

Ministry of the Environment

P.O. Box 22032
Kingston, Ontario
K7M 8S5
613/549-4000 or 1-800/267-0974
Fax: 613/548-6908

Ministère de l'Environnement

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PROGRAM APPROVAL

Under section 10 of the *Environmental Protection Act*

Submitted by

Plasco Trail Road Inc. ("Plasco")

WHEREAS Plasco is the current owner of the plasma gasification facility ("Plasco demonstration project") located at Part Lot 9, Concession 4, Rideau Front in the former Township of Nepean, now in the City of Ottawa which is commonly known as the former Nepean Landfill;

AND WHEREAS the Plasco demonstration project generates electrical power from the gasification of up to 85 tonnes per day of municipal solid wastes and the combustion of synthetic gas for demonstration and pilot purposes and the feasibility of this demonstration activity is being assessed to determine the commercial and environmental viability of this as an alternative to the landfilling of municipal solid wastes while simultaneously generating electricity;

AND WHEREAS the gas engines at the Plasco demonstration project discharge a contaminant, organic matter, to the natural environment and the emissions have been recorded in excess of maximum emission limits for organic matter prescribed by O. Reg. 254/06 under the *Environmental Protection Act* ("EPA") and a Certificate of Approval 6925-6REN9E (air) for discharges to air issued under section 9 of the EPA.

AND WHEREAS Plasco has submitted to the Ministry of the Environment ("MOE") a proposal for a program to establish a temporary program to tune engine performance to find ways to stabilize the operation of the gas engines to reduce and control the discharge of organic matter, a copy of which is set out in "Schedule A";

AND WHEREAS the Director considers it consistent with the purpose of the EPA to issue the Program Approval, pursuant to section 10 of the EPA, to Plasco on the terms and conditions set out in this document.

AND WHEREAS Plasco knows and understands that the MOE, through the Director noted below or any other Director appointed for the purposes of section 10, may amend or revoke this Program Approval.

I HEREBY approve this Program directed to Plasco Trall Road Inc. The details of the Program Approval are as follows:

- 1.1 This Program Approval will expire on and no longer be applicable after March 31, 2009.
- 1.2 The issuance of this Program Approval in no way abrogates Plasco's responsibility to comply with applicable federal legislation. Also, it does not relieve Plasco of the obligation to comply with provincial regulatory requirements that are not addressed as part of the Program Approval.
- 1.3 Upon review of the information submitted in connection with this Program Approval the Director may, pursuant to, but not limited to, subsections 11(2), 11(3) and section 12 of the EPA, require Plasco to take further measures to control the discharge of air contaminants from the Plasco demonstration facility.
- 1.4 While this Program Approval is in effect, Plasco
 - i) will carry out tests and modify operating conditions with a purpose to stabilize the operation of the gas engines and to bring emissions into compliance with the emissions limits set out in the O. Reg. 254/06 and the Certificate of Approval 6925-6REN9E (air);
 - ii) shall ensure that the concentration of organic matter in discharges from gas engines at the Plasco demonstration project into the air do not exceed a maximum limit of 225 ppmv; and
 - iii) shall ensure that the steps set out in subsection 13(2) of O. Reg. 254/06 are taken if the concentration of organic matter in discharges from gas engines at the Plasco demonstration project into the air exceed 200 ppmv for more than one (1) hour.
- 1.5 Plasco shall ensure that the monthly engineer reports required by condition 49 of Provisional Certificate of Approval # 3166-6TYMDZ (waste) and condition 9 of Certificate of Approval 6925-6REN9E (air) include a summary of the activities undertaken pursuant to condition 1.4 of this Program Approval and describe the progress that has been achieved in reducing and controlling the discharge of organic matter.

Dated this 15th day of Dec, 2008.

Gayla Campney

Gayla Campney, Director, s. 10, *Environmental Protection Act*
Regional Director – Eastern Region - Operations Division
Ministry of the Environment

SCHEDULE "A"



Plasco Energy Group Inc.
1000 Innovation Drive, Suite 400
Ottawa, Ontario, K2K 3E7
Telephone. 613 591-9438
Fax. 613 591-9441

November 28, 2008

Steve Burns
District Manager, Ottawa District
Ministry of the Environment
2430 Don Reid Dr
Ottawa, Ont K1K 1B1

Subject: Plasco Trail Road
Topic: Air emissions from engines during testing and commissioning

Dear Sir,

As you are aware, we have been endeavouring to reduce the TOC emissions from our gas engines, to bring them into compliance with our regulation. The CEMs that is mounted on the engine stack indicates that our TOC emissions average 138 ppm at 11% O₂. Methane is the major contributor to our TOCs.

It is very difficult to find ways to reduce emission levels when we can only run the engines for very brief periods before we exceed our operational limits and are forced to shut down.

I therefore request that we be allowed to operate the engines in test mode for a period of four months. During this period of time we will endeavour to find ways to stabilize the operation of the engines and to bring their emissions into compliance with our regulation. During this period of time, we would request an operational limit of 200 ppm and a maximum limit of 225 ppm on our engine TOCs; all other air emissions limits would remain unchanged.

It is worth noting that the SO₂ channel on our CEMs has a cross-sensitivity to methane (i.e. SO₂ readings are elevated whenever our engine stack gas contains methane). We have ordered a methane channel for our CEMs, so that our SO₂ can be properly accounted for. Until the new instrument is received and commissioned, I propose that we use SO₂ emissions from the flare to indicate SO₂ emissions from the engines.

Sincerely



Ken Campbell
VP Operations

Come Visit us at
www.plascoenergygroup.com

