

## **SUMMARY OF COMMENTS/RECOMMENDATIONS**

**PROPONENT:** Cyr Construction 1998 Ltd.  
**PROPOSAL NAME:** Concrete Batch Plant  
**CLASS OF DEVELOPMENT:** 1  
**TYPE OF DEVELOPMENT:** Concrete Batch Plant  
**CLIENT FILE NO.:** 5523.00

### **OVERVIEW:**

On May 4, 2011, Manitoba Conservation received a Proposal for the construction and operation of a concrete batch plant at locations throughout Manitoba. The facility will produce ready mix concrete for use in remote areas.

The Department, on May 17, 2011, 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 Winnipeg Free Press on May 21, 2011. The newspaper and TAC notifications invited responses until June 21, 2011.

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

There were no comments received from the public.

#### **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 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/air/default.asp?lang=Em&n=B02E25FD-1>
- 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/assets/pdf/hot\\_mix\\_asphalt\\_final\\_meraf\\_e.pdf](http://www.ccme.ca/assets/pdf/hot_mix_asphalt_final_meraf_e.pdf)
- EC acknowledges the proponent's proposed mitigation to reduce the emission of PM. 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\\_meraf\\_e.pdf](http://www.ccme.ca/assets/pdf/hot_mix_asphalt_final_meraf_e.pdf)
- The proponent should also be aware that temporary (mobile or portable) concrete batch plants are required to report under National Pollutant Release Inventory.

## Disposition

Clauses 11 - 26 of the draft Environment Act Licence address air emissions.

## **Department of Fisheries and Oceans**

The following additional information was requested:

- Where do they get their water from?
- How much water is used?
- Are there pumps involved (in waterways)?
- How do they deal with discharge of wash out water to prevent it from getting into waterways?

*The proponent provided the following response:*

- *The portable plant is set up in a gravel pit located approximately 1 km from the Wanipigow river and we are pumping water from an excavation in the gravel pit that was created by blasting and excavating (in the past) for the production of gravel.*
- *We are producing 700 m<sup>3</sup> of concrete and each m<sup>3</sup> uses 148 kg of water (148 kg = 148 L) for a total of 103,600 L. We also use 136 L of water for every 28 m<sup>3</sup> of concrete we produce for washing out for a total of 3,400 L. Grand total of 107,000 L over a period of approximately 4 months.*
- *Wash out water is being placed in a small excavation in the gravel pit which is approximately 1 km from the nearest waterway. The concrete mixer trucks leave the bridge site and return to gravel pit where they wash out after every fourth load of concrete.*
- *At future sites the Department of Fisheries and Oceans Freshwater Intake End-of-Pipe Fish Screen Guidelines will be followed.*

## Disposition

The proponent's response addressed the concerns raised. Clause 29 of the draft Environment Act Licence addresses wastewater.

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

No concerns.

## Disposition:

No action needed.

**Manitoba Conservation - Manitoba Conservation – Sustainable Resource & Policy Management Branch**

The following comments were provided:

Protected areas are lands closed to logging, mining, hydro-electric development and any other activities that could adversely or significantly affect habitat. The current network of protected areas is not complete, and the Protected Areas Initiative (PAI) is currently conducting planning exercises in various areas of the province. Some of the activities listed in the application could harm ecologically sensitive environments. To ensure that any concrete batch plant activity does not pose a hazard to protected lands, or lands proposed for protection, we recommend that:

- Any licence that may be issued should be conditional that no portable concrete batch plant will be set-up or operated prior to Manitoba Conservation reviewing and approving the specific site location(s) proposed for the plant.
- The list of proposed specific site locations should be forwarded to the Director, Sustainable Resource and Policy Management Branch for review by Manitoba Conservation.

**Disposition**

Clauses 9 and 10 of the draft Environment Act Licence address operating locations.

**Manitoba Conservation – Wildlife & Ecosystem Protection Branch**

No concerns.

**Disposition**

No action needed.

**Manitoba Conservation – Parks and Natural Areas Branch**

The following comments were provided:

- The Branch recommends that all proposed locations, when known, are forwarded to Manitoba Conservation for review and approval;
- The Branch recommends that the following conditions be incorporated into the Environment Act Licence:
  - No concrete batch plant without a pollution control device is to be operated within 3 km of any developed area of a provincial park (hiking trails, canoe routes, campgrounds etc.) to reduce disturbance to park visitors.

- No concrete batch plant is to be operated adjacent to an ecological reserve or protected area within a provincial park to maintain the ecological integrity of these sites.

### Disposition

Clauses 9 and 10 of the draft Environment Act Licence address operating locations. Clause 17 prohibits operation of the concrete batch plant without pollution control equipment.

### **Manitoba Conservation – Air Quality Management**

The following comments were provided:

- The proposal adequately addressed the potential sources of air pollution which are the cement silo, aggregate storage pile, the conveyor system, vehicle traffic areas and material handling/storage.
- It is suggested that the operation 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.
- Although there is a potential to generate noise specifically the crushing operation, it is expected not to be significant considering the absence of residences and the limited industrial and commercial use in the immediate vicinity.

### Disposition:

No action needed.

### **Manitoba Water Stewardship**

The following comments were provided:

- Manitoba Water Stewardship requires an *Environment Act* Licence to include the following:
  - The Licencee must not release any excess cement and/or wastewater to surface waters, including wetlands.
  - Any containment area must not be connected to or drain to any surface waters, including wetlands.
  - Any wastewater generated on site must be contained within the construction site.
  - Any concrete batch plant must be located at least 100 metres away from any surface water, including wetlands.
  - In order to protect riparian areas, establish and maintain an undisturbed native vegetation area located upslope from the



practices such as eliminating fertilizer use adjacent to surface waters, and the proper management and disposal of waste water, maintaining an undisturbed native vegetation adjacent to waterbodies is important to help prevent degradation of water quality.

- The Manitoba Department of Water Stewardship's recent policy direction recommending undisturbed native vegetation areas to protect water is founded, in part, on the 135 recommendations in the Lake Winnipeg Stewardship Board's (December 2006) report titled, "Reducing Nutrient Loading to Lake Winnipeg and its Watershed, Our Collective Responsibility and Commitment to Action." All 135 recommendations were accepted in principle by the Minister of the Manitoba Department of Water Stewardship, on behalf of the Government of Manitoba.
- The proponent needs to be informed of the following for information purposes:
  - Erosion and sediment control measures should be implemented until all of the sites have stabilized.
  - *The Water Rights Act* requires a person to obtain a valid licence to control water or construct, establish or maintain any "water control works." "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, a person is required to submit an application for a Water Rights Licence to Construct Water Control Works. A person may contact the following Water Resource Officer to obtain an application and/or obtain information.
    - A contact person is Mr. Geoff Reimer C.E.T., Senior Water Resource Officer, Water Control Works and Drainage Licensing, Manitoba Water Stewardship, Box 4558, Stonewall, Manitoba R0C 2Z0, telephone: (204) 467-4450, email: [geoff.reimer@gov.mb.ca](mailto:geoff.reimer@gov.mb.ca).
- The Manitoba Department of Water Stewardship is mandated to ensure the sustainable development of Manitoba's water resources. Manitoba Water Stewardship is committed to the goals of: protecting aquatic ecosystem health; ensuring drinking water is safe and clean for human health; managing water-related risks for

human security; and stewarding the societal and economic values of our waterways, lakes and wetlands; for the best water for all life and lasting prosperity. Manitoba Water Stewardship achieves these goals, in part, through administering legislation, including *The Water Protection Act*, *The Water Rights Act*, and *The Water Power Act*.

Disposition:

The proponent has been made aware of these existing legislative requirements. Clauses 9 and 10 of the draft Environment Act Licence address location, clause 29 addresses wastewater, and clauses 30 and 31 address emergencies.

**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 Environmental Operations Branch of Manitoba Conservation.

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

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