


AMENDED CERTIFICATE OF APPROVAL
AIR

NUMBER 9121-88EL3C

Issue Date: August 30, 2010

Ruetgers Canada Inc.
 725 Strathearne Avenue North
 Hamilton, Ontario
 L8H 5L3

Site Location: 725 Strathearne Avenue North
 Hamilton, Ontario

You have applied in accordance with Section 9 of the Environmental Protection Act for approval of:

the following modifications to reduce emissions of naphthalene, hydrogen sulphide and total reduced sulphur compounds. These modifications include the following:

- one (1) wastewater equalization and oil removal tank (TK-6) for process water, decanted tar water, process sump drains, and laboratory sinks drains, exhausting to Process Boiler B-1 and/or Process Boiler B-2 as noted in the Certificate of Approval (Air) Number 2586-733G9Q issued on May 19, 2007;

- one (1) Membrane Biological Reactor (MBR) to replace the Waste Treatment Unit (WTU) for the treatment of wastewater from TK-6 noted above, comprising:

. one (1) MBR anoxic tank (TK-46), containing a non-hazardous microbial culture, exhausting into the atmosphere through a stack, having an exit diameter of 0.15 metre, extending 0.2 metre above the roof and 12.2 metres above grade, and

. two (2) MBR aeration tanks (TK-36 and TK-47), containing a non-hazardous microbial culture, each exhausting into the atmosphere through a stack, having an exit diameter of 0.15 metre, extending 0.2 metre above the roof and 12.2 metres above grade,

exhausting into the atmosphere at a total volumetric flow rate of 0.22 cubic metre per second;

. two (2) MBR membrane tanks, each equipped with a cassette of membrane fibres and exhausting into the atmosphere at a total volumetric flow rate of 0.19 cubic metre per second through a stack, having an exit diameter of 0.15 metre, extending 1.0 metre above the roof and 7.0 metres above grade;

- one (1) exhaust system gathering vent gases from wastewater equalization tank (TK-6), coal tar and coal tar distillate storage tanks TK-1, TK-2, TK-3, TK-4, TK-5, TK-6, TK-7, TK-8, TK-9, TK-10, TK-11, TK-13, TK-14, TK-15, TK-21, TK-31, TK-31, TK-32, TK-33, TK-50, TK-51, TK-52, TK-69, TK-70, TK-72, TK-73, including vent gases from coal tar distillate and blended product storage tanks TK-25, TK-26, TK-39 and TK-40, with knock-out tanks (TK-84, TK-87, TK-89 and TK-90), venting to Process Boiler B-1 and/or Process Boiler B-2 as noted in the Certificate of Approval (Air) Number 2586-733G9Q issued on May 19, 2007;

all in accordance with the Application for Approval (Air & Noise) and the supporting documentation submitted by Ruetgers Canada Inc., signed by Gord Gilmet, dated May 26, 2009, the additional information provided by both Ruetgers Canada Inc. and Miley Company Limited, the Application for Approval (Air & Noise) dated December 18, 2003 and the supporting documentation and additional information associated with this application.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions

apply:

- (1) "Act" means the Environmental Protection Act.
- (2) "AERMOD" means the dispersion model, used in the application and supporting documents for this Certificate, developed by the American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model Improvement Committee (AERMIC) including the PRIME (Plume Rise Model Enhancement) algorithm, used to calculate one-hour average concentrations of a contaminant at the Point of Impingement.
- (3) "Certificate" means this Amended Certificate of Approval (Air), including Schedule "A", issued in accordance with Section 9 of the Act.
- (4) "Company" means Ruetgers Canada Inc.
- (5) "Director" means any Ministry employee appointed by the Minister pursuant to Section 5 of the Act.
- (6) "District Manager" means the District Manager, Hamilton District Office, West Central Region of the Ministry.
- (7) "Equipment" means the process boilers (B-1 and B-2) and the MBR as described in this Certificate and in the supporting documentation referred to herein, to the extent approved by this Certificate.
- (8) "Facility" means the entire operation on the property where the Equipment is located.
- (9) "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.
- (10) "Manual" means a document or a set of documents that provides written instructions to staff of the Company.
- (11) "Ministry" means Ontario Ministry of the Environment.
- (12) "O. Reg. 419/05" means Ontario Regulation 419/05, Air Pollution - Local Air Quality.
- (13) "Point of Impingement" means any point outside the Facility in the natural environment and as defined by s. 2 of O. Reg. 419/05.
- (14) "Pre-Test Information" means the information outlined in Section 1 of the Source Testing Code.
- (15) "Publication NPC-205" means Ministry Publication NPC-205, Sound Level Limits For Stationary Sources in Class 1 & 2 Areas (Urban), October 1995.
- (16) "Source Testing" means sampling and testing to measure the emissions resulting from operating the Facility under conditions which yield the worst case emissions within the approved operating range of the Facility, as determined in consultation with the Manager.
- (17) "Source Testing Code" means the Source Testing Code, Version 2, Report No. ARB-66-80, dated November 1980, prepared by the Ministry, as amended.
- (18) "Test Contaminants" means Benzo(a)pyrene, Hydrogen Sulphide, Total Reduced Sulphur compounds (as Hydrogen Sulphide) and Naphthalene.

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

TERMS AND CONDITIONS

PERFORMANCE REQUIREMENTS

1. The Company shall ensure that the noise emissions from the Facility comply with the limits set in Publication NPC-205.

SOURCE TESTING

2. The Company shall monitor the operation of the Equipment and the emissions from the Equipment as follows:

- (1) The Company shall perform Source Testing to determine the rates of emission of the Test Contaminants from stacks (TK-48, TK-49, TK-68 and TK-84) noted in the Certificate of Approval (Air) Number 2586-733G9Q issued on May 19, 2007 and the MBR stacks.
- (2) The Company shall submit, not later than three (3) months after the commencement of operation of the Equipment, to the Manager a test protocol, including the Pre-Test Information for the Source Testing required by the Source Testing Code.
- (3) The Company shall finalize the test protocol in consultation with the Manager.
- (4) The Company shall not commence the Source Testing until the Manager has accepted the test protocol.
- (5) The Company shall complete the Source Testing not later than six (6) months after the Manager has accepted the test protocol.
- (6) The Company shall notify the District Manager and the Manager, in writing, of the location, date and time of any impending Source Testing required by this Certificate, at least ten (10) business days prior to the Source Testing.
- (7) The Company shall submit a report on the Source Testing to the District Manager and the Manager 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:
 - (a) an executive summary;
 - (b) all records of the operating conditions;
 - (c) the results of dispersion calculations in accordance with AERMOD, as outlined in Schedule A, indicating the half-hour average concentrations of the Test Contaminants at the Point of Impingement.
- (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 District Manager and the Manager 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.

OPERATION AND MAINTENANCE

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

- (1) prepare, before commencement of operation of the Equipment and update, as necessary, a Manual outlining the operating procedures and a maintenance program for the Equipment, including:
 - (a) the routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;

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- (b) the emergency procedures;
 - (c) the procedures for any record keeping activities relating to operation and maintenance of the Equipment;
 - (d) procedures for recording of and responding to complaints regarding the operation of the Equipment;
- (2) establish a list of management and supervisory personnel responsible for the operation and maintenance of the Equipment;
- (3) implement the recommendations of the Manual.

RECORD RETENTION

4. The Company shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording and monitoring activities required by this Certificate. These records 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;
- (2) all records on the upset conditions associated with the operation of the Equipment and the remedial action taken;
- (3) all records on the environmental complaints; including:
 - (a) a description, time and date of each incident to which the complaint relates,
 - (b) wind direction at the time of the incident to which the complaint relates, and
 - (c) a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

SCHEDULE "A"

CALCULATE THE ONE-HOUR AVERAGE CONCENTRATIONS:

1. The one-hour average concentrations can be calculated as follows:
- (a) Calculate the one-hour average concentrations at the Point of Impingement and/or at any location acceptable to the District Manager, using the AERMOD atmospheric dispersion model 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 odour concentrations; and
 - (b) Convert the one-hour average concentrations predicted over the five (5) years of hourly local meteorological data to the half-hour average concentrations using the conversion formula noted below.

CONVERT THE ONE-HOUR AVERAGE TO THE HALF-HOUR AVERAGE CONCENTRATIONS:

2. Use the following formula to convert the one-hour average concentrations predicted by the AERMOD atmospheric dispersion model to the half-hour average concentrations:

$$X_{30\text{min}} = 1.20 * X_{60\text{min}}$$

where $X_{30\text{min}}$ = half-hour average concentration

X_{60min} = one-hour average concentration

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

1. Condition 1 is included to outline the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.
2. Condition 2 is included to require the Company to gather accurate information on a continuous basis so that the environmental impact and subsequent compliance with the Act, the regulations and this Certificate can be verified.
3. Condition 3 is included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the Act, the regulations and this Certificate.
4. Condition 4 is included to require the Company to retain records and provide information to the Ministry so that the environmental impact and subsequent compliance with the Act, the regulations and this Certificate can be verified.

This Certificate of Approval revokes and replaces Certificate(s) of Approval No. 8-2037-89-006, 8-2238-96-976, 8-2266-96-976 issued on July 21, 1989, January 28, 1997, May 1, 1997

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, S.O. 1993, Chapter 28, the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner 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:

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

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the works are located;

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

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director
Section 9, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 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 www.ene.gov.on.ca, you can

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determine when the leave to appeal period ends.

The above noted works are approved under Section 9 of the Environmental Protection Act.

DATED AT TORONTO this 30th day of August, 2010

Victor Low, P.Eng.
Director
Section 9, *Environmental Protection Act*

KW/
c: District Manager, MOE Hamilton - District
Jimmy Chang, Miley Company Limited