

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Miller Paving Ltd.
PROPOSAL NAME: Concrete Batch Plant
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Concrete Batch Plant
CLIENT FILE NO.: 5529.00

OVERVIEW:

On May 24, 2011, Manitoba Conservation received a Proposal for the construction and operation of a concrete batch plant at locations throughout Manitoba. The first operating location will be adjacent to the northwest corner of the intersection of Saskatchewan Avenue and the Perimeter Highway, where the plant will supply concrete for use in the CentrePort Canada Way Transportation Corridor project.

The Department, on June 9, 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 June 11, 2011. The newspaper and TAC notifications invited responses until July 11, 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_{2.5}) 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)
- 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): PM₁₀, 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
- EC acknowledges the proponent's use of a baghouse dust collector as a proposed mitigation measure 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 (MERAFA) 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
- 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.

Manitoba Local Government – Community & Regional Planning Branch

No concerns.

Disposition

No action needed.

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

The following comments were provided:

- If the proposed project requires access to Provincial Trunk Highway (PTH) 101, the proponent should be informed that any new, modified or relocated access connection onto PTH 101 will require a permit from the Highway Traffic Board. The proponent may contact Ms. Michelle Slotin at (204) 945-6794.
- If the proposed project requires access to Provincial Road (PR) 425, the proponent should be informed that, under the Highways and Transportation Protection Act, any new, modified or relocated access connection onto a PR will require a permit from Manitoba infrastructure and Transportation (including changed use in access). A permit may also be required for any construction (above or below ground level) within 38.1 m (135 ft) or for any plantings within 15.2 m (50 ft) from the edge of the right of way of PR 425. The proponent may contact Mr. Kevin Nimchuk at (294) 945-0324.

Disposition:

This information is provided to the proponent by way of this summary report. No further action needed.

Manitoba Conservation – Land Programs Branch

No concerns.

Disposition

No action needed.

Manitoba Conservation – Climate Change and Green Strategy Initiatives

The following comments were provided:

The proposed portable concrete plant uses diesel to fuel a generator to mix the cement with aggregate and water on-site, as opposed to having cement mixing trucks deliver the mix from a permanent plant.

Based on limited information, there are basically three sources of GHG emissions associated with the making of concrete. They are:

Source 1: CO2 derived from decarbonation of limestone (CaCO3)

Source 2: CO2 from kiln combustion

Source 3: CO2 produced by vehicles in cement plants and distribution of the wet concrete mix

The last source or Source 3 contributes, on a relative basis, almost an insignificant amount of CO2 (estimated to be well below 1%) of the overall GHGs associated with the production of cement. The GHGs associated with the proposed portable plant are Source 3 emissions and as such, do not add up to a significant CO2e contribution.

Disposition

No action needed.

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 – Parks and Natural Areas Branch

No concerns.

Disposition

No action needed.

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Manitoba Conservation – Air Quality Management

The following comments were provided:

- The potential sources of air pollution are the cement silo, aggregate storage pile, the conveyor system, central mixer, vehicle traffic areas, material handling and the diesel engine generator set. The cement silo will be provided with a dust collector containing filter bags. The central mixer will also be provided with a dust collector. Provided that the dust collectors and generator set were appropriately operated and maintained, and the submitted BMP for Fugitive Dust Control and the EMP for CentrePort Canada Way Project are followed, it is expected that any potential concerns regarding air pollution will be addressed.
- Although there is a potential to generate noise, it is expected not to impact any residence.
- Since the proposed facility is a portable concrete batching plant, it is expected that an approval will be required for every change in location of the facility.

Disposition:

Clauses 15-19 of the draft Environment Act Licence address air pollution control equipment, clause 5 addresses compliance with best management practices (BMP), and clauses 9 and 10 address change in location.

Manitoba Water Stewardship

The following comments were provided:

- Manitoba Water Stewardship requires an *Environment Act Licence* to include the following:
 - The Licencee must install backflow protection devices when a public water system is directly connected to the proposed development, in compliance with The Manitoba Plumbing Code.
 - 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 ordinary high water mark and adjacent to all waterbodies and waterways connected to the provincial surface water network:
 - A 30-metre undisturbed native vegetation area is required for lands located adjacent to surface waters;

- The Licencee shall comply with Manitoba Water Stewardship's Wetland Policy:
 - The net loss of semi-permanent or permanent wetlands shall not occur. Wetlands are defined as areas that are periodically or permanently inundated by surface or ground water long enough to develop special characteristics including persistent water, low-oxygen soils, and vegetation adapted to wetland conditions. These include but are not limited to swamps, sloughs, potholes, marshes, bogs and fens.
 - A licensee shall establish and maintain an undisturbed native vegetation area with at least a 30-metre width.
 - The Licencee shall develop and implement an Emergency Response Plan, including the following:
 - Upon a spill of wastewater entering surface waters, the proponent shall immediately contact the public water system operator, located downstream.
- Manitoba Water Stewardship submits the following comments:
 - Manitoba Water Stewardship does not object to this proposal, at this time.
 - Maintaining an undisturbed native vegetation area immediately adjacent to the shoreline of lakes, rivers, creeks, and streams helps stabilize banks, provides aquatic and wildlife habitat and protects water quality through filtering overland runoff. The width of an undisturbed native vegetation area should be the widest width possible and practical. In conjunction with other best management 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.

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.

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