

**Content Copy Of Original** 

Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

#### AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 0923-C7HLEU Issue Date: March 11, 2022

Safety-Kleen Canada Inc. 300 Woolwich St South Woolwich, Ontario N0B 1M0

#### Site Location: 300 Woolwich Street South

Lot Part of Lots 115 and 116, Concession German Company Tract Woolwich Township, Regional Municipality of Waterloo N0B 1M0

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**

An oil re-refining facility, consisting of the following processes and support units:

- dehydration;
- fuel stripping;
- vacuum distillation;
- hydrotreating;
- blending;
- storage, transfer and loading;
- · testing and laboratory operations;
- wastewater treatment;

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit of up to **245 million litres of used oil per year** discharging to the air as described in the Original ESDM Report.

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

1. "ACB list" means the document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time and published by the Ministry and available on a Government website;

- 2. "Acceptable Point of Impingement Concentration" means a concentration accepted by the Ministry as not likely to cause an adverse effect for a Compound of Concern that,
  - a. is not identified in the ACB list, or
  - b. is identified in the ACB list as belonging to the category "Benchmark 2" and has a concentration at a Point of Impingement that exceeds the concentration set out for the contaminant in that document.
    With respect to the Original ESDM Report, the Acceptable Point of Impingement Concentration for a Compound of Concern mentioned above is the concentration set out in the Original ESDM Report;
- 3. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility;
- 4. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 and Appendix A of the Basic Comprehensive User Guide, by Wood Environment & Infrastructure Solutions and dated February 2, 2022 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility, as updated in accordance with Condition 10 of this Approval;
- 5. "Acoustic Assessment Summary Table" means a table prepared in accordance with the Basic Comprehensive User Guide summarising the results of the Acoustic Assessment Report, as updated in accordance with Condition 10 of this Approval;
- 6. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Facility, assessed to determine compliance with the performance limits for the Facility regarding noise emissions, completed in accordance with the procedures set in Publication NPC-103 and reported in accordance with Publication NPC-233;
- 7. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit, prepared in accordance with Publication NPC-233;
- 8. "Approval" means this entire Environmental Compliance Approval and any Schedules to it;
- 9. "Basic Comprehensive User Guide" means the Ministry document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;

- 10. "CEM System" means the continuous emission monitoring system consisting of continuous monitors and recording devices;
- 11. "Company" means **Safety-Kleen 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;
- 12. "Compound of Concern" means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged from the Facility in an amount that is not negligible;
- "Description Section" means the section on page one of this Approval describing the Company's operations and the Equipment located at the Facility and specifying the Facility Production Limit for the Facility;
- 14. "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;
- 15. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
- 16. "DRE" means destruction and removal efficiency and can be described as a measure of the difference between the mass air emissions of a compound from the thermal oxidizer and the mass of that compound introduced into it;
- 17. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
- 18. "Environmental Assessment Act" means the *Environmental Assessment Act,* R.S.O. 1990, c.E.18;
- 19. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
- 20. "Equipment" means equipment or processes described in the ESDM Report, this Approval and in the Schedules referred to herein and any other equipment or processes;
- 21. "Equipment with Specific Operational Limits" means **the equipment described in Schedule B** and any Equipment related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other Equipment that is specifically referenced in any published Ministry document that outlines specific operational guidance that must be considered by the Director in issuing an Approval;
- 22. "ESDM Report" means the most current Emission Summary and Dispersion Modelling Report that describes the Facility. The ESDM Report is based on the Original ESDM Report and is updated after the issuance of this Approval in accordance with section 26 of O. Reg. 419/05 and the Procedure Document;
- 23. "Exhausted" means the capacity of the activated carbon to adsorb contaminant emissions is reached, and the activated carbon filter unit is no longer able to

effectively reduce emissions;

- 24. "Facility" means the entire operation located on the property where the Equipment is located;
- 25. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;
- 26. "Furnaces" means the furnaces and heaters fired by Re-refinery Fuel Oil as described in Schedule A of the ESDM Report;
- 27. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report or the design/implementation of Noise Control Measures for the Facility and/or Equipment. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment or the design/implementation of Noise Control Measures for the Gesign/implementation of Noise Control Measures for the Gesign/implementation of Noise Control Measures for the Gesign/implementation of Noise Control Measures for the Facility and/or Equipment;
- 28. "Log" means a document that contains a record of each change that is required to be made to the ESDM Report and Acoustic Assessment Report, including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a Point of Impingement and all changes to information associated with a Modification to the Facility that satisfies Condition 2;
- 29. "Manager" means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this Approval;
- 30. "Minister" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the EPA under the Executive Council Act;
- 31. "Ministry" means the ministry of the Minister;
- 32. "Modification" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the Facility that may discharge or alter the rate or manner of discharge of a Compound of Concern to the air or discharge or alter noise or vibration emissions from the Facility;
- 33. "Noise Abatement Action Plan" means the noise abatement program developed by the Company, submitted to the Director and District Manager and approved by the Director, designed to achieve compliance with the sound level limits set in

Ministry Publication NPC-300. It also means the Noise Abatement Action Plan from the Acoustic Assessment Report dated February 2, 2022, prepared by Shivraj Sagar and Buddy Ledger of Wood Environment & Infrastructure Solutions;

- 34. "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, described in the Company's application, Schedule G of this Approval and in the supporting documentation referred to herein, including the Acoustic Assessment Report, to the extent approved by this Approval;
- 35. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution Local Air Quality, made under the EPA;
- 36. "Odour Control Manual" means Chapter 33 of the document titled "Operating Manual Breslau Facility", dated January 25, 2021 and prepared by the Company, as amended periodically;
- 37. "Original ESDM Report" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document by Alex Breido, Wood and dated January 29, 2021 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
- 38. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
- 39. "Point of Reception" means Point of Reception as defined by Publication NPC-300;
- 40. "Pre-Test Plan" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;
- 41. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
- 42. "Processes with Significant Environmental Aspects" means the Equipment which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of O. Reg. 419/05 and the Procedure Document;
- 43. "Publication NPC-103" means the Ministry Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the Ministry as amended;
- 44. "Publication NPC-207" means the Ministry draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the Ministry, August

1978, as amended;

- 45. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
- 46. "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;
- 47. "Report EPS 1/PG/7" means the document titled "Protocols and Performance Specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation - Report EPS 1/PG/7" published by Environment Canada in December 2005, as amended;
- 48. "Re-refinery Fuel Oil" means lower boiling organic fractions which are condensed and stored from either the vacuum distillation unit or the hydrotreater unit at the Facility;
- 49. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
  - Schedule A Supporting Documentation
  - Schedule B Equipment with Specific Operational Limits
  - Schedule C Test Contaminants
  - Schedule D Source Testing Requirements
  - Schedule E Procedure to calculate and record the 10-minute average concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor
  - Schedule F CEM System Requirements
  - Schedule G Noise Abatement Action Plan;
- 50. "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from odour discharges from the Facility, including one or a combination of:
  - a. private residences or public facilities where people sleep (eg: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.);
  - b. institutional facilities (eg: schools, churches, community centres, day care centres, recreational centres, etc.);
  - c. outdoor public recreational areas (eg: trailer parks, play grounds, picnic areas, etc.); and

- d. commercial areas where there are continuous public activities (eg: commercial plazas and office buildings);
- 51. "Shut-down" means an operating condition during which the operation of a source of contaminant is decreased from normal operating conditions to an inoperative state;
- 52. "Source Testing" means sampling and testing to measure emissions resulting from operating the Facility under conditions which yield the worst case emissions within the approved operating range of the Facility;
- 53. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;
- 54. "Start-up" means an operating condition during which the operation of a source of contaminant is increased from an inoperative state to normal operating conditions;
- 55. "Test Contaminants" means the contaminants listed in Schedule C;
- 56. "Toxicologist" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants; and
- 57. "Written Summary Form" means the electronic questionnaire form, available on the Ministry website, and supporting documentation, that documents the activities undertaken at the Facility in the previous calendar year.

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. GENERAL

- 1. Except as otherwise provided by this Approval, the Facility shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this Approval and in accordance with the following Schedules attached hereto:
  - Schedule A Supporting Documentation
  - · Schedule B Equipment with Specific Operational Limits
  - Schedule C Test Contaminants
  - Schedule D Source Testing Requirements
  - Schedule E Procedure to calculate and record the 10-minute average

concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor

- Schedule F CEM System Requirements
- Schedule G Noise Abatement Action Plan

# 2. LIMITED OPERATIONAL FLEXIBILITY

- 1. Pursuant to section 20.6 (1) of the EPA and subject to Conditions 2.2 and 2.3 of this Approval, future construction, alterations, extensions or replacements are approved in this Approval if the future construction, alterations, extensions or replacements are Modifications to the Facility that:
  - a. are within the scope of the operations of the Facility as described in the Description Section of this Approval;
  - b. do not result in an increase of the Facility Production Limit above the level specified in the Description Section of this Approval; and
  - c. result in compliance with the performance limits as specified in Condition 4.
- 2. Condition 2.1 does not apply to,
  - a. the addition of any new Equipment with Specific Operational Limits or to the Modification of any existing Equipment with Specific Operational Limits, excluding the removal of Furnaces, at the Facility; or
  - b. Modifications to the Facility that would be subject to the Environmental Assessment Act.
- 3. Condition 2.1 of this Approval shall expire ten (10) years from the date of this Approval, unless this Approval is revoked prior to the expiry date. The Company may apply for renewal of Condition 2.1 of this Approval by including an ESDM Report and an Acoustic Assessment Report that describes the Facility as of the date of the renewal application.

# 3. REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION

- 1. Prior to making a Modification to the Facility that satisfies Condition 2.1.a. and 2.1.b., the Company shall prepare a proposed update to the ESDM Report to reflect the proposed Modification.
- 2. The Company shall request approval of an Acceptable Point of Impingement Concentration for a Compound of Concern if the Compound of Concern is not identified in the ACB list as belonging to the category "Benchmark 1" and a proposed update to an ESDM Report indicates that one of the following changes with respect to the concentration of the Compound of Concern may

occur:

- a. The Compound of Concern was not a Compound of Concern in the previous version of the ESDM Report and
  - i. the concentration of the Compound of Concern exceeds the concentration set out for the contaminant in the ACB list; or
  - ii. the Compound of Concern is not identified in the ACB list; or
- b. The concentration of the Compound of Concern in the updated ESDM Report exceeds the higher of,
  - i. the most recent Acceptable Point of Impingement Concentration, and
  - ii. the concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
- 3. The request required by Condition 3.2 shall propose a concentration for the Compound of Concern and shall contain an assessment, performed by a Toxicologist, of the likelihood of the proposed concentration causing an adverse effect at Points of Impingement.
- 4. If the request required by Condition 3.2 is a result of a proposed Modification described in Condition 3.1, the Company shall submit the request, in writing, to the Director at least 30 days prior to commencing to make the Modification. The Director shall provide written confirmation of receipt of this request to the Company.
- 5. If a request is required to be made under Condition 3.2 in respect of a proposed Modification described in Condition 3.1, the Company shall not make the Modification mentioned in Condition 3.1 unless the request is approved in writing by the Director.
- 6. If the Director notifies the Company in writing that the Director does not approve the request, the Company shall,
  - a. revise and resubmit the request; or
  - b. notify the Director that it will not be making the Modification.
- 7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
- 8. If the Director approves the request, the Company shall update the ESDM Report to reflect the Modification.
- 9. Condition 3 does not apply if Condition 2.1 has expired.

# 4. PERFORMANCE LIMITS

- 1. Subject to Condition 4.2, the Company shall not discharge or cause or permit the discharge of a Compound of Concern into the air if,
  - a. the Compound of Concern is identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the Benchmark 1 concentration; or
  - b. the Compound of Concern is not identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the higher of,
    - i. if an Acceptable Point of Impingement Concentration exists, the most recent Acceptable Point of Impingement Concentration, and
    - ii. the concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
- 2. Condition 4.1 does not apply if the benchmark set out in the ACB list has a 10-minute averaging period and no ambient monitor indicates an exceedance at a Point of Impingement where human activities regularly occur at a time when those activities regularly occur.
- 3. The Company shall ensure, subsequent to the completion of the Noise Abatement Action Plan, that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.
- 4. The Company shall, at all times, ensure that the vibration emissions from the Facility comply with the limits set out in Ministry Publication NPC-207.
- 5. The Company shall operate any Equipment with Specific Operational Limits approved by this Approval in accordance with the Original ESDM Report and Conditions in this Approval.

# 5. **ODOUR**

- 1. The Company shall immediately implement the Odour Control Manual to prevent or mitigate odour emissions from the operation of the Facility.
- 2. The Odour Control Manual shall be updated as necessary or at the direction of the District Manager. The Company shall submit the updated Odour Control Manual to the District Manager and implement the updated Odour Control Manual following written approval by the District Manager.

# 6. RE-REFINERY FUEL OIL

1. The Company may use Re-Refinery Fuel Oil in the Dehydration Thermal Oxidizer H-202, Furnaces, and boilers SB-801, SB-802 and SB-803 when Conditions 6.2 and 6.3 are met.

- 2. The Company shall ensure that the quality of the Re-Refinery Fuel Oil entering the combustion equipment referred to in Condition 6.1 shall have a heating value of more than 18,608 kJ/kg (8000 BTU/lb) and an ash content of less than 7%.
- 3. The Company shall ensure that the Re-Refinery Fuel Oil fed to the combustion equipment referred to in Condition 6.1 shall be sampled weekly and weekly samples shall be combined into a composite quarterly sample. The samples shall be analysed for heating value, ash content, PCBs and total halogens.

# 7. EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS

- The Company shall ensure that the Dehydration Thermal Oxidizer H-202 is designed, constructed and operated so as to ensure that a combustion gas temperature of not less than 1,000 degrees Celsius at a residence time of not less than 2 seconds and an oxygen content in the flue gases of not less than 6 percent based on dry volume is maintained.
- 2. The Company shall ensure that the Furnaces are designed, constructed and operated so as to ensure that a combustion gas temperature of not less than 550 degrees Celsius at a residence time of not less than 1 second and an oxygen content in the flue gases of not less than 2.5 percent based on dry volume is maintained.
- 3. The Company shall operate the Dehydration Thermal Oxidizer H-202 and Furnaces, when in operation and burning Re-Refinery Fuel Oil, to comply with the following stack emission limits:
  - a. the concentration of organic matter in the stack gas, expressed as equivalent methane, being an average of ten measurements taken at approximately one minute intervals, shall not exceed 50 parts per million by volume, on an undiluted basis;
  - b. the half-hour average concentration of carbon monoxide in the undiluted stack gas, as recorded by the CEM System, shall not exceed 50 parts per million by volume, on a dry basis;
- 4. Conditions 7.1, 7.2 and 7.3 do not apply during the first five (5) days of optimization or Start-up and Shut-down periods of the Dehydration Thermal Oxidizer H-202 and Furnaces if:
  - a. the Shut-down does not last for more than 6 hours;
  - b. the Start-up does not last for more than 24 hours;
  - c. the Start-up or Shut-down is conducted according to a written plan that minimizes discharges into the air during the period of start-up or shut-

down.

5. The Dehydration Thermal Oxidizer H-202 shall be designed, constructed and operated at all times, so that DRE shall be 99.99% for organic species.

# 8. SOURCE TESTING

- 1. The Company shall perform annual Source Testing in accordance with the procedure outlined in Schedule D, to determine the rate of emission of the Test Contaminants from the Dehydration Thermal Oxidizer H-202, Furnaces and boiler SB-801. The first Source Testing program shall be conducted within one (1) year of the date of the Approval.
- 2. The Company shall perform annual Source Testing in accordance with the procedure outlined in Schedule D, to determine the rate of emission of Total Reduced Sulphur and odour from the Bioscrubber BS-1. The first Source Testing program shall be conducted within one (1) year of the date of the Approval.

# 9. CONTINUOUS MONITORING

- The Company shall continuously monitor and record the temperature in the combustion chamber of the Dehydration Thermal Oxidizer H-202 and Furnaces, when they are in operation and are burning Re-Refinery Fuel Oil. The temperature monitor and recorder shall comply with the requirements outlined in Schedule F.
- 2. The Company shall continuously monitor and record the concentrations of carbon monoxide and oxygen in the undiluted exhaust gases of the Dehydration Thermal Oxidizer H-202 and Furnaces, when they are in operation and are burning Re-Refinery Fuel Oil. The monitors and recorders shall comply with the requirements outlined in Schedule F.
- 3. The Company shall install flow meters to continuously monitor and record the flowrates of Re-Refinery Fuel Oil to the Dehydration Thermal Oxidizer H-202, and the Furnaces.

# 10. DOCUMENTATION REQUIREMENTS

- 1. The Company shall maintain an up-to-date Log.
- 2. No later than March 31 in each year, the Company shall update the Acoustic Assessment Report and shall update the ESDM Report in accordance with section 26 of O. Reg. 419/05 so that the information in the reports is accurate as of December 31 in the previous year.
- 3. The Company shall make the Emission Summary Table (see section 27 of O. Reg. 419/05) and Acoustic Assessment Summary Table available for examination by any person, without charge, by posting it on the Internet or by

making it available during regular business hours at the Facility.

- 4. The Company shall, within three (3) months after the expiry of Condition 2.1 of this Approval, update the ESDM Report and the Acoustic Assessment Report such that the information in the reports is accurate as of the date that Condition 2.1 of this Approval expired.
- 5. Conditions 10.1 and 10.2 do not apply if Condition 2.1 has expired.

# 11. REPORTING REQUIREMENTS

- 1. Subject to Condition 11.2, the Company shall provide the Director no later than June 30 of each year, a Written Summary Form to be submitted through the Ministry's website that shall include the following:
  - a. a declaration of whether the Facility was in compliance with section 9 of the EPA, O. Reg. 419/05 and the conditions of this Approval;
  - b. a summary of each Modification satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a Point of Impingement for any Compound of Concern or resulted in a change in the sound levels reported in the Acoustic Assessment Summary Table at any Point of Reception;
  - c. an updated list of Furnaces.
- 2. Condition 11.1 does not apply if Condition 2.1 has expired.

# 12. OPERATION AND MAINTENANCE

- The Company shall prepare and implement, not later than three (3) months from the date of this Approval, operating procedures and maintenance programs for all Processes with Significant Environmental Aspects, which shall specify as a minimum:
  - a. frequency of inspections and scheduled preventative maintenance;
  - b. the calibration procedures of the CEM System;
  - c. procedures to prevent upset conditions;
  - d. procedures to monitor breakthrough and determine the frequency of replacement of the activated carbon in the activated carbon filters in the Facility;
  - e. procedures to minimize all fugitive emissions;
  - f. procedures to prevent and/or minimize odorous emissions;
  - g. procedures to prevent and/or minimize noise emissions; and
  - h. procedures for record keeping activities relating to the operation and

maintenance programs.

- 2. The Company shall ensure that all Processes with Significant Environmental Aspects are operated and maintained in accordance with this Approval, the operating procedures and maintenance programs.
- 3. The Company shall ensure that the activated carbon in all the activated carbon filters at the Facility is replaced before it is Exhausted.

### 13. COMPLAINTS RECORDING AND REPORTING

- 1. If at any time, the Company receives an environmental complaint from the public regarding the operation of the Equipment approved by this Approval, the Company shall take the following steps:
  - a. Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
  - b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the District Manager.
  - c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
  - d. Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

#### 14. ANNUAL REPORT

- The Company shall provide the District Manager no later than June 30 of each year a report covering activities which have taken place at the Facility during the previous calendar year. Each report shall include as a minimum a summary of the following information:
  - a. a summary of all environmental complaints and actions taken in response to these complaints;
  - b. a summary of the analytical data on Re-Refinery Fuel Oil;
  - c. a summary of the data produced by the CEM System;
  - d. a summary of compliance with the requirements of Condition 7 of this

Approval;

- e. a summary of the results of the Source Testing; and
- f. a descriptive summary of the steps taken to minimize fugitive emissions.

# 15. RECORD KEEPING REQUIREMENTS

- 1. Any information requested by any employee in or agent of the Ministry concerning the Facility and its operation under this Approval, including, but not limited to, any records required to be kept by this Approval, shall be provided to the employee in or agent of the Ministry, upon request, in a timely manner.
- 2. Unless otherwise specified in this Approval, the Company shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this Approval, including,
  - a. a copy of the Original ESDM Report and each updated version;
  - b. a copy of each version of the Acoustic Assessment Report;
  - c. supporting information used in the emission rate calculations performed in the ESDM Reports and Acoustic Assessment Reports;
  - d. the records in the Log;
  - e. copies of each Written Summary Form provided to the Ministry under Condition 11.1 of this Approval;
  - f. records of maintenance, repair and inspection of Equipment related to all Processes with Significant Environmental Aspects;
  - g. all records produced by the Source Testing;
  - h. all records produced by the CEM System;
  - i. all records related to environmental complaints made by the public as required by Condition 13 of this Approval; and
  - j. copies of each report provided to the District Manager under Condition 14 of this Approval.

# 16. NOTIFICATION

- The Company shall notify the District Manager, in writing not later than three (3) months after the decommissioning of a Furnace, of the date of decommissioning.
- 2. The Company shall notify the District Manager, in writing at least twenty-four (24) hours prior to any planned maintenance shutdowns at the Facility.

# 17. REVOCATION OF PREVIOUS APPROVALS

 This Approval replaces and revokes all Certificates of Approval (Air) issued under section 9 EPA and Environmental Compliance Approvals issued under Part II.1 EPA to the Facility in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.

# 18. NOISE ABATEMENT ACTION PLAN

- 1. The Company shall:
  - a. fully implement the Noise Abatement Action Plan specified in the Acoustic Assessment Report and described in Schedule G of this Approval;
  - b. ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

# 19. ACOUSTIC AUDIT

- 1. The Company shall carry out acoustic audit measurements on the actual noise emissions due to the operation of the Facility. The Company:
  - a. shall carry out acoustic audit measurements in accordance with the procedures in Publication NPC-103;
  - b. shall submit an Acoustic Audit Report on the results of the Acoustic Audit, prepared by an Independent Acoustical Consultant, in accordance with the requirements of Publication NPC-233, to the District Manager and the Director not later than six (6) months after the full implementation of the Noise Abatement Action Plan.
- 2. The Director:
  - a. may not accept the results of the Acoustic Audit if the requirements of Publication NPC-233 were not followed;
  - b. may require the Company to repeat the Acoustic Audit if the results of the Acoustic Audit are found unacceptable to the Director.

# SCHEDULE A

# **Supporting Documentation**

- 1. Environmental Compliance Approval Application, dated February 3, 2021, signed by Frank Wagner, Vice President Environmental Compliance and submitted by the Company;
- 2. Emission Summary and Dispersion Modelling Report, prepared by Alex Breido / Wood and dated January 29, 2021;

- 3. Acoustic Assessment Report, prepared by Shivraj Sagar and Buddy Ledger of Wood Environment & Infrastructure Solutions and dated February 2, 2022; and
- 4. Additional information provided by Alex Breido / Wood in an email dated September 30, 2021.

# SCHEDULE B

# **Equipment with Specific Operational Limits**

- Furnaces;
- one (1) recuperative type thermal oxidizer, identified as Dehydration Thermal Oxidizer H-202, equipped with one (1) temperature monitoring and recording system, one (1) carbon monoxide monitor, one (1) oxygen monitor, and two (2) oilfired burners each having a maximum heat input of 14,770,000 kilojoules per hour and firing on Re-Refinery Fuel Oil, for incineration of exhaust gases from the Dehydration System, Vacuum Distillation Units, Air Flotation Unit and Hydrotreater Kerosene Stripper, discharging into the atmosphere through a stack which having an exit diameter of 1.22 metres at a maximum volumetric flow rate of 45.1 actual cubic metres per second at an approximate temperature of 460 degrees Celsius, and extending 45.7 metres above grade;
- one (1) natural gas fired Hot Oil Heater identified as H-302, having a maximum heat input capacity of 18,500,000 kilojoules per hour, used to provide heat to the two (2) thin film evaporators in the Distillation Process, discharging into the atmosphere at a maximum volumetric flow rate of 0.97 actual cubic metre per second at an approximate temperature of 463 degrees Celsius, through a stack, having an exit diameter of 0.71 metre and extending 18.3 metres above grade;
- one (1) steam boiler identified as SB-801, having a maximum heat input capacity of 17,680,000 kilojoules per hour, firing on Re-Refinery Fuel Oil or on natural gas, discharging into the atmosphere at a maximum volumetric flow rate of 4.6 actual cubic metres per second at an approximate temperature of 271 degrees Celsius, through a stack, having an exit diameter of 0.61 metre and extending 30.5 metres above grade;
- one (1) steam boiler identified as SB-802, having a maximum heat input capacity of 13,450,000 kilojoules per hour, firing on Re-Refinery Fuel Oil or on natural gas, discharging into the atmosphere at a maximum volumetric flow rate of 3.5 actual cubic metres per second at an approximate temperature of 271 degrees Celsius, through a stack, having an exit diameter of 0.50 metre and extending 30.5 metres above grade;
- one (1) steam boiler identified as SB-803, having a maximum heat input capacity of 15,560,000 kilojoules per hour, firing on Re-Refinery Fuel Oil or on natural gas,

discharging into the atmosphere at a maximum volumetric flow rate of 4.1 actual cubic metres per second at an approximate temperature of 271 degrees Celsius, through a stack, having an exit diameter of 0.50 metre and extending 30.5 metres above grade; and

 one (1) custom built packed tower Bioscrubber identified as BS-1 for the control of air emissions from two (2) existing biological tanks, having an internal diameter of 1.2 metres and a height of 7.0 metres, complete with one (1) 0.1-metre PVC demister mesh screen and one (1) 4.6-metre packed bed containing randomly packed Pall Rings, and a recirculating pump delivering 6.3 litres of 1 percent sodium hypochlorite solution per second, exhausting into the atmosphere at a maximum volumetric flow rate of 0.93 actual cubic metre per second through a stack, having an exit diameter of 0.58 metre and extending 10 metres above grade;

# SCHEDULE C

# **Test Contaminants**

Odour

Hydrogen Chloride Total Reduced Sulphur Sulphur Dioxide Oxides of Nitrogen Total Hydrocarbons

# SCHEDULE D

#### **Source Testing Procedure**

- 1. The Company shall submit, not later than three (3) months prior to the Source Testing, to the Manager a Pre-Test Plan for the Source Testing required under this Approval.
- 2. The Pre-Test Plan shall include a protocol for analysis of Re-Refinery Fuel Oil fired in the furnaces and boilers shortly prior to and/or during Source Testing.
- 3. The Company shall finalize the Pre-Test Plan in consultation with the Manager.
- 4. The Company shall not commence the Source Testing until the Manager has accepted the Pre-Test Plan.
- 5. The Company shall complete the first Source Testing within one (1) year of the date of the Approval and the Company shall complete subsequent Source Testing

every one (1) calendar year thereafter.

- 6. The Company shall notify the Manager, the District Manager and the Director in writing of the location, date and time of any impending Source Testing required by this Approval, at least fifteen (15) days prior to the Source Testing.
- 7. The Company shall submit a report (electronic format) on the Source Testing to the Manager, the District Manager and the Director not later than three (3) months after completing the Source Testing. The report shall be in the format described in the Source Testing Code, and shall also include, but not be limited to:
  - a. an executive summary;
  - b. an identification of the applicable North American Industry Classification System code (NAICS) for the Facility;
  - c. all records of the operating conditions at the time of Source Testing including the results of the Re-Refinery Fuel Oil analysis;
  - d. all records produced by the CEM System;
  - e. results of Source Testing, including the emission rate, emission concentration, and relevant emission factor of the Test Contaminants;
  - f. a tabular comparison of Source Testing results for the Test Contaminants to original emission estimates described in the Company's application and the ESDM Report. and
  - g. the results of dispersion calculations using the maximum emission rates for odour for the Equipment, indicating the maximum 10-minute average concentration of the odour, calculated in accordance with the procedures outlined in Schedule E, at the most impacted Sensitive Receptor and the yearly frequency of exceedance of 1 odour unit at the most impacted Sensitive Receptor.
- 8. The Director may not accept the results of the Source Testing if:
  - a. the Source Testing Code or the requirements of the Manager were not followed; or
  - b. the Company did not notify the Manager, the District Manager and Director of the Source Testing; or
  - c. the Company failed to provide a complete report on the Source Testing.
- 9. If the Director does not accept the results of the Source Testing, the Director may require re-testing. If re-testing is required, the Pre-Test Plan strategies need to be revised and submitted to the Manager for approval. The actions taken to minimize the possibility of the Source Testing results not being accepted by the Director must be noted in the revision.

10. The Company shall update their ESDM Report in accordance with Section 26 of O. Reg. 419/05 and the Procedure Document with the results from the Source Testing if any of the calculated emission rates are higher than the predicted rates in the ESDM Report, not later than three (3) months after the submission of the Source Testing report and make these records available for review by staff of the Ministry upon request.

# SCHEDULE E

# Procedure to calculate and record the 10-minute average concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor

1. Calculate and record one-hour average concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor, employing the AERMOD atmospheric dispersion model or any other 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;

2. Convert and record each of the one-hour average concentrations predicted over the five (5) years of hourly local meteorological data at the Point of Impingement and at the most impacted Sensitive Receptor to 10-minute average concentrations using the one-hour average to 10-minute average conversion described below; and

3. Record and 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 in a histogram. The histogram 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 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 histogram, disregarding outlying data points on the histogram as agreed to by the Director.

# **One-hour Average to 10-minute Average Conversion**

4. Use the following formula to convert and record one-hour average concentrations at the Point of Impingement and at the most impacted Sensitive Receptor to 10-minute average concentrations:

where:

X 10min = 10-minute average concentration X 60min = one-hour average concentration

# SCHEDULE F

#### **CEM System Requirements**

#### PARAMETER: TEMPERATURE

#### LOCATION:

The continuous temperature monitors shall be located at a location where the measurements are representative of the actual operating temperatures.

#### **PERFORMANCE:**

The continuous temperature monitor shall meet the following minimum performance specifications for the following parameters:

	PARAMETERS SPECIFICATION	
1.	Туре:	shielded "K" type thermocouple, or equivalent
2.	Accuracy:	± 5 degrees Celsius

#### DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor without a significant loss of accuracy and with a time resolution of 1 minute or better.

#### **RELIABILITY:**

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

#### PARAMETER: OXYGEN

#### **INSTALLATION:**

The continuous oxygen monitor shall be installed at an accessible location where the measurements are representative of the actual concentrations of oxygen in the undiluted gases leaving the furnaces and shall meet the following installation specifications:

	PARAMETERS	SPECIFICATION
1	Range (percentage):	0 - 20 or 0 - 25
2	Calibration Gas Ports:	close to the sample point

#### **PERFORMANCE:**

The continuous oxygen monitor shall meet the following minimum performance specifications for the following parameters:

	PARAMETERS	SPECIFICATION
1	Span Value (percentage):	80 to 100 percent of full scale
2	Relative Accuracy:	the greater of ≤ 10 percent of the mean value of the reference method test data or 0.5 percent O2 average absolute difference
3	Calibration Drift/Error (24- Hour):	0.5 percent O2
4	System Bias:	≤ 4 percent of the mean value of the reference method test data
5	Procedure for Zero and Span Calibration check:	all system components checked
6	Zero Calibration Drift (24-hour):	≤ 0.5 percent O2
7	Span Calibration Drift (24-hour):	≤ 0.5 percent O2
8	Response Time (90 percent response to a step change):	≤ 200 seconds
9	Operational Test Period:	≥ 168 hours without corrective maintenance
C A I		

#### **CALIBRATION:**

Daily calibration drift checks on the monitor shall be performed and recorded in accordance with the requirements of Report EPS 1/PG/7.

# DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 2 minutes or better.

#### **RELIABILITY:**

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time for each calendar quarter during the first full year of operation, and 95 percent, thereafter.

# PARAMETER: CARBON MONOXIDE

#### **INSTALLATION:**

The continuous carbon monoxide monitor shall be installed at an accessible location where the measurements are representative of the actual concentration of carbon monoxide in the undiluted gases leaving the furnaces and shall meet the following installation specifications:

	PARAMETERS	SPECIFICATION		
1	Range (ppmv):	0 to 200		
2	Calibration Gas Ports:	close to the sample point		

#### **PERFORMANCE:**

The continuous carbon monoxide monitor shall meet the following minimum performance specifications for the following parameters:

	PARAMETERS	SPECIFICATION
1	Span Value (nearest ppm equivalent):	80 to 100 percent of full scale
2	Relative Accuracy:	the greater of $\leq$ 10 percent of the mean value of the reference method test data or 5 ppm average absolute difference
3	Calibration Drift/Error (24- Hour):	≤ 2 percent of the actual concentration
4	System Bias:	≤ 4 percent of the mean value of the reference method test data
5	Procedure for Zero and Span Calibration Check:	all system components checked
6	Zero Calibration Drift (24-hour):	the greater of $\leq$ 5 percent of full scale value
7	Span Calibration Drift (24-hour):	the greater of $\leq$ 5 percent of full scale value
	Response Time (90 percent response to a step change):	≤ 200 seconds
9	Operational Test Period:	≥ 168 hours without corrective maintenance

#### CALIBRATION:

Daily calibration drift checks on the monitor shall be performed and recorded in accordance with the requirements of Report EPS 1/PG/7.

# DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 2 minutes or better.

# **RELIABILITY:**

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 90 percent of the time for each calendar quarter during the first full year

of operation, and 95 percent, thereafter.

# SCHEDULE G

### **Noise Abatement Action Plan**

The Noise Abatement Action Plan shall consist of the Noise Control Measures identified as Phase 3, Phase 4, and Phase 5. The Noise Abatement Action Plan shall be implemented according to the following schedule:

12 months after the date of issuance of the Approval – complete Phase 3 Noise Control Measures;

24 months after the date of issuance of the Approval – complete Phase 4 Noise Control Measures;

36 months after the date of issuance of the Approval – complete Phase 5 Noise Control Measures, representing completion of the Noise Abatement Action Plan.

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

#### 1. GENERAL

Condition No. 1 is included to require the Approval holder to build, operate and maintain the Facility in accordance with the Supporting Documentation in Schedule A considered by the Director in issuing this Approval.

# 2. LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS

Conditions No. 2, 3 and 4 are included to limit and define the Modifications permitted by this Approval, and to set out the circumstances in which the Company shall request approval of an Acceptable Point of Impingement Concentration prior to making Modifications. The holder of the Approval is approved for operational flexibility for the Facility that is consistent with the description of the operations included with the application up to the Facility Production Limit. In return for the operational flexibility, the Approval places performance based limits that cannot be exceeded under the terms of this Approval. Approval holders will still have to obtain other relevant approvals required to operate the Facility, including requirements under other environmental legislation such as the Environmental Assessment Act.

# 3. ODOUR, RE-REFINERY FUEL OIL AND EQUIPMENT WITH SPECIFIC OPERATIONAL LIMITS

Conditions No. 5, 6 and 7 is included to provide minimum performance requirements considered necessary to prevent an adverse effect resulting from the

operation of the Facility.

# 4. SOURCE TESTING AND CONTINUOUS MONITORING

Conditions No. 8 and 9 are included to require the Company to gather accurate information so that compliance with the operating requirements of this Approval can be verified.

# 5. DOCUMENTATION REQUIREMENTS

Condition No. 10 is included to require the Company to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this Approval and allows the Ministry to monitor on-going compliance with these performance limits. The Company is required to have an up to date ESDM Report and Acoustic Assessment Report that describe the Facility at all times and make the Emission Summary Table and Acoustic Assessment Summary Table from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the Facility.

# 6. REPORTING REQUIREMENTS

Condition No. 11 is included to require the Company to provide a yearly Written Summary Form to the Ministry, to assist the Ministry with the review of the site's compliance with the EPA, the regulations and this Approval.

# 7. OPERATION AND MAINTENANCE

Condition No. 12 is included to require the Company to properly operate and maintain the Processes with Significant Environmental Aspects to minimize the impact to the environment from these processes.

# 8. COMPLAINTS RECORDING AND REPORTING PROCEDURE

Condition No. 13 is included to require the Company to respond to any environmental complaints regarding the operation of the Equipment, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

# 9. ANNUAL REPORT

Condition No. 14 is included to require the Company to provide a yearly report to the Ministry, to assist the Ministry with the review of the site's compliance.

# 10. RECORD KEEPING REQUIREMENTS

Condition No. 15 is included to require the Company to retain all documentation related to this Approval and provide access to employees in or agents of the Ministry, upon request, so that the Ministry can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this Approval is necessary.

#### 11. NOTIFICATION

Condition No. 16 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.

# 12. REVOCATION OF PREVIOUS APPROVALS

Condition No. 17 is included to identify that this Approval replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the EPA and dated prior to the date of this Approval.

# 13. NOISE ABATEMENT ACTION PLAN

Condition No. 18 is included to require the Company to implement a Noise Abatement Action Plan designed to ensure that the noise emissions from the Facility will be in compliance with applicable limits set in the Ministry's noise guidelines.

#### 14. ACOUSTIC AUDIT

Condition No. 19 is included to require the Company to gather accurate information and submit an Acoustic Audit Report in accordance with procedures set in the Ministry's noise guidelines, so that the environmental impact and subsequent compliance with the EPA, the regulation and this Approval can be verified.

# Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 7862-AQHKK4 issued on June 22, 2018

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review 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 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:

				The Director appointed for the purposes of
The Secretary*		The Minister of the Environment,		Part II.1 of the Environmental Protection Act
Environmental Review Tribunal		Conservation and Parks		Ministry of the Environment, Conservation
655 Bay Street, Suite 1500	AND	777 Bay Street, 5th Floor	AND	and Parks
Toronto, Ontario		Toronto, Ontario		135 St. Clair Avenue West, 1st Floor
M5G 1E5		M7A 2J3		Toronto, Ontario
				M4V 1P5

\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.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 March, 2022

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

KS/ c: District Manager, MECP Guelph Alex Breido, Wood