

Licence No.: 2325

Licence Issued: April 28, 1998

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)
THIS LICENCE IS ISSUED PURSUANT TO SECTION 10(1) TO:**

**W.R. GRACE & CO. OF CANADA LTD. doing business as
GRACE CONSTRUCTION PRODUCTS; "the Licencee"**

for the operation of the Development being a perlite and vermiculite manufacturing, and a concrete additive mixing facility, located at 1140 Pacific Avenue in Parcel D Plan 26962 WLTO in The City of Winnipeg, in accordance with the Proposal submitted on February 11, 1998, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"accredited laboratory" means facilities accredited by the Standard Council of Canada (SCC), or facilities accredited by another accrediting agency recognized by Manitoba Environment to be equivalent to the SCC, or facilities which can demonstrate to Manitoba Environment, upon request, that quality assurance/quality control (QA/QC) procedures are in place equivalent to accreditation based on the Canadian Standard Can/CSA-Z753, extension of the international standard ISO 9000, Guide 25;

"affected area" means a geographical area, excluding the property of the Development;

"Director" means an employee so designated pursuant to The Environment Act;

"Environment Officer" means an employee so designated pursuant to The Environment Act;

"noise nuisance" means an unwanted sound, in an affected area, which is annoying, troublesome, or disagreeable to a person:

- a. residing in an affected area;
- b. working in an affected area; or
- c. present at a location in an affected area which is normally open to the members of the public;

if the unwanted sound

- d. is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director, and within a 90 day period, from 5 different persons falling within clauses a), b), or c), who do not live in the same household;

"odour nuisance" means a continuous or repeated odour, smell or aroma, in an affected area, which is offensive, obnoxious, troublesome, annoying, unpleasant, or disagreeable to a person:

- a. residing in an affected area;
- b. working in an affected area; or
- c. present at a location in an affected area which is normally open to the members of the public;

if the odour, smell or aroma

- d. is the subject of at least 5 written complaints, received by the Director in a form satisfactory to the Director, and within a 90 day period, from 5 different persons falling within clauses a), b), or c), who do not live in the same household;

"opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background;

"particulate matter" means any finely divided liquid or solid matter other than water droplets;

"particulate residue" means that part or portion of an atmospheric emission which is deposited onto a surface;

"point source" means any point of emission from the Development where pollutants are emitted to the atmosphere by means of a stack;

"stack" means a duct, pipe, chimney, vent, opening or other structure through which pollutants are emitted to the atmosphere; and

"wastewater" means any liquid containing a pollutant as defined in The Environment Act, associated with or resulting from the Development which is discharged into the environment.

GENERAL TERMS AND CONDITIONS

This Section of the Licence contains requirements intended to provide guidance to the Licencee in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

1. The Licencee shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the Development, at all times.
2. The Licencee shall reduce the production and dissemination of wastes by initiating and maintaining waste reduction and waste recycling programs.
3. The Licencee shall, upon the request of the Director and in addition to any of the limits, terms or conditions specified in this Licence:
 - a. sample, monitor, analyze and/or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants or ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, for such duration and at such frequencies as may be specified;
 - b. determine the environmental impact associated with the release of any pollutants from the said Development; or
 - c. provide the Director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used, bioassay data, flow rate measurements and such other information as may from time to time be requested.
4. The Licencee shall, unless otherwise specified in this Licence:
 - a. carry out all sampling of, and preservation and analyses on, water, soil or air samples in accordance with methodologies approved by the Director;
 - b. ensure that all analytical determinations are undertaken by an accredited laboratory; and
 - c. report the results to the Director within 60 days of the samples being taken.
5. The Licencee shall provide to the Director, upon request, all information required under this Licence, in writing and in such form and content (including number of copies), as may be specified by the Director.

LIMITS, TERMS AND CONDITIONS

6. The Licencee shall operate the perlite and vermiculite ore storage silo(s) and any conveyance apparatus used for the ores, such that:
 - a. spilled ore does not accumulate at the Development; and
 - b. ore is not deposited beyond the property boundaries of the Development.

Respecting Air Emissions

7. The Licencee shall not emit from the Development:
 - a) particulate matter in any air emission that:
 - i. exceeds 0.23 grams per dry standard cubic metre calculated at 25 degrees Celsius and 760 millimetres of mercury, corrected to 12 percent carbon dioxide for processes involving combustion, from any point source of the Development;
 - ii. exhibits a visible plume with an opacity of greater than 5 percent at any point beyond the property line of the Development; or
 - iii. results in the deposition of visible particulate residue at any time beyond the property line of the Development; or
 - b) particulate matter from any point source with an opacity that equals or exceeds:
 - i. 20 percent as the average of any 24 consecutive opacity observations taken at 15 second intervals;
 - ii. 20 percent for more than 16 individual opacity observations within any 1 hour period; or
 - iii. 40 percent for any individual opacity observation.
8. The Licencee shall not cause or permit a noise nuisance to be created as a result of the operation or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.
9. The Licencee shall not cause or permit an odour nuisance to be created as a result of the operation or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate an odour nuisance.

Respecting Air Pollution Control Equipment

10. The Licencee shall not operate the vermiculite or perlite ore exfoliation process or product bagging apparatus unless the emissions from these processes:
 - a. are directed to a fully operational air pollution control device(s); and
 - b. after being directed to the air pollution control device(s) are in compliance with the specifications, limits, terms and conditions of this Licence.
11. The Licencee shall maintain a log book for all maintenance activities and all downtimes of the air pollution control devices. The log book shall be kept at the Development and shall be available upon request for inspection by an Environment Officer. The log shall record, at minimum, the following:
 - a. identification of the unit and the process it serves;
 - b. time/date of log entry;
 - c. nature of event;
 - d. time and duration of event;
 - e. the accumulated downtime for these events for each calendar year; and
 - f. signature of employee/manager.

Respecting Air Emission Sampling and Analysis

12. The Licencee shall, at the written request of the Director, construct a stack or stacks for the sampling of emissions at the Development which are:
 - a. at a location(s);
 - b. completed within a time frame; and
 - c. to the specifications;

stipulated by the Director.

13. The Licencee shall, at the written request of and in a manner satisfactory to the Director, install stack-sampling facilities at any or all stack or stacks discharging from any process at the Development.
14. The Licencee shall submit, within 60 days of the Director's written request, a proposal which is acceptable to the Director for the characterization, sampling and analysis of emissions from any process at the Development.
15. The Licencee shall complete the sampling of emissions requested in Clause 14 of this Licence in accordance with the approved proposal.
16. The Licencee shall submit to the Director within 90 days of receipt of the analytical results of the sampling performed per Clause 15 of this Licence, a report that discusses the characterization, sampling and analysis project and the results of that project. This report shall address any potential health or environmental impacts beyond the boundaries of the Development that might be caused by the emissions studied.

Respecting Storage and Handling of Concrete Additives

17. The Licencee shall store and handle all liquid components of the concrete liquid additive mixtures and all finished liquid additive products only in an area constructed to contain and prevent the release of any spill or leakage of liquids. The storage and handling area must have a containment capacity not less than 110% of the nominal storage volume of the single largest storage vessel in the containment area.

Respecting Wastewater

18. The Licencee shall not discharge wastewater beyond the property boundaries of the Development except for that wastewater which meets the effluent quality criteria of the municipality and is discharged to the municipal sewer system.

Respecting Solid Waste

19. The Licencee shall dispose of all solid waste generated from any activity at the Development in a manner acceptable to the Director.

Respecting Emergency Planning

20. The Licencee shall submit to the Director for approval, within 30 days of the date of this Licence, a contingency plan, in accordance with National Standard of Canada CAN/CSA-Z731-95 Emergency Planning for Industry, outlining procedures to be used in the event of a leak, spill, fire, or other hazardous condition at the Development.

REVIEW AND REVOCATION

- A. If, in the opinion of the Director, the Licencee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out in this Licence, the Director may, temporarily or permanently, revoke this Licence.
- B. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 10 of The Environment Act.

"original signed by"

Larry Strachan, P. Eng.
Director
Environment Act

Client File No.: 4301.00

