

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Transcontinental Printing 2005.
PROPOSAL NAME: Transcontinental Printing – LGM Graphics
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Manufacturing -
CLIENT FILE NO.: 5082.10

OVERVIEW:

Manitoba Conservation and Water Stewardship received a Proposal on May 29, 2014 for the major alteration to expand the printing operation by upgrading the press units and pollution control equipment for the facility located at 737 Moray Street in Winnipeg, Manitoba. The facility produces web and sheet fed press printing of magazines, catalogues and commercial brochures.

The Department, on July 11, 2014, 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/5082.1transcontinental/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 July 12, 2014. The newspaper and TAC notifications invited responses until August 14, 2014.

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 – Compliance and Enforcement Branch

The Environmental Compliance and Enforcement Branch of Manitoba Conservation and Water Stewardship has reviewed the above noted proposal and would like to provide the following comment:

- *Proponent should provide an updated project schedule following approval of their proposal.*

Disposition

Claus 3 of the draft Environment Act Licence addresses a requirement to submit an updated schedule of the project

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:

- *The proposal provides only total annual VOC emissions from the printing press. It is recommended that details and assumptions on the VOC emissions calculations be submitted. It is also suggested that the proponent comply with the CCME Environmental Code of Practice for the reduction of VOC Emissions from the Commercial/Industrial Printing Industry for calculating and controlling VOC emissions from the facility.*
- *Although the source of VOC emissions are identified in the proposal, no speciation is provided, hence it is suggested that the VOC is characterized to identify the specific VOCs. This is important in order to identify the presence of VOCs listed under the Priority Substances List (PSL) of the Canadian Environmental Protection Act 1999 (CEPA 1999).*
- *There is no information provided regarding emission rates and predicted ambient concentrations. As the nearest residential area is ~200 meters away from the plant, it may be necessary to have these data to provide a meaningful assessment on the potential impacts to air quality. (Air dispersion modeling of the emissions may be necessary to estimate the potential ambient air concentrations in the facility's area of influence.)*
- *Air Quality Section recommends that the standard odour nuisance clause be included in the Licence.*

Proponent Response (October 23, 2014)

Response to first comment:

The VOC emissions were calculated using an MS Excel® workbook originally developed by ÉEM inc. in 2002 specifically for Transcontinental Inc. The tool has been used by

Transcontinental's printing facilities across the country for the purpose of reporting to the federal *National Pollutant Release Inventory* (NPRI). The emission calculations and their underlying assumptions were developed using the CCME Code of Practice, although more recent emissions factors used in the tool are based on US Environmental Protection Agency guidelines and are referenced in the file under the «References» tab.

Note that the data entered has been revised since our first application submission subsequent to a misunderstanding regarding changes in ink consumptions that were to occur in May 2014 and a typographical error discovered in one inks VOC concentration. A copy of the MS Excel® workbook tabs are provided in Appendix B (*This document is posted at registries*).

The original calculation projected annual VOC emissions to be on the order of 11 metric tonnes. Current projected VOC emissions, based on the revised projected ink, solvent/wash, fountain solution and natural gas consumptions would be on the order of 16 metric tonnes per year. For comparative purposes, the facility's NPRI declarations for VOC emissions for the previous 5 years have been the following:

2013: 15 mt
2012: 16 mt
2011: 14 mt
2010 : 18 mt
2009: 15 mt

According to the *Environmental Code of Practice for the Reduction of Volatile Organic Compound Emissions from the Commercial/Industrial Printing Industry* (August 1999), section 4.1, VOC emissions should be limited to the greater of the two rates corresponding to the following 2 options:

- A VOC emission limit of no more than 25 metric tonnes per calendar year; or,
- The allowable fraction of the baseline uncontrolled VOC amount for the facility, determined pursuant to section 4.2 of the Code.

Given that LGM's allowable fraction of baseline uncontrolled VOCs corresponds to 8 metric tonnes based on the projected consumption figures (refer to Appendix B), LGM's VOC emission performance target corresponds to 25 metric tonnes according to the CCME Code of Practice. Note that the projected annual VOC emissions for LGM are 9 metric tonnes below this value and have consistently been below 25 metric tonnes since at least 2006 according to annual NPRI declarations for the facility.

With regards to controlling VOC emissions, LGM applies several controls including:

- Use of manual press cleaning solvents having a low photo-chemical reactivity (Varn 313 blue, Varn 324);
- Use of an automated cleaning system on the M1000 press line. With automated cleaning, a substrate impregnated with a dosed amount of solvent passes through the press. This results in reduced solvent use and allows the regenerative thermal oxidizer to be in use during the cleaning cycle;
- Use of vegetable based inks;

- Directing of press line emissions to a regenerative thermal oxidizer unit with a 96% VOC destruction efficiency;
- Dispensing of cleaning solvents using manual pumps in order to minimize fugitive emissions;
- Storage of solvents in bench-cans with lids at work station; and,
- Storage of soiled cleaning rags in closed-top containers to minimize fugitive emissions.

A copy of Transcontinental’s best practices guidelines are included in Appendix D (*This document is posted at registries*).

Response to second comment:

The principle products used by LGM are listed in Table 1. Material safety data sheets for each product are provided in Appendix E (*This document is posted at registries*). VOC containing products are indicated in the table as are products that contain substances that appear on the *Federal Priority Substances List*. Note that MSDS nos. 1 to 13 that were submitted with the original proposal are no longer used by the facility. Substances 33 to 37 are new inks that are used.

Table 1 : VOC containing products used by LGM

MSDS	Product type	Product name	Manufacturer	VOC	FPSL
33	Ink	FTCN273090 Yellow	Flint	Y	Aluminum sulfate 0.2% 1
34	Ink	BI19200387 Yellow	Sun Chemical	Y	N
35	Ink	BI19501184 Cyan	Sun Chemical	Y	N
37	Ink	BI19900249 Black	Sun Chemical	Y	N
13	Ink	FTCN204400 Black	Flint	Y	N
14	Ink	FTCN224400 Cyan	Flint	Y	N
15	Ink	FTCN244400 Magenta	Flint	Y	N
16	Ink	FTCN274400 Yellow	Flint	Y	N
17	Ink	FTCN203090 Black	Flint	Y	N
18	Ink	FTCN223090 Cyan	Flint	Y	N
19	Ink	FTCN243090 Magenta	Flint	Y	N
20	Solvent	V-313 blue	Varn	Y	Xylenes 0.23%
21	Solvent	V-324	Varn	Y	N
22	Solvent	Saphira PW-3207A	Nova Heidleburg	Y	N
23	Solvent	Prepac autowash	Baldwin	Y	N
26	Solvent	Rubber rejuvenator	United chemical service	Y	N
24	Fountain solution	Emerald premium KDHP	Fuji	Y	Ethylene glycol 0.1-1%
25	Fountain solution	Emerald premium MXEH-M	Fuji	Y	Ethylene glycol 0-1%
27	Ink tack control	200-383 NC 400 Flash oil	Sun Chemical	N	N
28	Pre-press chemical	Silicone emulsion DVQ	Fuji	N	N
29	Pre-press chemical	LP-DZ news developer	Fuji	N	N
30	Pre-press	LP-DZ news	Fuji	N	N

	chemical	Developer replenisher			
31	Pre-press chemical	MetaAid CA10 neutralizer	Metafix	N	N
32	Pre-press chemical	PS plate finisher gum	Fuji	N	N

Response to third comment:

Facility emission rates and ambient concentrations are expected to be virtually unchanged from those prior to facility modification. Note that the facility has received no complaints related to air emissions or odours since at least 2006.

We hope that the responses provided adequately address the concerns raised by the Technical Advisory Committee member. Please feel free to contact us at your convenience if you have any further questions or comments.

Air Quality Section Comments (December 3, 2014)

Air Quality Section has reviewed the additional submissions and provides the following comments:

- *Based on the submissions (detailed VOC emission calculation and supplementary information regarding used chemicals), the facility's total annual VOC emissions are within the CCME limits. (Provided that the emission calculations and their underlying assumptions is in compliance with the CCME Code of Practice)*
- *No information was provided regarding emission rates and predicted ambient VOC concentrations but an air dispersion modeling for the facility may not be necessary at this time. However, it is suggested that air dispersion modeling is included as one of the License conditions, the timing of the conduct of such is at the discretion of the Director.*

Thank you for the opportunity to review.

Disposition

Claus 10 of the draft Environment Act Licence addresses issues on odour nuisance. Clauses 24 and 25 of the draft Environment Act Licence address the requirement for a refined air dispersion modeling.

Manitoba Conservation and Water Stewardship – Wildlife Branch

No Concerns

Manitoba Conservation and Water Stewardship – Parks and Protected Spaces Branch

Parks and Protected Spaces Branch has reviewed the proposal submitted pursuant to the Environment Act for Request for review/comment - EAP - Transcontinental Printing - File: 5082.10. The Branch has no comments or concerns to offer as it does not affect any provincial parks, park reserves, ecological reserves, areas of special interest or proposed protected areas.

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 Quality Management Section

No Response.

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 Concerns.

Manitoba Conservation and Water Stewardship – Water Control Works Licensing Section

No Concerns.

Manitoba Conservation and Water Stewardship– Climate Green Initiative Branch

No Response.

Manitoba Municipal Government – Community Planning Services Branch

No Response.

Manitoba Culture, Heritage and Tourism – Heritage Branch

No Response.

Manitoba Municipal Government – Energy Division

No Response.

Manitoba Municipal Government – 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

No Comments.

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 printing 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 major alteration to expand the printing operation 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:

Eshetu Beshada, Ph.D., P. Eng.
Environmental Engineer
Mines and Wastewater Section

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