

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Cross Country Manufacturing Ltd.
PROPOSAL NAME: Cross Country Manufacturing Ltd.
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Manufacturing Plant
CLIENT FILE NO.: 5373.00

OVERVIEW:

On October 21, 2008, Manitoba Conservation received a Proposal for the continued operation of a truck box manufacturing facility located at 418 Railway Street in Morden, Manitoba. Manufacturing processes include sheer cutting of metal, welding, grinding, sandblasting, and painting. There are potential dust, odour, and noise emissions associated with the manufacturing process.

The Department, on November 5, 2008, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Millennium Public Library, the Manitoba Eco-Network, and the South Central Regional 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 Morden Times on November 14, 2008. The newspaper and TAC notifications invited responses until December 12, 2008.

COMMENTS FROM THE PUBLIC:

No public comments were received.

Disposition:

No action needed.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Infrastructure and Transportation

No concerns.

Disposition

No action needed.

Manitoba Conservation – Parks and Natural Areas Branch

No concerns.

Disposition

No action needed.

Manitoba Science, Technology, Energy and Mines

No concerns.

Disposition

No action needed.

Manitoba Conservation – Regional Operations

The following comments were provided:

1. Sand blasting is to be done in an enclosed structure but there is no mention on how they propose to collect air born particulate matter especially when a doorway is left open during the process. Also they do not mention how they plan on collecting or disposing of the spent material. They do mention they plan on recovery of the product and reuse. That is a positive.

The proponent responds that the transition to a mineral-based abrasive in place of sand has resulted in an estimated 70% reduction in dust emissions. Spent abrasive that can not be reused will be disposed of at a waste disposal ground.

2. The location of this industry to the residential area and the senior home may lead to nuisance concerns of noise from truck traffic especially if it occurs outside normal working hours. In house measures should be implemented to reduce these concerns as much as possible.

The proponent responds that noise is managed by positioning the blasting operation on the west side of the main building, creating a noise barrier to the residential area to the east. The proponent has also installed a six foot fence and agreed to limit outdoor activity as per a Development Agreement with the Town of Morden.

Disposition

The proponent completed air dispersion modelling that indicated compliance with ambient air quality criteria when following the described procedures. Clauses 8 to 13 of the draft Environment Act Licence address air emissions. Clause 10 specifically addresses noise.

Manitoba Agriculture, Food, and Rural Initiatives

No concerns

Disposition

No action needed.

Regional Health Authority – Central MB Inc.

The following comments were provided:

1. Will there be some type of ongoing monitoring to make sure that these standards (related to noise and dust, a source of previous complaints) are being met consistently?
2. The other concern relates to an emergency response plan in case of a spill or a fire. With the residents living so close by, a major incident would likely require evacuation and this will be difficult with an elderly population that would require significant help. The business should have a good emergency response plan in place and share this with their corporate neighbours so that everyone will be able to respond in a coordinated fashion if this event should ever arise.

Disposition

Clauses 8 to 13 of the draft Environment Act Licence address air emissions and clause 16 addresses emergency response planning.

Environment Canada

The following comments were provided:

1. The proponent stated that abrasive blasting will generate a significant amount of dust: particulate matter (PM). Several studies have linked PM to aggravated cardiac and respiratory diseases such as asthma, bronchitis and emphysema and to various forms of heart disease. PM can also have adverse effect on vegetation, structures, and contributes to visibility deterioration and regional haze. (http://www.ec.gc.ca/cleanair-airpur/PM_2.5,10-WS2C68B45C-1_En.htm).
2. The type of operation described above especially with portable units and blasting equipment in general can generate a large amount of dust and particulates. The significance of this waste product will vary depending on whether the specific piece of equipment used for the operation is designed to control fugitive emissions itself or whether additional systems are necessary. It is therefore important to note that systems and procedures should be in place for the efficient collection of particulates and dust. There are technologies available to enable grit blasting equipment to be operated equipped with a filtered ventilation system to contain and collect waste materials or prevent PM to escape into the environment.

The proponent responds that the transition to a mineral-based abrasive in place of sand has resulted in an estimated 70% reduction in dust emissions

3. The proponent is also advised to consult *Canada-Wide Standards For Particulate Matter (PM) and Ozone* (http://www.ccme.ca/assets/pdf/pmozone_standard_e.pdf).

Disposition

The proponent completed air dispersion modelling that indicated compliance with ambient air quality criteria when following the described procedures. Clauses 8 to 13 of the draft Environment Act Licence address air emissions

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 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 the proposal in question advocates any of these activities, 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.

Disposition

No action needed.

Manitoba Conservation – Sustainable Resource & Policy Management Branch

No concern.

Disposition

No action needed.

Manitoba Conservation – Pollution Prevention Branch

The following comments were provided

1. Abrasive Blasting. This will be the main source of PM emissions from the operation. Although the blast enclosure will significantly reduce dust emissions, leakages from wall joints, torn canvass, open doors shall be minimized. Also, the exhaust ventilation of the enclosure shall not be vented directly to the atmosphere without providing adequate PM control. Note that the abrasive material has a potential to cause eye irritation with contact and may be harmful to the respiratory system if inhaled. Although, the abrasive material is generally larger than 50 microns in size, it may be broken down into respirable size range during blasting. Lastly, there was no discussion on the ventilation and abrasive material recovery system on the blast enclosure.

The proponent responds that the transition to a mineral-based abrasive in place of sand has resulted in an estimated 70% reduction in dust emissions

2. Welding emission (metal fumes) has a potential to generate nuisance for nearby residences. Moreover, these fumes will be released through an exhaust fan to the east side of the building where the residential areas are located.

The proponent responds that welding emission calculations were based on USEPA AP-42 emission factors and conservative engineering estimates.

3. Painting systems typically emit VOCs present in the paint(s) and solvent(s) being used. There was no mention of a control method to address these emissions except that they are being discharged through a rectangular stack. There was no mention on the type of paints and solvent the operation will use.

The proponent responds that the paint spray booth will be improved with high efficiency fabric arrestor filters

4. Screening model runs were made to determine dispersion of contaminants. The US EPA emission factor used in the abrasive blasting is rated E (poor) which means that the reliability of the data is low. It is suggested that adequate PM control measures be instituted in the abrasive blasting activity. It is also suggested that appropriate control method be installed on the stack to minimize VOC release (e.g. adsorbent filters).

The proponent responds that the USEPA SCREEN3d dispersion model was used to determine the maximum concentrations of particulate matter and metals resulting from site operations. A separate model run was completed for each process. The maximum contaminant concentrations from each process were summed together to obtain the conservative, worst-case concentration.

5. The limit for Particulate Matter (PM) as mentioned in the application should have been 120 ug/m³ (maximum acceptable level concentration) instead of 400 ug/m³.
6. The detailed odour/noise clauses are suggested to be included in the EA License conditions.

Disposition

The proponent completed air dispersion modelling that indicated compliance with ambient air quality criteria when following the described procedures. Clauses 8 to 13 of the draft Environment Act Licence address air emissions

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the continued operation of a truck box manufacturing facility in accordance with the specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Central Region of Manitoba Conservation.

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