

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 4283-D39NYC  
Issue Date: April 11, 2024

Air Products Canada Ltd.  
20 Indian Road South  
Sarnia, Ontario  
N7T 3W8

Site Location: Air Products Canada Ltd. - 20 Indian Road South  
20 Indian Rad South  
Sarnia City, County of Lambton  
N7T 3W8

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

**Description Section**

A liquid hydrogen production facility, consisting of the following processes and support units:

- one (1) two-cell cross flow cooling tower to cool 20,817.5 litres per minute of water.;
- one (1) chiller with a cooling capacity of 210 tons refrigeration;
- two (2) natural gas-fired boilers, each having a maximum thermal input of 10,600,000 kilojoules per hour, exhausting to the atmosphere at an actual volumetric flow rate of 1.89 cubic metres per second at an approximate temperature of 174 degrees Celsius, through a stack having an exit diameter of 0.65 metre, extending 24.4 metres above grade;
- one (1) stand-by diesel generator set, having a rating of 317 kilowatts, to provide power during emergency situations, exhausting to the atmosphere at an actual volumetric flow rate of 1.22 cubic metres per second at an approximate temperature of 600 degrees Celsius, through a stack having an exit diameter of 0.13 metre, extending 4.9 metres above grade; and
- glycol/water storage tanks;

including the Equipment and any other ancillary and support processes and activities, operating at a Facility production limit of up to twenty-six (26) tonnes per day, discharging to the air. The supply of raw feed gas stream, via pipelines, is from one (1) or more of the following neighbouring sources:

- Nova Chemicals (Canada) Ltd.;
- Corunna (Sarnia) Hydrogen Plant;
- Suncor Refinery; and
- Imperial Oil Refinery;

all in accordance with the:

- Environmental Compliance Approval Application dated December 8, 2023 and signed by Rod Douglass, Air Products Canada Ltd., and all supporting information associated with the application including Emission Summary and Dispersion Modelling Report provided by ERM Consultants Canada Ltd., dated December 11, 2023, the Acoustic Assessment Report prepared by HGC Engineering, dated March 20, 2024 and signed by Petr Chocensky, and emails dated March 15, March 18 and March 19, 2024, signed by Tara Weerasuriya; and
- Application for Approval (Air & Noise) signed by Jeffrey L. Byrne of Air Products Canada Ltd., dated February 13, 2006, the supporting documentation submitted by AMEC Americas Limited with the application, the additional information provided by AMEC Americas Limited and the Application for Approval (Air) dated August 17, 1992 together with the supporting documentation and additional information associated with the application.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility. "Acoustic Assessment Report" also means the Acoustic Assessment Report prepared by HGC Engineering, dated March 20, 2024 and signed by Petr Chocensky;
2. "Approval" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
3. "Building Code Act, 1992" means the Building Code Act, S.O. 1992, c.23, as amended and any replacement or successor legislation;
4. "Company" means Air Products Canada Ltd. that is responsible for the construction or operation of the Facility and includes any successors and assigns in accordance with section 19 of the EPA;
5. "Director" means a person appointed for the purpose of section 20.3 of the EPA by the Minister pursuant to section 5 of the EPA;
6. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
7. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;

8. "Equipment" means the equipment, processes and associated exhaust system described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;
9. "Facility" means the entire operation located on the property where the Equipment is located;
10. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
11. "Ministry" means the ministry of the government of Ontario responsible for the EPA and includes all officials, employees or other persons acting on its behalf;
12. "Noise Control Measures" means measures to reduce the noise emission from the Facility including, but not limited to silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures outlined in sections 4 and 8 of the Acoustic Assessment Report;
13. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995 as amended; and
14. "Publication NPC-300" means the Ministry Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August 2013, as amended.

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **1. OPERATION AND MAINTENANCE**

1. The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:
  - a. prepare, not later than three (3) months after the date of this Approval, and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:
    - i. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
    - ii. emergency procedures, including spill clean-up procedures;
    - iii. procedures for any record keeping activities relating to operation and maintenance of the

Equipment; and

- iv. all appropriate measures to minimize noise and odorous emissions from all potential sources; and
  - b. implement the recommendations of the Manual.
2. The Company shall ensure that when operating with raw feed gas from Nova Chemicals (Canada) Ltd., the residual gas resulting from the removal of hydrogen from the raw feed gas stream(s) shall be delivered back to Nova Chemicals (Canada) Ltd.
  3. The Company shall ensure that when operating with raw feed gas from Corunna (Sarnia) Hydrogen Plant, Suncor Refinery and Imperial Oil Refinery, the residual gas resulting from the removal of hydrogen from the raw feed gas stream(s) shall be exhausted into the atmosphere through Stack E, extending 21.5 metres above grade; and Stack T2, extending 23.0 metres above grade, both in Air Products Canada Ltd.

## **2. RECORD RETENTION**

1. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this Approval, and make these records available for review by staff of the Ministry upon request. The Company shall retain:
  - a. all records on the maintenance, repair and inspection of the Equipment; and
  - b. all records of any environmental complaints, including:
    - i. a description, time and date of each incident to which the complaint relates;
    - ii. wind direction at the time of the incident to which the complaint relates; and
    - iii. a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

## **3. NOTIFICATION OF COMPLAINTS**

1. The Company shall notify the District Manager, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:
  - a. a description of the nature of the complaint; and
  - b. the time and date of the incident to which the complaint relates.

#### **4. NOISE**

1. The Company shall:
  - a. at all times, ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300;
  - b. implement by not later than twelve (12) months after the issuance of an above grade building permit under the Building Code Act, 1992, the Noise Control Measures outlined in section 8 of the Acoustic Assessment Report, for a building on the vacant lands zoned "Rural 1" south of the Facility; and
  - c. properly maintain the Noise Control Measures outlined in sections 4 and 8 of the Acoustic Assessment Report ensuring that they continue to meet the acoustical performance outlined in the Acoustic Assessment Report.

#### **5. CHANGE OF OWNERSHIP**

1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manger, within thirty (30) days of the occurrence of any changes to facility operations;
  - a. the ownership of the Facility;
  - b. the operator of the Facility;
  - c. the address of the Company;
  - d. the partners, where the Company is or any time becomes a partnership and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c. B.17, shall be included in the notification;
  - e. the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C.39, shall be included in the notification.
2. In the event of any change in ownership of the Facility, the Company shall notify the successor of the existence of this Approval and provide the successor with a copy of this Approval, and the Company shall provide a copy of the notification to the District Manager and the Director.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition No. 1 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.

2. Condition No. 2 is included to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the EPA, the Regulations and this Approval can be verified.
3. Condition No. 3 is included to require the Company to notify staff of the Ministry so as to assist the Ministry with the review of the site's compliance.
4. Condition No. 4 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.
5. Condition No. 5 is included to require the Company to notify/report to the Ministry so that compliance with the EPA, the regulations and this Approval can be verified.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 9368-6QHRXF issued on June 9, 2006.**

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights*, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act*, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

and

The Minister of the Environment,  
Conservation and Parks  
777 Bay Street, 5th Floor  
Toronto, Ontario  
M7A 2J3

and


The Director appointed for the purposes of  
Part II.1 of the *Environmental Protection Act*  
Ministry of the Environment,  
Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

\* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.gov.on.ca)

This instrument is subject to Section 38 of the *Environmental Bill of Rights*, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 11th day of April, 2024



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Nancy E Orpana, P.Eng.  
Director  
appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

AA/

c: District Manager, MECP Sarnia District Office  
Catherine Vo, Air Products and Chemicals, Inc.