

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Mulder Construction and Materials Ltd.
PROPOSAL NAME: Asphalt Plant – Unit Boeing, MS 200
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Transportation
CLIENT FILE NO.: 5310.00

OVERVIEW:

On October 2, 2007, Manitoba Conservation received a Proposal for the continued operation of a portable asphalt plant at locations throughout Manitoba. Additional information was provided on January 8, 2008. The operating hours of the facility are any time between sunrise and sunset in the months of May to November. The facility produces asphalt for use in road construction and repair. There are particulate matter, VOC, NOx, odour, and other air emissions associated with the operation of an asphalt plant.

The Department, on January 28, 2008, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station) Main Floor, Winnipeg; the Millennium Public Library, 4th Floor, 251 Donald Street, Winnipeg; and the Manitoba Eco-Network, 3rd Floor, 303 Portage Ave., Winnipeg. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. A notice of the Environment Act proposal was also placed in the Winnipeg Free Press on February 2, 2008. The newspaper and TAC notifications invited responses until March 7, 2008.

COMMENTS FROM THE PUBLIC:

No public comments were received.

Disposition:

No action needed.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Intergovernmental Affairs & Trade – Provincial Planning Services

No concerns.

Disposition:

No action needed.

Manitoba Agriculture, Food and Rural Initiatives

Recommended that in the case where an asphalt plant is sited on land suitable and used for agricultural production a mitigation plan should be provided to ensure that no land is lost from agricultural production in the decommissioning of the temporary asphalt plant site.

Disposition:

Clauses 40 and 41 of the Environment Act Licence address this concern.

Manitoba Science, Technology, Energy & Mines – Mines Branch

Advised that some locations may not be suitable for an asphalt plant and that a conditional use order may be required from the relevant municipality.

Disposition:

Clauses 9 to 11 of the Environment Act Licence address location.

Environment Canada – Environmental Protection Operations Branch

The following comments were provided:

- Temporary (mobile) asphalt plants can emit significant amounts of fine and coarse particulates and gaseous emissions. Particulate matter less than 2.5 microns in size (PM_{2.5}) has been declared toxic under CEPA because of human health and environmental concerns. Environment Canada has concerns regarding these types of operations, and refers the proponent to the Canada-wide Standards for Particulate Matter (PM) and Ozone that was developed by the CCME. The hot-mix asphalt sector is one industrial sector where emission reduction strategies for PM were developed as asphalt plants can emit significant amounts of PM and gases if not equipped with proper air pollution control devices or if these control devices are not operated or maintained properly.
- The proponent stated that the stack emissions include “steam”, “heat”, “minute dust particles and gases resulting from normal combustion of recycled oil or propane”. This does not provide sufficient information on the type of pollution control system that is installed to mitigate the emission of particulate matter and the other gaseous emissions such as VOCs, or how fugitive emissions will be controlled.
- The proponent has not also provided any information on the constituents of the recycled oil that is proposed to be used as fuel for the asphalt plant.
- EC recommends that Manitoba Conservation require mobile asphalt plants to install secondary air emission controls to reduce their particulate and gaseous emissions.
- EC also recommend that the proponent be required to implement the Best Available Techniques (BAT) as outlined in Section 4.2 of the “*Multi-pollutant*

Emission Reduction Analysis Foundation (MERAf) for the Hot-Mix Asphalt Sector (September 2002)” This report is available at www.ccme.ca/assets/pdf/hot_mix_asphalt_final_meraf_e.pdf

- The proponent should also be aware that temporary asphalt plants are required to report under the National Pollutant Release Inventory.

Disposition:

The proponent provided additional information that addressed the above listed concerns. In addition, clauses 17 to 32 of the draft Environment Act Licence address concerns related to air emissions and clause 16 addresses acceptable fuel types.

Health Canada

No comments specific to the proposal were provided, but Health Canada offered its expertise in several biophysical areas related to human health.

Disposition:

No action needed.

Manitoba Water Stewardship

The following comments were provided:

- *The Water Rights Act* indicates that no person shall control water or construct, establish or maintain any “water control works” unless he or she holds a valid license to do so. “Water control works” are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, or changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If the proposal in question advocates any of these activities, application for a Water Rights License to Construct Water Control Works is required.
- The use of water from a self-supplied water source may require authorization under *The Water Rights Act*.
- The Proposal indicates adherence to the Manitoba Heavy Construction Associations “Temporary Asphalt Siting Guidelines” (1996); these guidelines do not address siting adjacent to water bodies/watercourses. The Department recommends implementing the following:

- Temporary asphalt plants are located 100 metres away from any surface water and at minimum a 30 metre buffer of natural vegetation is maintained between the perimeter of the asphalt site and the surface water.
- Part of Section 6b is incorrect in the “Temporary Asphalt Siting Guidelines,” indicating that discarded asphalt can be buried. This should be amended to: “discarded asphalt will be disposed at a waste disposal area and burial on site will not be allowed.”
- Section 9 within the “Temporary Asphalt Siting Guidelines” is incomplete and should be amended to state: “Temporary asphalt plant sites shall to the extent practicable be reviewed and sited at an early stage in consultation with Local Municipal Authority and an Environment Officer in the area in which the plant is to be located.”
- In addition to the following the Manitoba Heavy Construction Association’s document “Best Environmental Management Practice: Asphalt Plants,” the following will also be implemented when siting and during operation:
 - Temporary asphalt plants are to be located a minimum of 400 metres from any residence or water well other than the residence or water well of the land owner (if any) where the plant is located unless otherwise agreed to in writing by the residents. In the event a water well does occur on the plant site, the plant shall be located at least 100 metres from the water well.
 - The handling, transport, storage and disposal of petroleum and allied products will be done in accordance with the Storage and Handling of Petroleum and Allied Products Regulation (MR188/2001) or other regulations under *The Dangerous Goods Handling and Transportation Act*.
 - Further, the “Temporary Asphalt Siting Guidelines” indicate that “asphalt oil is a by-product of petroleum and in itself is environmentally neutral.” Petroleum products can have a variety of contaminants such as polycyclic aromatic hydrocarbons. Use of binders and additives for viscosity adjustment in the asphalt production phase could add other potential contaminants of concern if released into water. Hardened asphalt road materials may generally be considered to have little ecological effect but it is the hot asphalt oil phase where environmental protection measures should also be implemented.

- The proposed site will be searched for any abandoned wells and if found, they will be sealed according to proper well sealing techniques. Any on-site water well(s) should be constructed and adequately protected to ensure surface water and/or contaminants will not enter the well.
- Wastewater and sewage generated on the site will be managed in accordance with the Onsite Wastewater Management Systems Regulations of *The Environment Act* or discharge the wastewater and sewage to a municipal sewer system designed to receive such wastes.
- An emergency response plan will be developed for each asphalt plant. On-site spill kits will be provided for accidental spills.

Disposition:

Clause 10 of the Environment Act Licence addresses the siting of asphalt plants, clause 11 addresses abandoned wells, and clause 39 addresses emergency response. Existing Manitoba Regulations address the remaining expressed concerns.

Manitoba Conservation

Operations Division provided the following recommendations:

- The proponent should submit a process flow chart with detailed description of each stage of the process including any pollution control devices associated with the plant
- The proponent should install stack sampling ports.
- An extensive list of licence clauses was recommended, all are included in the draft Environment Act Licence.

Parks & Natural Areas provided comments with respect to the location of temporary asphalt plants.

Air Quality provided extensive comments, mostly related to the use, or absence of, air pollution control equipment and the resultant effect on air quality.

Disposition:

The proponent provided the additional information requested by Manitoba Conservation. Clauses 9 – 11 of the Environment Act Licence address siting of the asphalt plants and clauses 17 – 32 address concerns related to air emissions.

Manitoba Culture, Heritage, Tourism and Sport – Historic Resources Branch

No concerns.

Disposition:

No action necessary.

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponents should be issued Licences for the continued operation of an asphalt plant in accordance with the specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be retained by the Environmental Assessment and Licencing Branch until January 1, 2010 at which time it should be assigned to Regional Operations.

A draft environment act licence is attached for the Director's consideration.

Prepared by:

Ryan Coulter, M.Sc., P.Eng.
Environmental Engineer
Municipal, Industrial, and Hazardous Waste Section
May 2, 2008

Telephone: (204) 945-7023
Fax: (204) 945-5229
E-mail Address: ryan.coulter@gov.mb.ca