

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Shelmerdine Ltd.
PROPOSAL NAME: Biomass Energy System
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Gasification Plant
CLIENT FILE NO.: 5380.00

OVERVIEW:

On December 11, 2008, Manitoba Conservation received a Proposal for the construction and operation of gasification plant located at 7800 Roblin Boulevard in the Rural Municipality of Headingley. The facility will run 24 hours a day during the months when heat is required and will process wheat straw to generate heat

The Department, on January 7, 2009, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Winnipeg Public Library, the Manitoba Eco-Network, and the Millennium Public Library. 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 Headingley Headliner on January 16, 2009. The newspaper and TAC notifications invited responses until February 5, 2009

COMMENTS FROM THE PUBLIC:

No public responses were received.

Disposition:

No action needed.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Canadian Environmental Assessment Agency

No concerns.

Disposition:

No action needed.

Environment Canada

The following is a summary of the comments were provided:

1. In page 3 of the report, the proponent stated that the air emission from the BEST unit as tested by Dillon Consulting Ltd. will be “around” the values in the table. It is not clear to Environment Canada (EC) whether the values in the table included particulate matter (PM2.5 and PM10). In addition, the proponent did not indicate how these numbers compare with CCME Endorsed Canada-Wide Standards for Particulate Matter (PM) and Ozone. There is no impact analysis or interpretation of this emission results on the surrounding air environment as each of the three test periods lasted 52, 56, & 66 minutes respectively.

The stack testing values represented total particulate matter. Screening level air dispersion modelling conducted by Manitoba Conservation indicated compliance with the Canada Wide Standards.

2. The schematic diagram of the BEST did not show the location of the cyclone that would remove the dust particles and how much of these are removed by the cyclone before exhaustion into the air. Secondly, the location of the air sampling port according to the report is located in piping between the heat exchanger and the exhaust blower inside of the process building. Should the stack not be the appropriate place to have a port where samples of air emission are taken? It is not obvious why the location between the heat exchanger and the blower is a preferred sampling location.

Manitoba Conservation agrees that the stack is the most appropriate location for air emission sampling. However, it is believed that the stack sampling report provides accurate information regarding PM emissions. The sampling location was after the cyclone. New testing will be required at a similar unit.

3. The report indicates that the air emissions from the BEST system are not fully characterized. EC recommends that the proponent be required to fully characterize the emission from their system and to ensure that air emission monitoring program is implemented.
4. The proponents should also be aware of the National Pollutant Release Inventory (NPRI) requirements: http://www.ec.gc.ca/pdb/npri/npri_about_e.cfm.

Disposition

Clauses 8 to 23 of the Draft Environment Act Licence address air emissions. Stack sampling will be completed on an equivalent unit operated by R.M.D. Realty Ltd.

Manitoba Health

The following is a summary of the comments provided:

The general health concern is that the air emissions are below the recommended parameters. The area is not heavily populated but there are some homes directly across the street/highway. There may be problems with smoke impacting these homes.

Disposition:

Clause 8 to 23 of the Draft Environment Licence addresses air emissions

Manitoba Infrastructure and Transportation (MIT) – Highway Planning and Design Branch

No concerns.

Disposition:

No action needed.

Manitoba Science, Technology, Energy and Mines – Mines Branch

No concerns

Disposition:

No action needed.

Manitoba Culture, Heritage and Tourism – Historic Resources Branch

The following comment was provided:

1. No concerns with regard to this project's potential to impact heritage resources. If at any time however, significant heritage resources are recorded in association with these lands during development, the Historic Resources Branch may require that an acceptable heritage resource management strategy be implemented by the developer to mitigate the effects of development on the heritage resources.

Disposition:

No action needed.

Manitoba Conservation – Regional Operations

The following is a summary of the comments were provided:

1. Depending on how terms with respect to opacity are put in the licence, smoke emissions on start-up may give rise to non-compliance issue if complaints are received regarding the operation of the unit.

The proponent is expected to comply with Licence terms, conditions, and limits at all times

2. The volume of hay required to be stored on site may give rise to rodent infestation.

Disposition:

Clauses 8 to 23 of the Draft Environment Act Licence addresses air emissions and clause 26 addresses straw storage.

Manitoba Conservation – Sustainable Resource & Policy Management Branch

No concerns

Disposition

No action needed.

Manitoba Conservation – Wildlife & Ecosystem Protection Branch

No concerns

Disposition

No action needed.

Manitoba Conservation – Lands and Geomatics

No concerns

Disposition

No action needed.

Manitoba Conservation – Parks and Natural Areas Branch

No concerns

Disposition

No action needed.

Manitoba Conservation – Pollution Prevention Branch

The following comments were provided:

1. An EA License (No. 2810) was issued for an identical “Biomass Energy System” to Vidir Machine Shop Ltd. (Gasification Plant) last April 9, 2008 located in the RM of Bifrost.
2. The proponent is again using the same data from the emission testing conducted by Dillon Consulting in 2005. From that emission testing activity, the PM concentration exceeded the Manitoba Conservation’s limit of 0.23 g/dm³. However, the proponent, at that time, satisfactorily explained that much improvement has been done since the testing was conducted and it is expected that the PM emission will be much less than the limit. Considering that the system is now being manufactured for commercial distribution, **it is suggested that new emission testing be conducted once the system is in operation to ensure compliance with MB’s PM emission limit.**
3. The nearest off-site receptor is a farm residence about 150 meters north-east of the biomass system. However, using Screen3 dispersion modeling and data from the emission testing conducted by Dillon in 2005, PM concentration will be within the Canada wide standards for PM.
4. It is suggested that the detailed conditions on noise/odour nuisance, PM, opacity, emission testing and reporting be included in the EA license clauses.

Disposition:

Clauses 8 to 23 of the draft Environment Act Licence address air emissions. Stack sampling will be completed on an equivalent unit operated by R.M.D. Realty Ltd.

Manitoba Water Stewardship

The following comments were provided:

1. *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 licence 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 a proposal advocates any of the aforementioned activities, an application for a Water Rights Licence to Construct Water Control Works is required. Application forms are available from any office of Manitoba Water Stewardship.

2. The proponent needs to be informed that if the proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.
3. The proponent should contact the Water Use Licensing Section directly to determine if they will require a Water Rights licence. A contact person is Ms. Kristina Anderson at 945-6009.
4. If it is anticipated that water will be used for cleaning or any other purpose in the BEST process or facility (eg. cooling, toilet facilities), the proponent should specify an appropriate method of disposal for the wastewater.

Disposition:

The proponent was notified of Manitoba Water Stewardship's concerns.

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the construction and operation of a gasification 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 Licensing Branch.

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

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February 12, 2009

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