

ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT

BEING CHAPTER E-12 R.S.A. 2000 (the "Act" or "EPEA")

Amendment No.1

to

ENFORCEMENT ORDER NO. EO-EPEA-1009

I, Elise Chamberland, Compliance Manager, Southern Region, designated Director for the purpose of section 243(1) of the Act, DO HEREBY AMEND Enforcement Order No. EO-EPEA-1009 ("Order") by:

- 1) deleting the words crossed out below from the Order; and
- 2) adding the underlined words below to the Order.

DATED at the City of Calgary in the Province of Alberta this 7th day of August, 2024.



Elise Chamberland
Compliance Manager (the Director)
Regulatory Assurance Division - South

Notwithstanding the above requirements, the Parties shall obtain all necessary approvals in complying with this order.

Take notice that this enforcement order is a remedial tool only, and in no way precludes any enforcement proceedings being taken regarding this matter under this Act or any other legislation.

Enerchem International Inc. ("Enerchem")
1700, 355 4th Avenue S.W.
Calgary, Alberta, Canada T2P 0J1

WHEREAS Enerchem is the owner of the Sundre Oil Refinery ("the Plant"), located at the 03-26-033-06 W5M, in Mountain View County, Alberta;

WHEREAS section 61 of the *Environmental Protection and Enhancement Act* ("EPEA") states that no person shall commence or continue an activity that is designated by the regulations as requiring an approval unless the person holds the required approval;

WHEREAS under the *Activities Designation Regulation* (A.R. 276/2003, as amended) ("Regulation"), activities included within Schedule 1 of the Regulation require an approval;

WHEREAS Schedule 1, Division 2, Part 8 Oil and Gas, para. (h)(i) of the Regulation states: (h) the construction, operation, or reclamation of (i) an oil refinery;

WHEREAS the Plant requires an approval pursuant to the Act and the Regulation;

WHEREAS Alberta Environment & Protected Areas ("EPA") records indicate that no EPEA approval has been issued to any person for the construction, operation and reclamation of the Plant;

WHEREAS Elise Chamberland, Compliance Manager, South Region, has been appointed a Director for the purposes of issuing and amending enforcement orders under the Act (the "Director");

WHEREAS the Director is of the opinion that Enerchem has contravened Section 61 of the Act and must take measures to comply with the Act and regulations;

THEREFORE, I, Elise Chamberland, the Director, pursuant to Section 210(1)(e) of the Act, DO HEREBY ORDER THAT:

1. Enerchem shall operate the Plant in accordance with all of the terms and conditions in the attached Schedule 1 to this Order, unless otherwise noted in this Order.
2. Enerchem shall conduct a site wide topological survey and submit options to the Director, to meet the requirements in 4.2.4 to 4.2.8 of Schedule 1, by February 2, 2024.
3. Enerchem shall be in compliance with 4.2.4 to 4.2.8 of Schedule 1 by the Order expiry date.
4. Enerchem shall submit a written plan to the Director to meet the requirements in 2.4.2 and 2.4.3 of Schedule 1, by May 31, 2024.
5. Enerchem shall be in compliance with 2.4.2 and 2.4.3 of Schedule 1, by the Order expiry date.

6. Enerchem shall implement the AltaGas memorandum titled “Updated Sundre Compliance Plan” (the “Plan) submitted to EPA on August 8, 2024, by the Order expiry date.
7. Enerchem shall submit status reports on the implementation of the Plan every third Monday of March, June, September, and December to the Director. The submission of status reports shall continue until the Order expiry date.
8. Enerchem shall submit an application for an *EPEA* approval ~~three~~ six months prior of the Order expire date.
9. This Order expires December 1, 2024 2025.

DATED at the City of Calgary, in the Province of Alberta, this 9 day of November 2023.

[Original signed and dated November 9, 2023]

Elise Chamberland
Compliance Manager
South Region

Section 91 of the *Act* may provide a right of appeal against this decision to the Alberta Environmental Appeals Board. There may be a strict time limit for filing such an appeal. A copy of section 91 is enclosed. For further information, please contact:

**The Board Secretary
Environmental Appeals Board
No. 306 Peace Hills Trust Tower
10011 – 109 Street NW
Edmonton, AB T5J 3S8
Telephone: (780) 427-6207
Fax: (780) 427-4693
Website: www.eab.gov.ab.ca**

Notwithstanding the above requirements, the Parties shall obtain all other necessary approvals in complying with this order.

Take notice that this enforcement order is a remedial tool only, and in no way precludes any enforcement proceedings being taken regarding this matter under the *Act* or any other legislation.

Schedule 1 – Operating Conditions: Enerchem International Inc. Sundre Oil Refinery

PART 1: DEFINITIONS

SECTION 1.1: DEFINITIONS

- 1.1.1 All definitions from the Act and the regulations apply except where expressly defined in this order.
- 1.1.2 In all PARTS of this order:
- (a) “Act” means the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c.E-12, as amended;
 - (b) “air effluent stream” means any substance in a gaseous medium released by or from a plant;
 - (c) “day”, when referring to sampling, means any sampling period of 24 consecutive hours;
 - (d) “decommissioning” means the dismantling and decontamination of a plant undertaken subsequent to the termination or abandonment of any activity or any part of any activity regulated under the Act;
 - (e) “decontamination” means the treatment or removal of substances from the plant and affected lands;
 - (f) “Director” means an employee of the Government of Alberta designated as a Director under the Act;
 - (g) “dismantling” means the removal of buildings, structures, process and pollution abatement equipment, vessels, storage facilities, material handling facilities, railways, roadways, pipelines and any other installations that are being or have been used or held for or in connection with the plant;
 - (h) “domestic wastewater” means wastewater that is the composite of liquid and water-carried wastes associated with the use of water for drinking, cooking, cleaning, washing, hygiene, sanitation or other domestic purposes, together with any infiltration and inflow wastewater, that is released into a wastewater collection system;
 - (i) “fugitive emissions” means emissions of substances to the atmosphere other than ozone depleting substances, originating from a plant source other than a flue, vent, or stack but does not include sources which may occur due to breaks or ruptures in process equipment;
 - (j) “ISO/IEC 17025” means the international standard, developed and published by International Organization for Standardization (ISO), specifying management and technical requirements for laboratories;
 - (k) “incompatible waste” means waste materials which could cause dangerous reactions from direct contact with one another;

- (l) "industrial runoff" means precipitation that falls on or traverses the plant developed area;
- (m) "industrial runoff control system" means the parts of the plant that collect, store or treat industrial runoff from the plant;
- (n) "industrial wastewater" means the composite of liquid wastes and water-carried wastes, any portion of which results from any industrial process carried on at the plant;
- (o) "local environmental authority" means the Department of Environment and Protected Areas, in the Province of Alberta, or the agency that has the equivalent responsibilities for any jurisdiction outside the Province;
- (p) "plant" means all buildings, structures, process and pollution abatement equipment, vessels, storage facilities, material handling facilities, roadways, railways, pipelines and other installations, and includes the land, located on the 03-26-033-06 W5M, that is being or has been used or held for or in connection with the Sundre Refinery;
- (q) "plant developed area" means the areas of the plant used for the storage, treatment, processing, transport, or handling of raw material, intermediate product, by-product, finished product, process chemicals, or waste material;
- (r) "regulations" means the regulations enacted pursuant to the Act, as amended;
- (s) "tank" means a stationary device, designed to contain an accumulation of a substance, which is constructed primarily of non-earthen materials that provide structural support including wood, concrete, steel, and plastic;
- (t) "waste storage area" means the area designated for storage of waste; and
- (u) "year" means calendar year, unless otherwise specified.

PART 2: GENERAL

SECTION 2.1: REPORTING

- 2.1.1 Enerchem shall immediately report to the Director by telephone any contravention of the terms and conditions of this order at 1-780-422-4505.
- 2.1.2 Enerchem shall submit a written report to the Director within 7 days of the reporting pursuant to 2.1.1.
- 2.1.3 Enerchem shall immediately notify the Director in writing if any of the following events occurs:
 - (a) Enerchem is served with a petition into bankruptcy;
 - (b) Enerchem files an assignment in bankruptcy or Notice of Intent to make a proposal;

- (c) a receiver or receiver-manager is appointed;
- (d) an application for protection from creditors is filed for the benefit of Enerchem under any creditor protection legislation; or
- (e) any of the assets which are the subject matter of this order are seized for any reason.

2.1.4 If Enerchem monitors for any substances or parameters which are the subject of operational limits as set out in this order more frequently than is required and uses procedures authorized in this order, then Enerchem shall provide the results of such monitoring as an addendum to the reports required by this order.

2.1.5 Enerchem shall submit all annual reports required by this order to be compiled or submitted to the Director on or before March 31 of the year following the year in which the information was collected, unless otherwise specified in this order.

SECTION 2.2: RECORD KEEPING

2.2.1 Enerchem shall:

- (a) record; and
- (b) retain

all the following information in respect of any sampling conducted or analyses performed in accordance with this order for a minimum of ten years, unless otherwise authorized in writing by the Director:

- (i) the place, date and time of sampling,
- (ii) the dates the analyses were performed,
- (iii) the analytical techniques, methods or procedures used in the analyses,
- (iv) the names of the persons who collected and analysed each sample, and
- (v) the results of the analyses.

SECTION 2.3: ANALYTICAL REQUIREMENTS

2.3.1 With respect to any sample required to be taken pursuant to this order, Enerchem shall ensure that:

- (a) collection;
- (b) preservation;
- (c) storage;
- (d) handling; and

(e) analysis

shall be conducted in accordance with the following unless otherwise authorized in writing by the Director:

- (i) for air:
 - (A) the *Alberta Stack Sampling Code*, Alberta Environment, 1995, as amended, and
 - (B) the *Air Monitoring Directive*, Alberta Environment and Parks, 2016, as amended,
- (ii) for industrial wastewater, industrial runoff, and groundwater and domestic wastewater:
 - (A) the *Standard Methods for the Examination of Water and Wastewater*, current edition, American Public Health Association, American Water Works Association, and the Water Environment Federation, 2017, as amended,
- (iii) for soil:
 - (A) the *Soil Monitoring Directive*, Alberta Environment, May 2009, as amended, and
 - (B) the *Soil Quality Criteria Relative to Disturbance and Reclamation*, Alberta Agriculture, March 1987, as amended; and
- (iv) for waste:
 - (A) the *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, USEPA, SW-846, September 1986, as amended,
 - (B) the *Methods Manual for Chemical Analysis of Water and Wastes*, Alberta Environmental Centre, Vegreville, Alberta, 1996, AECV96-M1 as amended,
 - (C) the *Toxicity Characteristic Leaching Procedure (TCLP)* USEPA Regulation 40 CFR261, Appendix II, Method No. 1311, as amended, or
 - (D) the *Standard Methods for the Examination of Water and Wastewater*, American Public Health Association, American Water Works Association, and the Water Environment Federation, 2010, as amended.

2.3.2 Enerchem shall analyse all samples that are required to be obtained by this order in a laboratory accredited pursuant to ISO/IEC 17025, as amended, for the specific parameter(s) to be analysed, unless otherwise authorized in writing by the Director.

- 2.3.3 The term sample used in (i) does not include samples directed to continuous monitoring equipment, unless specifically required in writing by the Director.
- 2.3.4 Enerchem shall comply with the terms and conditions of any written authorization issued by the Director under (i).

SECTION 2.4: OTHER

- 2.4.1 The terms and conditions of this order are severable. If any term or condition of this order or the application of any term or condition is held invalid, the application of such term or condition to other circumstances and the remainder of this order shall not be affected thereby.
- 2.4.2 All tanks shall conform to the *Guidelines for Secondary Containment for Above Ground Storage Tanks*, Alberta Environmental Protection, 1997, as amended, unless otherwise authorized in writing by the Director.
- 2.4.3 All above ground storage tanks containing liquid hydrocarbons or organic compounds shall conform to the *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks*, Canadian Council of Ministers of the Environment, PN 1180, 1995, as amended.

PART 3: CONSTRUCTION

Not used at this time.

PART 4: OPERATIONS, LIMITS, MONITORING AND REPORTING

SECTION 4.1: AIR

OPERATIONS

- 4.1.1 Enerchem shall not release any air effluent streams to the atmosphere except as authorized by this order.
- 4.1.2 Enerchem shall only release air effluent streams to the atmosphere from the following sources:
- (a) the hot oil heater (H-370);
 - (b) the two (2) salt bath heaters (H-290 and H-390);
 - (c) the storage tank heater (S-610);
 - (d) the storage tanks vents;
 - (e) the space ventilation exhaust stacks;
 - (f) the space heater exhaust vents;
 - (g) any other source authorized in writing by the Director.

- 4.1.3 Enerchem shall control fugitive emissions and any source not specified in 4.1.2 in accordance with 4.1.4 of this order unless otherwise authorized in writing by the Director.
- 4.1.4 With respect to fugitive emissions and any source not specified in 4.1.2, Enerchem shall not release a substance or cause to be released a substance that causes or may cause any of the following:
- (a) impairment, degradation or alteration of the quality of natural resources;
 - (b) material discomfort, harm or adverse effect to the well being or health of a person; or
 - (c) harm to property or to vegetative or animal life.
- 4.1.5 Enerchem shall not burn any debris by means of an open fire unless authorized in writing by the Director.

SECTION 4.2: INDUSTRIAL WASTEWATER

- 4.2.1 Enerchem shall not release any substances from the plant to the surrounding watershed except as authorized by this order.
- 4.2.2 Enerchem shall only dispose of industrial wastewater as follows:
- (a) to facilities holding a current Act authorization
 - (b) to an Alberta Energy Regulator approved facility;
 - (c) to facilities approved by a local environmental authority outside of Alberta; or
 - (d) as otherwise authorized in writing by the Director.
- 4.2.3 Enerchem shall use the following when transferring substances to, from, or between tanks, or between trucks:
- (a) couplings equipped with seals that are compatible with the substance transferred;
 - (b) the necessary precautions to prevent spills when the couplings are disconnected; and
 - (c) emergency shut-off valves.
- 4.2.4 Enerchem shall direct all industrial runoff from the plant developed area to the Industrial Runoff Control System.
- 4.2.5 Enerchem shall release collected industrial runoff back into the hydrological cycle whenever it is safe to do so, as described below:
- (a) releases from the industrial runoff control system must meet the following criteria:
 - (i) chloride content no greater than 500 mg/L;

- (ii) pH between 6.0 to 9.0;
- (iii) no visible hydrocarbon sheen, floating solids and/or visible foam;
- (iv) no contamination has occurred (e.g., clean operating conditions such that collected industrial runoff is not impacted by spills or releases);
- (v) water will not flow directly, including via ditches, into any watercourse;
- (vi) release is controlled;
- (vii) each release is recorded, including the pre-release test data and the estimated volume of industrial runoff released; and
- (viii) landowner or occupant on occupied public land (e.g., grazing lease holder) consents when releasing industrial runoff from the plant.

4.2.6 Enerchem must send industrial runoff that does not meet the criteria in 4.2.5 to an approved facility for treatment or disposal, be treated on site to meet discharge criteria prior to release or used in other applications in accordance with any relevant requirements.

4.2.7 Where contamination of the industrial runoff has occurred, Enerchem shall release industrial runoff as follows:

- (a) to facilities holding a current Act authorization;
- (b) to an Alberta Energy Regulator approved facility;
- (c) to facilities approved by a local environmental authority outside of Alberta; or
- (d) as otherwise authorized in writing by the Director.

4.2.8 Enerchem shall report to the Director the results of the Industrial Runoff Control System monitoring as required by 4.2.5 and 4.2.7 in the annual Industrial Wastewater and Industrial Runoff Report.

MONITORING AND REPORTING

4.2.9 Enerchem shall submit an annual Industrial Wastewater and Industrial Runoff Report to the Director.

4.2.10 The annual Industrial Wastewater and Industrial Runoff Report shall include, at a minimum, all of the following information:

- (a) an assessment of the performance of the:
 - (i) Industrial wastewater control system, and
 - (ii) Industrial runoff control system;
- (b) a summary assessment of the results of the monitoring required by 4.2.5 (a);

- (c) an overview of the operation of the plant;
- (d) a summary and evaluation of management and disposal of the industrial wastewater for the previous year;
- (e) a summary and evaluation of management and disposal of industrial runoff for the previous year; and
- (f) any other information as required in writing by the Director.

SECTION 4.3: WASTE MANAGEMENT

4.3.1 Enerchem shall dispose of waste generated at the plant only:

- (a) to facilities holding a current Act authorization;
- (b) to an Alberta Energy Regulator approved facility;
- (c) to facilities approved by a local environmental authority outside of Alberta; or
- (d) as otherwise approved in writing by the Director.

4.3.2 Enerchem shall not:

- (a) receive; or
- (b) store

any third party waste at the plant.

4.3.3 Enerchem shall:

- (a) treat; and
- (b) store

waste generated at the plant in accordance with this order.

4.3.4 Enerchem shall store hazardous waste or hazardous recyclables stored in containers or tanks in accordance with the *Hazardous Waste Storage Guidelines*, June 1988, Alberta Environment, as amended.

4.3.5 Enerchem shall not:

- (a) transfer;
- (b) treat; or
- (c) store

waste or recyclables in an amount or in a manner that will cause or may cause an adverse effect on human health or the environment.

4.3.6 Enerchem shall not:

- (a) treat; or
- (b) store

waste or recyclables at the plant in an amount or in a manner that causes or may cause:

- (i) fire,
- (ii) explosion,
- (iii) violent reaction,
- (iv) emission of toxic dust, mist, fumes or gases, or
- (v) emission of flammable fumes or gases.

4.3.7 Enerchem shall store waste generated at the plant only in the waste storage area.

4.3.8 Enerchem shall:

- (a) provide and maintain an adequate aisle space between containers in the waste storage area to allow:
 - (i) inspection, and
 - (ii) unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of the waste storage area; and
- (b) arrange inspection aisles in the waste storage area such that the identification label on each container is readable.

4.3.9 Enerchem shall prevent direct contact of incompatible waste with one another.

MONITORING AND REPORTING

4.3.10 Prior to the consignment or storage of any waste generated at the plant, Enerchem shall:

- (a) identify;
- (b) characterize; and
- (c) classify

the waste but not including industrial runoff and air effluent streams, in accordance with the:

- (i) *Industrial Waste Identification and Management Options*, Alberta Environment, May 1996, as amended, and

- (ii) *Alberta User Guide for Waste Managers*, Alberta Environment, August 1996, as amended.

- 4.3.11 Enerchem shall measure or, when not practical to measure, estimate the quantity of waste generated at the facility each year.
- 4.3.12 Enerchem holder shall maintain a daily inventory of waste stored in the waste storage area.
- 4.3.13 Enerchem shall submit a copy of the daily inventory required in 4.3.12 when requested by the Director.
- 4.3.14 Enerchem shall compile all the information required by 4.3.10 and 4.3.11 in an Annual Waste Management Summary Report:
 - (a) as indicated in 0; and
 - (b) in accordance with the:
 - (i) *Industrial Waste Identification and Management Options*, Alberta Environment, May 1996 as amended, and
 - (ii) *Alberta User Guide for Waste Managers*, Alberta Environment, August 1996, as amended.

TABLE 4.3-A ANNUAL WASTE MANAGEMENT SUMMARY

Waste Name	Uniform Waste Code				Quantity (kg or L)		Stored	Recycled		Disposed	
	WC	PIN	Class	Mgmt	Hazardous	Non-hazardous	On-site	On-site	Off-site	On-site	Off-site
TOTAL											

- 4.3.15 Enerchem shall submit the Annual Waste Management Summary Report to the Director.

SECTION 4.4: DOMESTIC WASTEWATER

OPERATIONS

- 4.4.1 Enerchem shall not release any substances from the domestic wastewater system to the surrounding watershed except as authorized by this order.
- 4.4.2 Enerchem shall direct all domestic wastewater to the domestic wastewater system.
- 4.4.3 Enerchem shall operate a domestic wastewater system which shall include, at a minimum, all of the following:

- (a) a domestic wastewater collection system and the transmission line(s) to the septic tank; and
- (b) a septic tank

unless otherwise authorized in writing by the Director.

4.4.4 Enerchem shall dispose of domestic wastewater generated at the plant only:

- (a) at domestic wastewater treatment facility, authorized under the Act;
- (b) to facilities approved by a local environmental authority outside of Alberta; or
- (c) as otherwise authorized in writing by the Director.

4.4.5 Enerchem shall only dispose of sludge produced by the domestic wastewater system at a domestic wastewater treatment facility holding a current order under the Act unless otherwise authorized in writing by the Director.

SECTION 4.5: GROUNDWATER

Not used at this time.

SECTION 4.6: SOIL

Not used at this time.

PART 5: FINANCIAL SECURITY REQUIREMENTS

Not used at this time.

PART 6: DECOMMISSIONING AND LAND RECLAMATION

SECTION 6.1: GENERAL

6.1.1 Enerchem shall apply for an amendment to this order to reclaim the plant by submitting a:

- (a) Decommissioning Plan; and
- (b) Land Reclamation Plan

to the Director.

6.1.2 Enerchem shall submit the:

- (a) Decommissioning Plan; and
- (b) Land Reclamation Plan

referred to in 6.1.1 within six months of the plant ceasing operation, except for repairs and maintenance, unless otherwise authorized in writing by the Director.

SECTION 6.2: DECOMMISSIONING

6.2.1 The Decommissioning Plan referred to in 6.1.1 shall include, at a minimum, all of the following:

- (a) a plan for dismantling the plant;
- (b) a comprehensive study to determine the nature, degree and extent of contamination at the plant and affected lands;
- (c) a plan to manage all wastes at the plant;
- (d) evaluation of remediation technologies proposed to be used at the plant and affected lands;
- (e) a plan for decontamination of the plant and affected lands in accordance with the following:
 - (i) for soil or groundwater, *Alberta Tier 1 Soil and Groundwater Remediation Guidelines*, Alberta Environment and Protected Areas, August 2022, as amended,
 - (ii) for soil or groundwater, *Alberta Tier 2 Soil and Groundwater Remediation Guidelines*, Alberta Environment and Protected Areas, August 2022, as amended, and
 - (iii) for surface water, *Environmental Quality Guidelines for Alberta Surface Waters*, Alberta Environment and Parks, 2018, as amended;
- (f) confirmatory testing to indicate compliance with the remediation objectives;
- (g) a plan for maintaining and operating contaminant monitoring systems;
- (h) a schedule for activities (a) through (g) above; and
- (i) any other information as required in writing by the Director.

6.2.2 If the Decommissioning Plan is found deficient by the Director, Enerchem shall correct all deficiencies identified in writing by the Director by the date specified in writing by the Director.

SECTION 6.3: LAND RECLAMATION

6.3.1 The Land Reclamation Plan referred to in 6.1.1 shall include, at a minimum, all of the following:

- (a) the final use of the reclaimed area and how equivalent land capability will be achieved;
- (b) removal of infrastructure;
- (c) restoration of drainage;

- (d) soil replacement;
- (e) erosion control;
- (f) revegetation and conditioning of the plant including:
 - (i) species list, seed source and quality, seeding rates and methods,
 - (ii) fertilization rates and methods, and
 - (iii) wildlife habitat plans where applicable;
- (g) reclamation schedule; and
- (h) any other information as required in writing by the Director.

6.3.2 If the Land Reclamation Plan is found deficient by the Director, Enerchem shall correct all deficiencies identified in writing by the Director by the date specified in writing by the Director.