

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Plasti-Fab Ltd.
PROPOSAL NAME: Plasti-Fab Manitoba.
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Manufacturing -
CLIENT FILE NO.: 5680.00

OVERVIEW:

Manitoba Conservation and Water Stewardship received a Proposal on September 12, 2013 for the continued operation of an expanded polystyrene foam manufacturing facility located at 2485 Day Street in Winnipeg, Manitoba. The facility manufactures expanded polystyrene foam products for insulation and packaging use.

The Department, on October 25, 2013, placed copies of the Proposal in the Public Registries located at Legislative Library (200 Vaughan Street), the Winnipeg Millennium Public Library in Winnipeg and online at <http://www.gov.mb.ca/conservation/eal/registries/5680plastifab/index.html>. 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 October 26, 2013. The newspaper and TAC notifications invited responses until November 26, 2013.

COMMENTS FROM THE PUBLIC:

No Comments.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Canadian Environmental Assessment Agency

No Comments.

Manitoba Agriculture – Land Use Branch

No Response.

Manitoba Conservation and Water Stewardship –Protected Areas Initiative Branch

No Concerns.

Manitoba Conservation and Water Stewardship – Compliance and Enforcement Branch

No Response.

Manitoba Conservation and Water Stewardship – Programs and Strategies Branch – Air Quality Section

Air Quality Section has reviewed the above proposal and provides the following comments:

- *Expanded Polystyrene processing plant is a potential source of VOC, particularly styrene and pentane. The process flow diagram shows some fugitive and stack emissions of VOC's that may have some impact on surrounding air quality. Manitoba Ambient Air Quality Criteria (MAAQC) has 24-hour average standard for styrene which is $400 \mu\text{g}/\text{m}^3$ or 94 ppb. Air quality section has understood that no ambient air quality measurement has performed so far. It is recommended that the proponent should ensure the compliance of 24-hour average standard for styrene in the plant's surrounding area.*
- *The proponent should conform to the Canadian Council of Ministers of the Environment's (CCME) environmental guideline for the reduction of VOC emissions from the plastics processing industry (CCME PN 1276, July 1997). It has noticed in the provided material safety data sheet that the expandable polystyrene resin contains <7.0% n-Pentane which should be <5.0% according to CCME guideline (section 9.2).*

Proponent Response (January 13, 2014)

This letter is in response to two issues raised in the letter dated November 24, 2013 from the Air Quality Section Manitoba Ministry of Conservation and Water Stewardship. To address item #1, Plasti-Fab has retained the services of AMEC Earth and Environmental to prepare a plan to address the question raised regarding 24 hour average standard for styrene in our plant's surrounding area. AMEC representatives may be contacting you to clarify the requirements before preparing their proposal. Plasti-Fab will provide MB Conservation with the plan details and timeline for your review before we proceed.

In regards to CCME 1997 Guideline, Reduction of VOC emissions from the plastics industry (CCME PN 1276, July 1997), Plasti-Fab would require additional time and capital investment in order to comply with the requirement of using only EPS resin with <5.0% VOC content. Expandable polystyrene foam manufacturing process involves an initial expansion step using equipment known as an "expander". The expansion step determines the density of the foam to be produced. Density is the means for differentiating the various product types we manufacture. Plasti-Fab markets products at several densities in the range 9.5 kg/m³ to 40 kg/m³. The Winnipeg facility uses an older type of expander which operates at atmospheric pressure. This particular continuous expander is not capable of achieving density below 20 kg/m³ unless regular VOC (>6.5%) containing resin is used. Above 20 kg/m³ Plasti-Fab can utilize the low VOC (<5.0%) resin and this is already done, in fact 40% of the resin consumed in 2013 was low VOC. In order to process all foam product types using low VOC resin the facility would need to purchase and install a pressurized batch expander. The estimated cost of this capital project is in

the range of \$550,000 to 750,000 and would take approximately one year to complete. The cost and timeline may be impacted by the engineering review if the required space is not available in the building. Plasti-Fab requests the necessary time to complete the engineering review, purchasing, installation and commissioning process.

Air Quality Section Comment (January 23, 2014)

Air Quality Section has the following comments on the response received from Plasti-Fab Ltd.:

- *Regarding the measurement of ambient styrene concentration in the plant's surrounding area, they may use what Environment Canada (EC) and the Ontario Ministry of Environment recommend, which is EPA Compendium Method TO-14 or its recent version. Also, Air Quality Section suggests that the proponent should update their indoor air quality tests associated with styrene as this is more than ten years old.*
- *Considering the costs required to comply with the Canadian Council of Ministers of the Environment's (CCME) 1997 guideline regarding reduction of VOC emissions from the plastics processing industry, Air Quality Section suggests that the proponent submit an emission management plan to comply with the 1997 guideline which may include both short term and long term plans.*

Disposition

The proponent provided additional information indicating that a consultant is retained to prepare a plan addressing styrene emission. The proponent also indicated the willingness to manage pentane content of the expandable polystyrene beads. Air Quality Section has reviewed the responses and recommended submission of ambient styrene concentration monitoring and pentane management plans. In addition the draft Environment Act Licence clauses 11 and 12 addresses the requirement to submit the recommended plans.

Manitoba Conservation and Water Stewardship – Wildlife Branch

No Concerns

Manitoba Conservation and Water Stewardship – Parks and Natural Areas Branch

Parks and Natural Areas Branch has reviewed the proposal and the Branch has no comments or concerns as it does not affect any parks or ecological reserves.

Manitoba Conservation and Water Stewardship – Forestry Branch

No Response.

Manitoba Conservation and Water Stewardship – Aboriginal Relations Branch

No Response.

Manitoba Conservation and Water Stewardship – Lands Branch

No Concerns.

Manitoba Conservation and Water Stewardship – Water Science and Management Branch

No Concerns.

Manitoba Conservation and Water Stewardship – Groundwater Management Section

No Response.

Manitoba Conservation and Water Stewardship– Fisheries Branch

No Response.

Manitoba Conservation and Water Stewardship – Office of Drinking Water

No Concerns

Manitoba Conservation and Water Stewardship– Water Use Licensing Section

No Response.

Manitoba Conservation and Water Stewardship – Water Control Works Licensing Section

No Response.

Manitoba Conservation and Water Stewardship– Climate Green Initiative Branch

No Response.

Manitoba Conservation and Water Stewardship– Regional Services Branch

No Response

Manitoba Culture, Heritage and Tourism – Heritage Branch

No Response.

Manitoba Innovation Energy and Mines – Energy Development Branch

No Comments.

Manitoba Innovation Energy and Mines – Petroleum Branch

No Response.

Manitoba Infrastructure and Transportation – Flood Forecasting Branch

No Response.

Manitoba Infrastructure and Transportation – Highway Planning and Design Branch

No Concerns.

Manitoba Intergovernmental Affairs

No Response.

Manitoba Health – Environmental Health Unit

No Response.

Manitoba Labour – Office of Fire Commissioner

The Office of the Fire Commissioner recommends that with the continued operation of this facility, an updated Fire Safety Emergency Response Plan be with the local fire authority, the Winnipeg Fire Paramedic Service.

Disposition

The proponent is notified of the recommendation to obtain an updated fire safety/ emergency response plan. In addition the Licence cover letter requires the licensee to comply with any other legislative requirements.

Manitoba Labour – Work Place Safety & Health

No Response

PUBLIC HEARING:

A public hearing is not recommended.

CROWN-ABORIGINAL CONSULTATION:

The Government of Manitoba recognizes that it has a duty to consult in a meaningful way with First Nations, Métis communities and other Aboriginal communities when any proposed

provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or Aboriginal right of that First Nation, Métis community or other Aboriginal community.

This facility is an existing expanded polystyrene foam manufacturing facility located on a private land within the boundary of the City of Winnipeg. There would be no infringement of aboriginal or treaty rights under Section 35 of the Constitution Act, 1982. Therefore, it is concluded that Crown-Aboriginal consultation is not required for the project.

RECOMMENDATION:

The Proponent should be issued a Licence for the continued operation of an expanded polystyrene foam manufacturing facility in accordance with the specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Environmental Compliance and Enforcement Branch of Manitoba Conservation and Water Stewardship.

A draft Environment Act Licence is attached for the Director's consideration.

Prepared by:

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January 27, 2014

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