

**ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER A-500-7215733494

Version: 1.0

Issue Date: April 11, 2024

*Pursuant to section 20.3 of the Environmental Protection Act, Revised Statutes of Ontario (R.S.O.) 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:*

Darling International Canada Inc.

485 PINEBUSH ROAD ,UNIT 101  
CAMBRIDGE ONTARIO  
N1T 0A6

*For the following site:*

880 Highway 5 West, Hamilton, HAMILTON CITY, ONTARIO, CANADA, L9H 5G1

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s) 6340-8QPTWM, issued on February 28, 2012.

*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:*

### **Biological Oxidation System**

one (1) biological oxidation system, designated B1O1, serving an existing rendering facility that receives Animal and Vegetable By-products, and produces during times of maximum production an average of 39 tonnes per hour of combined finished products consisting of:

- up to 26 tonnes per hour of finished protein meal and tallow combined;
- up to 1 tonne per hour of finished blood meal; and
- up to 21 tonnes per hour of finished yellow grease.

The system consists of a common pre-conditioning chamber for humidification of supply air, a reactor vessel separated into six individual biofilter cells containing a total of not less than 4,200 cubic metres and up to 4,600 cubic metres of inorganic media to a depth of not less than 1.68 metres and up to 1.85 metres, an automated media irrigation system and six (6) fans, serving the rendering processes and rooms, exhausting into the atmosphere at a volumetric flow rate of 118 cubic metres per second through a common stack, having an exit diameter of 2.74 metres, extending 45 metres above grade. The system handles the exhaust from the following sources:

- one (1) Used Cooking Oil evaporation system equipped with an air-cooled condenser, with a capacity of up to 11 tonnes of finished yellow grease per hour;
- one (1) venturi scrubber, designated as Venturi #3 (V3), used to treat particulate emissions from the grease melting and solid separation operations, the tallow work tank and the milling area, equipped with a venturi measuring 0.23 metres by 1.52 metres and a mist eliminator, having a volumetric flow rate of 14.2 cubic metres per second;
- one (1) two-stage primary scrubber operating in series, designated as PPT1, to control emissions from presses and conveyors, having a volumetric flow rate of 5.66 cubic metres per second, consisting of:

- one (1) venturi scrubber; followed by
- one (1) packed tower scrubber that uses sodium hypochlorite scrubbing solution, an automated pH and ORP chemical monitor and control system for the delivery of sodium hypochlorite to the scrubber;
- one (1) two-stage primary scrubber operating in series, designated as PPT2, to treat process gas from two blood dryer cyclones as well as non-condensable gases from the evaporators, having a volumetric flow rate of 5.27 normal cubic metres per second, consisting of:
  - one (1) venturi scrubber; followed by
  - one (1) packed tower scrubber that uses sodium hypochlorite scrubbing solution, an automated pH and ORP chemical monitor and control system for the delivery of sodium hypochlorite to the scrubber, having a diameter of 1.5 metres, a packing height of 2.6 metres, consisting of polypropylene packing, a maximum volumetric scrubbing solution flow rate of 454 litres per minute.
- exhaust from twenty-four (24) tallow tanks, connected in parallel, with a maximum filling rate of 14 litres per second.
- exhaust from a maximum of five (5) decanting tanks, and two (2) finished product grease storage tanks, with a maximum tank filling rate of 20 litres per second. Only one (1) decanting tank and one (1) finished product grease storage tank will be filled at the same time.
- one (1) truck storage building, used to enclose a maximum of twenty-two (22) incoming raw material trucks or trailers of offal, bone or deadstock, with dimensions about 98 metres in length and 16 metres in width, and equipped with truck doors all on same side of the building.

#### **Wet surface air condenser**

- one (1) wet surface air condenser used to condense some of the vapours from three (3) evaporators, equipped with two fans, designated WSAC1 and WSAC2, having a total volumetric flow rate of 73.1 actual cubic metres per second, discharging at 6.1 metres above grade.

#### **Combustion Equipment**

- one (1) water tube boiler (B1) firing on natural gas (No. 2 gas fuel oils as backup), having a maximum heat input of 67,625,500 kilojoules per hour, exhausting to the atmosphere in either or a combination of the following two (2) means:
  - through a stack having an exit diameter of 1.07 metres and extending 13.72 metres above the roof and 21.34 metres above grade, at a maximum volumetric flow rate of 13.81 cubic metres per second at an approximate temperature of 324 degrees Celsius;
  - through the three-stage Boiler Energy Recovery System (ERS) consisting of an induced draft fan, heat exchangers and the ERS stack (Stack ERS1), in which the exhaust gases of the boiler B1 are drawn by the fan through heat exchangers to recover heat from the boiler exhaust gases to preheat the boiler feed water, boiler make-up water and facility process hot water. The boiler exhaust gases exit the heat exchangers and exhaust to the atmosphere through the stack ERS1 having an exit diameter of 0.76 metre and extending 12 metres above grade, at a maximum volumetric flow rate of 9.44 cubic metres per second at an approximate temperature of 129 degrees Celsius. The instantaneous boiler exhaust gas flow through the ERS is controlled according to the feed and make-up water demand of the facility. There is also an interlock to allow the operation of the ERS only when boiler B1 is firing on natural gas;
- one (1) water tube boiler (B2), retrofitted with a low NO<sub>x</sub> burner, used to fire natural gas (No. 2 fuel oil as backup), having a maximum heat input of 51,019,290 kilojoules per hour exhausting to the atmosphere at a maximum volumetric flow rate of 9.30 cubic metres per second at an approximate temperature of 324 degrees Celsius, through a stack having an exit diameter of 1.07 metre, extending 13.72 metres above the roof and 21.34 metres above grade; and
- one (1) natural gas fired boiler (B3), having a maximum heat input of 51,000,000 kilojoules per hour exhausting to the atmosphere through the heat exchanger through a stack having an exit diameter of 0.96 metre, extending 5.6 metres above the roof and 16.3 metres above grade; and

- one (1) standby natural gas fired boiler (B4), having a maximum heat input of 21,000,000 kilojoules per hour exhausting to the atmosphere through a stack having an exit diameter of 0.63 metre, extending 2.5 metres above the roof and 10.12 metres above grade;

all in accordance with the Application for Approval (Air) submitted by Darling International Canada Inc., dated March 14, 2023, and signed by Erica Carabott; and the supporting information, including the Emission Summary and Dispersion Modelling Report, submitted by Ramboll Canada Inc., dated December 14, 2022, and signed by Paul Geisberger; E-mails, submitted by Darling International Canada Inc., dated January 22, February 22 and March 27, 2024, and signed by Duff Moore and the Acoustic Assessment Report dated March 13, 2023 prepared by Ramboll Canada Inc., and signed by Buddy Ledger.

## DEFINITIONS

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*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, by Buddy Ledger of Ramboll Canada Inc. and dated March 13, 2023 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility.
2. "Animal and Vegetable By-products" means materials, including deadstock as defined in Disposal of Deadstock regulation under the Food Safety and Quality Act, that are permitted to be processed in the Facility.
3. "Approval" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
4. "Company" means Darling International Canada Inc. 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. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
6. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
7. "Equipment" means the equipment described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;
8. "Facility" means the entire operation located on the property where the Equipment is located;
9. "Management Practice" means a set of documents that provides written instructions to staff of the Company.
10. "Manager" means the Manager, Technology Standards Section, Standards Development Branch of the Ministry, or any other person who represents and carries out the duties of the Manager, as those duties relate to the conditions of this Certificate.
11. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
12. "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;
13. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers. It also means the Noise Control Measures identified in the Acoustic Assessment Report.
14. "Odour Objective" means the maximum 10-minute average concentration of odour measured at the most impacted Sensitive Receptor, computed in accordance with Schedule 1, resulting from the operation of the Facility, including fugitive emissions, of not greater than 1.0 odour unit under all atmospheric conditions.

15. "ORP" means oxidation-reduction potential of the scrubbing solution.
16. "pH" means the negative logarithm of the hydrogen ion concentration in moles per litre.
17. "Point of Impingement" means any point in the natural environment. The point of impingement for the purposes of verifying compliance with the EPA shall be chosen as the point located outside the Company's property boundaries at which the highest concentration is expected to occur, when that concentration is calculated in accordance with the Appendix to Regulation 346 written under the EPA, or any other method accepted by the Director.
18. "Pre-Test Information" means the information outlined in Section 1 of the Source Testing Code.
19. "Provincial Officer" means the Provincial Officer, as defined under Section 1 of the EPA.
20. "Publication NPC-233" means Ministry Publication NPC-233 "Information to be Submitted for Approval of Stationary Sources of Sound" , October 1995.
21. "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.
22. "Sensitive Receptor" means any location where there are human activities such as residences, nursing homes, daycare facilities, hospitals, schools, parklands, recreational facilities, play grounds, commercial plazas and office buildings.
23. "Source Testing Code" means the Source Testing Code, Version 2, Report No. ARB-66-80, dated November 1980, prepared by the Ministry, as amended.
24. "Source Testing" means sampling and testing to measure odour emissions as required under this Certificate from the biological oxidation exhaust system at a location after the exhaust of the truck storage building is connected to the system and well-mixed with exhaust from the cells of the biological oxidation system, under process conditions which represent a maximum operating range within the approved operating range of the Facility.

## TERMS AND CONDITIONS

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

### 1. GENERAL CONDITION

Except as otherwise provided by these Conditions, the Company shall design, build, install, operate and maintain the Facility in accordance with the description given in this Approval, the application for Approval of the equipment and the submitted supporting documents and plans and specifications as listed in this Approval.

2. Where there is a conflict between a provision of any submitted document referred to in this Approval and the Conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the listed submitted documents, the document bearing the most recent date shall prevail.

### 3. PERFORMANCE CONDITIONS

The Company shall:

1. ensure that the noise emissions from the Facility comply with the limits set in Ministry Publication NPC-300;
2. ensure that the Noise Control Measures identified in the Acoustic Assessment Report are incorporated at the Facility; and
3. ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

### 4. Odour Performance Limit

The Company shall operate and maintain the Facility so that the maximum 10-minute average concentration of odour measured at the most impacted Sensitive Receptor, computed in accordance with Schedule 1, resulting from the

operation of the Facility, including fugitive emissions, shall not be greater than 5.0 odour units under all atmospheric conditions.

#### 5. Odour Objective

The Company shall implement the updated Control and Implementation Plan contained in the Work Plan and Schedule dated 29 December, 2006 and submitted to the Director and the District Manager which described how the Company proposed to mitigate odour impact on the most impacted Sensitive Receptors and how the Company proposed to meet the Odour Objective.

#### 6. MONITORING

The Company shall monitor the following physical parameters of the biological oxidation system:

1. process air flow through each cell;
  2. differential pressure across media bed in each cell;
  3. media temperature in each cell;
  4. inlet air temperature (after pre-conditioning chamber);
  5. process air relative humidity (after pre-conditioning chamber); and
  6. water flow of both the humidification water (pre-conditioning chamber) and the media irrigation water.
7. The Company shall monitor and record, at least once daily while operating, the combined temperature of blood dryer cyclone effluent and the temperature of non-condensable gases, as measured by the thermocouples, in accordance with Schedule 2, in their respective discharge ducts before the common manifold leading to the primary scrubber PPT2.

#### 8. OPERATION AND MAINTENANCE

The Company shall ensure that the Equipment is properly operated and maintained at all times. The Company shall:

1. 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:
  - a. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
  - b. emergency procedures, including spill clean-up procedures;
  - c. procedures for any record keeping activities relating to operation and maintenance of the Equipment;
  - d. frequency of inspection and cleaning of the mist eliminator, packed tower scrubbers, preconditioning unit and biofilter cells inorganic media;
  - e. frequency of inspection of the flow rate, ORP and pH value of the scrubbing solution in packed tower scrubbers;
  - f. tracking system to determine the usage rate of sodium hypochlorite in scrubbers;
  - g. tracking system to determine the production rate of finished products;
  - h. instructions for any record keeping activities relating to the operation and maintenance of the Equipment and the odour and noise related activities at the Facility; and
  - i. all appropriate measures to minimize noise and odour emissions from all potential sources, including but not be limited to unloading and raw material storage procedures, management procedures to ensure that the trucks or trailers containing Animal and Vegetable By-products with the highest potential for odour

are either unloaded first and the raw materials immediately transferred to receiving pits and stored within the facility under negative pressure and processed as quickly as practical, or stored in the truck storage building immediately upon arrival at the Facility so that in case the truck storage building is full, only the least odorous trucks or trailers are parked outdoor; and a contingency plan to deal with the storage of raw materials when the Facility is shut down;

2. prepare operational procedures to adequately cover the raw materials in the trailers with tarps to alleviate fugitive odour emissions, when the outside temperature is above zero degree Celsius, for inclusion in the operating and maintenance Manual;
  3. prepare, prior to receiving dead stock, and update as necessary, a Management Practice outlining the operating procedures pertaining to dead stock to be included in the Manual, having:
    - a. routine operating and maintenance procedures in accordance with good engineering practices;
    - b. emergency procedures;
    - c. procedures for any record keeping activities relating to operation and maintenance;
    - d. a contingency plan to deal with the storage of dead stock when the Facility is shut down;
    - e. all appropriate measures to minimize odorous emissions from all potential sources;
  4. implement the recommendations of the Management Practice;
  5. ensure that staffing, training of staff, process controls, quality assurance, quality control procedure of or in relation to the Facility are adequate to achieve compliance with this Approval;
  6. maintain, at the Facility, an inventory of critical spare parts for the Equipment, including the scrubbers PPT1 and PPT2 and the venturi #3 (V3) that can be installed in the event of failure. A list of critical spare parts shall be documented in the Manual;
  7. update, as necessary, the protocol that has been submitted to the District Manager for the procedures for responding to complaints; and
  8. implement the procedures of the operating and maintenance Manual.
9. The Company shall, whenever the outside temperature is above zero degrees Celsius, provide all raw material trailers with tarps and have the raw materials covered by the tarps in accordance with the operational procedures in the Manual to alleviate fugitive odour emissions.
10. The Company shall keep all windows in the production areas fully closed whenever there is unprocessed material in the Facility.
11. The Company shall keep all doors fully closed in the production areas of the Facility, except when being used for necessary personnel and/or vehicle entrance and exit, whenever there is unprocessed material in the Facility.
12. The Company shall keep all doors in the truck storage building fully closed at all times except when being used for necessary personnel and/or truck/trailer entrance and exit, and shall establish procedures to ensure that only one truck door is open at any time.
13. The Company shall ensure that the truck storage building and all production areas in the Facility are operated under negative pressure.
14. **SOURCE TESTING**  
The Company shall perform Source Testing to determine the rates of emission of odour from the biological oxidation system exhaust.
15. The Company shall quantify fugitive odour emissions from the Facility. The fugitive sources which the emissions are to be quantified include, but not be limited to, the following:

1. one (1) lagoon #2 or Pond B, one (1) aeration basin and one (1) clarifier in the wastewater treatment system; and
  2. one (1) stormwater control basin.
16. The Company shall implement a test protocol approved by the Manager. The test protocol shall include the Pre-test Information for fugitive odour emission measurements and the Source Testing required by the Source Testing Code.
  17. The Company shall not perform Source Testing and fugitive odour emission measurements required under this Approval until the Manager has accepted the test protocol.
  18. The Company shall notify the District Manager and the Manager in writing of the location, date and time of any impending Source Testing and fugitive odour emission measurements required by this Approval, at least fifteen (15) days prior to the Source Testing and fugitive odour emission measurements.
  19. The Company shall submit all reports on the Source Testing and fugitive odour emission measurements to the District Manager and the Manager not later than two (2) months after completing the Source Testing and fugitive odour emission measurements. The report shall be in the format described in the Source Testing Code, and shall also include, but not be limited to:
    1. an executive summary;
    2. an updated emission inventory;
    3. records of weather conditions such as ambient temperature and relative humidity, all operating conditions of the Facility including hourly processing rate of the material, volumetric flow rate to the biological oxidation system, and ORP and pH values of the scrubbing solution in scrubbers; and
    4. the results of dispersion calculations taking into account fugitive odour emissions, indicating the maximum 10-minute average concentration for odour at the Point of Impingement and at the most impacted Sensitive Receptor computed in accordance with Schedule 1.
  20. The Director may not accept the results of the Source Testing if:
    1. the Source Testing Code or the requirements of the Manager were not followed; or
    2. the Company did not notify the District Manager and the Manager of the Source Testing and fugitive odour emission measurements; or
    3. the Company failed to provide a complete report on the Source Testing and fugitive odour emission measurements.
  21. If the Director does not accept the results of the Source Testing and fugitive odour emission measurements, the Director may require re-testing.
  22. The Company shall perform, in consultation with the District Manager, subsequent annual Source Testing to determine the rates of emission of odour from the biological oxidation system exhaust in accordance with Condition No. 14, as well as fugitive odour emission measurements in accordance with Condition No. 15 above, once during each year of operation.
  23. The Director may not require subsequent annual testing of all or part of the fugitive odour emission measurements if the results of the fugitive odour measurements indicate that the environmental impact from the fugitive sources is insignificant and/or that the emissions from the fugitive sources have already been sufficiently characterized as determined by the Director.
  24. The Company shall submit to the Manager and District Manager no later than March 31 of each year, a report. The report shall:
    1. discuss the results of the previous year Point of Impingement calculations;

2. list the improvements to the Facility and operations for odour reduction implemented in the previous year;
3. discuss the status of the wet surface air condenser;
4. list the improvements to the Facility and operations for odour reduction planned for the current year; and
5. include a summary of all the monitoring data specified in Condition No. 26(2) through 26(6) and Condition No. 26(9) through 26(10) inclusive.

## **25. NOTIFICATION OF COMPLAINTS**

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:

1. a description of the nature of the complaint; and
2. the time and date of the incident to which the complaint relates.

## **26. RECORD RETENTION**

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 operation, maintenance and monitoring activities required by this Certificate. These records as well as the Manual including Management Practice shall be made available to staff of the Ministry upon request. The Company shall retain:

1. all records on the maintenance, repair and inspection of the Equipment, including scrubbers;
2. all records of the following:
  - a. process air flow through each cell;
  - b. differential pressure across media bed in each cell;
  - c. media temperature in each cell;
  - d. inlet air temperature (after pre-conditioning chamber); and
  - e. water flow of both the humidification water (pre-conditioning chamber) and the media irrigation water.
3. daily records of process air relative humidity (after the pre-conditioning chamber);
4. all records of fan failure (no process air flow) and pump failure (no humidification water flow);
5. all records of the combined temperature of blood dryer cyclone effluent and the temperature of non-condensable gases;
6. usage record of sodium hypochlorite in the scrubbers;
7. all records on the amounts of incoming raw material with potential odour impact, on a daily basis;
8. all records of incoming dead stock on a daily basis;
9. all records on the production rate of finished products;
10. all measures taken to minimize odour emissions from all potential sources; and
11. all records on the environmental complaints.

## **27. CHANGE OF OWNERSHIP**

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;

1. the ownership of the Facility;
2. the operator of the Facility;
3. the address of the Company;
4. 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*, S.O. 1990, c. B.17, shall be included in the notification;
5. 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.

28. 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.

## REASONS

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

1. Conditions No. 1 and 2 are imposed to ensure that the Facility is built and operated in the manner in which they were described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.
2. Conditions No. 3 to 7, inclusive, are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.
3. Conditions No. 8 to 13, inclusive, are included to emphasize that the Equipment and the Facility must be maintained and operated according to a procedure that will result in compliance with the EPA, the regulation and this Approval can be verified.
4. Conditions No. 14 to 24, inclusive, are included to require the Company to gather accurate information so that compliance with the EPA, the regulation and this Approval can be verified.
5. Condition No. 25 is included to require the Company to notify the Ministry so that the environmental impact and subsequent compliance with the EPA, the regulation and this Approval can be verified.
6. Condition No. 26 is included to require the Company to retain records and provide information to the Ministry so that compliance with the EPA, the regulation and this Approval can be verified.
7. Conditions No. 27 and 28, inclusive, are 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.

# APPEAL PROVISIONS

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In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal, within 15 days after the service of this notice, require a hearing by the Tribunal. You must also provide notice to, the Minister of the Environment, Conservation and Parks in accordance with Section 47 of the *Environmental Bill of Rights, 1993* who 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:

- I. 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;
- II. 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:

- I. The name of the appellant;
- II. The address of the appellant;
- III. The environmental compliance approval number;
- IV. The date of the environmental compliance approval;
- V. The name of the Director, and;
- VI. 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 <a href="mailto:OLT.Registrar@ontario.ca">OLT.Registrar@ontario.ca</a>	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 <i>Environmental Protection Act</i> Ministry of the Environment, Conservation and Parks 135 St. Clair Avenue West, 1st Floor Toronto, Ontario M4V 1P5
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**\* 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 [ero.ontario.ca](http://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



Nancy Orpana

Director

appointed for the purposes of Part II.1 of the Environmental Protection Act

c: Erica Carabott

Buddy Ledger, Ramboll Canada Inc.

Taylor Roumeliotis, Ramboll Canada Inc.

The following schedules are a part of this environmental compliance approval:

# SCHEDULE 1

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## Procedures for the Calculation of 10-minute Average Concentration of Odour

### CALCULATE ONE-HOUR AVERAGE CONCENTRATION

1. The one-hour average concentration of odour at the most impacted Sensitive Receptor shall be calculated using the Detailed Procedure described as follows:

#### Detailed Procedure

- a. Calculate one-hour average concentration of odour at the most impacted Sensitive Receptor at which the highest concentration occurs in employing AERMOD atmospheric dispersion models or another atmospheric dispersion model acceptable to the Director that employs at least five (5) years of hourly local meteorological data and that can provide results reported as individual one-hour average odour concentrations;
- b. Convert each one-hour average concentrations predicted over the five (5) years of hourly local meteorological data to a 10-minute average concentration using the One-hour Average to 10-Minute Average Conversion described below; and
- c. Present the 10-minute average concentrations predicted to occur over a five (5) year period at the Point of Impingement and at the most impacted Sensitive Receptor. The results shall be presented in tabular form. The table shall identify all predicted 10-minute average odour concentration occurrences in terms of frequency, identifying the number of occurrences over the entire range of predicted odour concentration in increments of not more than 1/10 of one odour unit. The table shall also present the cumulative frequency of occurrence and identify the modeled hour(s) (year, month, day, hour) of all predicted occurrences having the predicted 10-minute average odour concentration higher than 0.9 odour unit. The maximum 10-minute average concentration of odour at the Sensitive Receptor will be considered to be the maximum odour concentration at the most impacted Sensitive Receptor that occurs and is represented in the table, disregarding outlying data points as agreed by the District Manager and Director.

### ONE-HOUR AVERAGE TO 10-MINUTE AVERAGE CONVERSION

2. Use the following formula to convert one-hour average concentration predicted by an atmospheric dispersion model to a 10-minute average concentration:

$$X_S = X_T(t_T/t_S)^p$$

where

$X_S$  = 10-minute average concentration

$X_T$  = one-hour average concentration

$t_T$  = 60

$t_S$  = 10

$p$  = exponent, as follows:

Atmospheric Stability	Exponent
A - convective	0.5
B	0.5
C	0.33
D - neutral	0.2
E	0.167
F - very stable	0.167



## SCHEDULE 2

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**PARAMETER:**

Temperature

**LOCATION:**

The sample point for the temperature monitoring system shall be located at a location where measurements are representative of the maximum combined temperature of blood dryers cyclones effluent and the temperature of non-condensable gases, in their respective discharge ducts before the common manifold leading to the primary scrubber.

The temperature monitoring system shall meet the following minimum performance specifications for the following parameters.

	<b>PARAMETERS</b>	<b>SPECIFICATION</b>
<b>PERFORMANCE:</b>	Type:	shielded "K" type thermocouple, or equivalent
	Accuracy:	±1.5 percent of the minimum gas temperature