

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Boulet Brothers Concrete Ltd.  
**PROPOSAL NAME:** Ste. Agathe Concrete Batch Plant  
**CLASS OF DEVELOPMENT:** 1  
**TYPE OF DEVELOPMENT:** Concrete Batch Plant  
**CLIENT FILE NO.:** 5408.00

### **OVERVIEW:**

On April 28, 2009, Manitoba Conservation received a Proposal for the construction and operation of a concrete batch plant to be located at Lot 5/6-7-2-3-4-39087 in the Riel Industrial Park in the RM of Ritchot. The facility will produce ready mix concrete for off-site use and will operate Monday to Saturday between the hours of 7:00 am and 8:00 pm.

The Department, on May 4, 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 Steinbach Carillon on May 7, 2009. The newspaper and TAC notifications invited responses until June 5, 2009

### **COMMENTS FROM THE PUBLIC:**

The following concerns were received from the public:

- Given the proximity to Ste. Agathe School this proposal should incorporate best available control technologies to minimize air pollutants, especially particulate matter from cement and fly ash dust as well as aggregate and sand dust.
- The baghouse should be subject to more rigorous inspection and maintenance than is indicated in the proposal. In addition I would like to see more information on the efficiency of the baghouse filter (Appco Generic) for particulate matter less than 10 microns. Also, data on prevailing winds is necessary. Some form of monitoring levels of PM10 at the school yard should be considered if prevailing winds bring particulate matter from the plant.
- Some best management practices for ensuring proper baghouse operations:
  - Fabric bags should be fitted properly and inspected regularly
  - Replace any damaged or torn fabric bags observed during inspections
  - The silo pop valve should be checked regularly
  - Keep a written record of all inspections and maintenance
- Some alternatives for minimizing dust emissions from batch plant operations:
  - Consider covers or partial enclosures for elevated conveyors into plant

- Using spray bars for dust suppression at aggregate transfer points (e.g., at the end of the conveyor belt which charges the aggregate bins).
  - Enclose or shield aggregate storage areas and transfer points
  - For new batch plant construction, consider batch plant location in an area with minimum exposure to prevailing winds
- Some alternatives for minimizing dust emissions from aggregates storage:
    - Consider higher moisture content in aggregates delivered to yard
    - Partial enclosures or below grade pads for aggregate stockpile areas
    - Minimize exposed surface area of aggregate stockpiles
    - Minimize number of transfer points for raw materials
    - Minimize drop heights for conveyor or hoppers
    - Consider fencing property boundaries using 2-metre high solid fence (i.e., concrete block, wood plank or chain link with PVC plastic)
    - For new plant site construction, consider plant site location in an area with minimum exposure to prevailing winds.
- Some alternatives for minimizing dust emissions from plant site traffic:
    - Consider paving or hard surfacing of high traffic areas around yard
    - Keep paved or hard surfaced areas clean
    - For new plant site construction, consider plant site location in an area with minimum exposure to prevailing winds.
- Given the plants proximity to Ste. Agathe park (a recreational and camping site) the proposal should include strategies to minimize noise
- Another strategy to combat noise complaints is to isolate the ready mixed concrete plant from its neighbours. When planning new concrete plants, or upgrading existing facilities, consider these techniques to isolate noise:
    - Locate ready mixed concrete plants in compatibly zoned areas.
    - Lower the overall plant site elevation relative to site elevations of neighbours' property. (This strategy can be combined with the storm water retention system to prevent storm water from running off the property).
    - Use sound barriers, high walls, earthen berms capped with vegetation and tree lines to attenuate the noise at the property line.
    - Install the cement delivery blower in a sound proof enclosure.
    - Situate the plant as far as is practical from the property line of neighbours who might be disturbed.
- Also is there an estimate on the increase in traffic on PR 305 next to the school?

Disposition:

The proposed location for the facility is within an industrial park, therefore it is proposed to be located in an appropriately zoned area. Clauses 8 – 25 of the draft Environment Act Licence address air emissions and clause 28 addresses wastewater. Manitoba Infrastructure and Transportation reviewed the proposal and provided the comments produced below.

### **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 provided:

- Portable or mobile concrete plants can emit significant amounts of fine and coarse particulates and gaseous emissions. Particulate matter less than 2.5 microns in size (PM<sub>2.5</sub>) has been declared toxic under CEPA because of human health and environmental concerns. (A good fact sheet outlining environmental and health effects of PM is available at [http://www.ec.gc.ca/air/p-matter\\_e.html](http://www.ec.gc.ca/air/p-matter_e.html))
- Concrete is made by mixing Portland cement, water, and coarse (stone) and fine (sand) aggregates and may include the addition of admixtures (chemicals to control setting properties). Supplementary cementing materials (SCMs) may also be used to replace a portion of the cement. SCMs used include fly ash (by-product of coal-fired power generation), ground blast furnace slag (by-product of metals smelting) and micro silica (silica fume). This project description did include the use of fly ash as SCM.
- The concrete manufacturing process releases the following substances declared toxic under the Canadian Environmental Protection Act, 1999 (CEPA): PM<sub>10</sub>, sulphur oxides, nitrogen oxides, volatile organic compounds, and ground level ozone.
- Particulate matter is the main substance of concern released from this sector, accounting for about 1.6% of the total PM from Canadian sources. PM is mainly released through fugitive emissions during materials handling and storage activities. For details please see [http://www.ec.gc.ca/cleanair-airpur/Concrete-WSB02E25FD-1\\_En.htm](http://www.ec.gc.ca/cleanair-airpur/Concrete-WSB02E25FD-1_En.htm).
- Environment Canada has concerns regarding these types of operations, and refers the proponent to the Canada-Wide Standards for PM and Ozone that was developed by the CCME to address the industrial sector where emission reduction strategies for PM were developed. Batch plants such as the above project 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. More information on the CCME initiatives and the joint initial actions for the hot mix asphalt sector can be found at [http://www.ccme.ca/initiatives/standards.html?category\\_id=61](http://www.ccme.ca/initiatives/standards.html?category_id=61).

- EC acknowledges the proponent's use of a baghouse as an emission control measure. Although concrete batch plant is not specifically referred to in the following document, EC however, recommends 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\\_merap\\_e.pdf](http://www.ccme.ca/assets/pdf/hot_mix_asphalt_final_merap_e.pdf)
- The proponent should also be aware that concrete batch plants are required to report under National Pollutant Release Inventory.

### **Disposition**

Clauses 8 – 25 of the draft Environment Act Licence address air emissions

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

The following comments were received:

The proposed location of the concrete batch plant is located along PR 305. If PR 305 will be utilized as direct access, the proponent should be informed that any new, modified or relocated access connections onto PR 305 will require a permit from Manitoba Infrastructure and Transportation (MIT), including changed use in access. A permit will also be required for any construction (above or below ground level) within 38.1 m (125 ft) or for any plantings within 15.2 m (50 ft) from the edge of right-of-way PR 305.

### **Disposition:**

These comments were forwarded to the proponent for their information.

### **Manitoba Science, Technology, Energy and Mines – Energy, Climate Change & Green Strategy Initiatives**

No concerns

### **Disposition:**

No action needed.

### **Manitoba Culture, Heritage and Tourism – Historic Resources Branch**

The following comment was provided:

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 – Sustainable Resource & Policy Management Branch**

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:

- The potential sources of air pollution are the cement silo, aggregate storage pile, the conveyor system, vehicle traffic areas and material handling.
- The cement silo will be provided with baghouse dust collectors. The operation of the plant will adhere to the Best Environmental Management Practices (BEMP) for Redi-Mix Concrete Plants document prepared by the Manitoba Heavy Construction Association and the Canadian Ready Mixed Concrete Association's Environmental Management Practices for Ready Mixed Concrete operations in Canada. Provided that the dust collectors were appropriately operated and maintained, and the BEMP guidelines are followed, it is expected that concerns regarding air pollution will be addressed.
- Although there is a potential to generate noise, it is expected not to impact any residence considering its location inside an industrial park.

Disposition:

No action needed.

## **Manitoba Water Stewardship**

The following comments were provided:

Fisheries Branch has reviewed this request to construct a concrete batch plant in Ste. Agathe at the Riel Industrial Park. This site is relatively close to the Red River so there is a concern for the potential for contaminants to enter the River via the storm sewers or perhaps road side ditches. The proponents however have indicated that:

- chemicals are within a secondary containment basin with a concrete floor;
- there is a designated washout area with an adjacent wash water reclaim area;
- reclaimed wash water is recycled and reused;
- site grading is such that all water from concrete production as well as storm water that may come into contact with batching materials will drain to washout/reclaim areas and;
- all other uncontaminated storm or flood waters do not enter the ponds but are directed to storm sewers.

Given these measures, and the fact that the site is within the Town's ring dyke, any fisheries concerns appear to be addressed.

### **Disposition:**

No action needed.

### **PUBLIC HEARING:**

A public hearing is not recommended.

### **RECOMMENDATION:**

The Proponent should be issued a Licence for the construction and operation of a concrete batch plant 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.

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