

Licence No.: 2522

Licence Issued: October 23, 2001

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

MILLENNIUM CYLINDER TECHNOLOGIES LTD.; "the Licencee"

for the construction and operation of the Development being a manufacturing facility to recondition cylinder bores, located in Lot 2 Plan 19654 Pt. SE ¼ 10-13-2 EPM in the Rural Municipality of Rockwood, in accordance with the Proposal filed on August 8, 2001, 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 Conservation to be equivalent to the SCC, or facilities which can demonstrate to Manitoba Conservation, 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;

"approved" means approved by the Director in writing;

"dangerous good" means any product, substance or organism designated in the regulations, or conforming with the criteria set out in the regulations, or in any regulation adopted in accordance with The Dangerous Goods Handling and Transportation Act, and includes hazardous wastes;

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

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

"hazardous waste" means any substance or group of substances so designated by the regulations, or conforming to criteria set out in the regulations;

"noise nuisance" means a continuous or repeated noise 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 noise

- 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; or
- e. is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses a), b), or c), and the Director is of the opinion that if the unwanted sound had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90 day period from 5 different persons 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; or
- e. is the subject of at least one written complaint, received by the Director in a form satisfactory to the Director, from a person falling within clauses a), b), or c), and the Director is of the opinion that if the unwanted odour, smell of aroma had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90 day period from 5 different persons 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;

"QA/QC" means quality analysis/quality control;

"sanitary wastewater" means human body, toilet, liquid, waterborne culinary, sink or laundry waste;

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

"Standard Methods for the Examination of Water and Wastewater" means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation; 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 preservations and analyses on liquid samples in accordance with the methods prescribed in the most current edition of Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies approved by the Director;
 - b. carry out all sampling of, and preservation and analyses on, soil and air samples in accordance with methodologies approved by the Director;
 - c. ensure that all analytical determinations are undertaken by an accredited laboratory; and
 - d. 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

Respecting Air Emissions – Limits

6. 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.
7. The Licencee shall not cause or permit a noise nuisance to be created as a result of the construction, operation, or alteration of the Development, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance.
8. The Licencee shall not cause or permit an odour nuisance to be created as a result of the construction, 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 Emissions – Sampling, Analysis, Reporting

9. The Licencee, upon written request from the Director, shall provide a stack or stacks including all necessary sampling facilities for the sampling of air emissions at the Development. The stack or stacks shall be provided:
 - a. at a location(s) and within a time frame satisfactory to the Director; and
 - b. to the specifications and in accordance with the most recent version of Manitoba Conservation Guideline, *Guideline for Stack Sampling Facilities*, unless otherwise approved by the Director.
10. The Licencee, upon written request from the Director, shall submit a detailed plan which is acceptable to and approved by the Director, for the sampling and analysis of potential air pollutants, released as stationary point and fugitive emissions, including any compounds determined by the Director. The plan shall identify the rationale for the sampling; the ways and means by which the sampling program will be implemented including any special measures or methods which would be necessitated by influencing factors such as unfavourable weather conditions, the need for large or additional sample volumes, the need for multiple sampling runs, etc.; the methods used for the sampling and the analysis for each compound; the detection level to be attained; a comprehensive QA/QC program, and other items as may be identified by the Director.
11. The Licencee shall perform all stack sampling in accordance with the most recent version of Manitoba Conservation Report No. 96-07, *Interim Stack Sampling Performance Protocol*, unless otherwise approved by the Director.
12. The Licencee shall arrange the scheduling of the sampling program submitted pursuant to Clause 10 of this Licence such that a representative of Manitoba Conservation is available to monitor and audit the implementation of the sampling program.
13. The Licencee shall complete the sampling of emissions according to the approved plan submitted pursuant to Clause 10 of this Licence, within a timeframe to be determined by the Director.
14. The Licencee shall submit a report, for the approval of the Director, of the completed sampling and analysis plan approved pursuant to Clause 10 of this Licence, within 60 days of the receipt of the analytical results of that sampling plan. The report shall contain at minimum:
 - a. the raw data collected;
 - b. a discussion of the sampling and analytical portions of the program including any anomalies of sampling and analysis; and
 - c. a discussion of the significance of the data gathered with specific attention to:
 - i. the significance for potential acute and chronic impacts to health or environment from exposure to concentrations of the compounds detected;
 - ii. the need for risk assessment of the impact of emissions;
 - iii. the need for the establishment of ambient air monitoring stations;
 - iv. the need for dispersion modelling of emissions;
 - v. results and conclusions of the QA/QC program; and
 - vi. other issues as may be determined by the Director.
15. The Licencee, upon the written request of and in a timeframe stipulated by the Director, shall comply with any air emission or ambient air quality criteria specified by the Director for any pollutant of concern to the Director which has been identified pursuant to Clauses 3 or 14 of this Licence.

Respecting Air Pollution Control Equipment

16. The Licencee shall not operate any process which has the potential to emit, or to originate the emission of, airborne pollutants from the Development, in such concentrations that may be of concern to the Director unless:

- a. all emissions of concern have been directed to a fully operational air pollution control device(s) which eliminates or reduces, by means of appropriate treatment, the concentration of pollutant(s) such that the treated emissions:
 - i. are in compliance with any limit stipulated in this Licence or any other applicable legal instrument including an Act, Regulation or by-law;
 - ii. are in compliance with any limit that might be stipulated for the Development by the Director at a future date; or
 - iii. do not create a significant health or environmental impact beyond the boundaries of the Development;
 - b. all treated emissions from the air pollution control device(s) are immediately directed to and discharged from a stack which meets the conditions as stipulated in this Licence; and
 - c. a Standard Operating Procedure manual for the operation and maintenance of the air handling and air pollution control equipment is submitted to and approved by the Director.
17. The Licencee shall maintain a log book of the most recent 24 months of downtimes of any air pollution control equipment due to either the breakdown or maintenance of any air pollution control equipment. The log book shall be kept at the Development and shall be available upon request for inspection by an Environment Officer. The log book shall record, at minimum, the following information:
- a. identification of the unit and the process(s) it serves;
 - b. time/date of log entry;
 - c. nature of event;
 - d. duration of event;
 - e. the accumulated downtime of this equipment for the events for each calendar year; and
 - f. signature of employee or manager.
18. The Licencee shall handle, store and dispose of all pollutants collected by the air pollution control equipment in a manner suitable to their characterization as type of waste or dangerous good.

Respecting Ambient Air Quality

19. The Licencee shall not emit any one or more of the following pollutants from any part or process of the Development such that the concentration of any pollutant, when measured by a method approved by the Director and at any point of reception beyond the property line of the Development, exceeds the following limits:

Pollutant	Period of Measurement	Limit
Hydrogen chloride	Yearly average	7.0 µg/m ³
Hydrogen chloride	One (1) hour average	100.0 µg/m ³
Sulphuric acid mist	One (1) hour average	100.0 µg/m ³
Fluorides as (HF)	24 hour average	0.85 µg/m ³
Fluorides as (HF)	7 day average	0.55 µg/m ³
Fluorides as (HF)	30 day average	0.35 µg/m ³
Fluorides as (HF)	70 day average	0.20 µg/m ³
Nickel	½ hour average	5.0 µg/m ³
Nickel	24 hour average	2.0 µg/m ³
Nitric Acid	½ hour average	100.0 µg/m ³

Nitric Acid

24 hour average

35.0 $\mu\text{g}/\text{m}^3$

Respecting Restriction of Materials Containing Chromium Compounds

20. The Licencee shall not receive, store, handle, apply or otherwise use materials containing chromium or chromium compounds at the Development.

Respecting Chemical Storage, Handling and Use

21. The Licencee shall comply with all the applicable requirements of:
 - a. Manitoba Regulation 97/88R, or any future amendment thereof, respecting the storage and handling of gasoline and associated products; and
 - b. the Manitoba Dangerous Goods Handling and Transportation Act, and regulations issued thereunder, respecting the handling, transport, storage and disposal of any dangerous goods brought onto or generated at the Development.
22. The Licencee shall grade, surface and dike or curb all areas where chemicals are stored, loaded, transferred or otherwise handled or used in a manner and using appropriate impermeable materials approved by the Director, such that all product spillage and contaminated run-off water from these areas is contained within the Development and contamination of groundwater is prevented.
23. The Licencee shall provide containment within any diked or curbed liquid chemical storage area for a volume of liquid equal to:
 - a. 110% of the volume of the largest storage tank located therein; and
 - b. the effective displacement volume of all other tanks and structures located therein.
24. The Licencee shall maintain the containment area volume capacity in Clause 23 of this Licence by the immediate removal and disposal, in a manner approved by the Director, of all accumulated fluids.
25. The Licencee shall contain and immediately remediate any chemical spills.

Wastewater/Sludge Collection, Treatment, Sampling, Analysis and Disposal

26. The Licencee shall not discharge wastewater beyond the property boundaries of the Development and shall prevent the seepage of wastewater such that the groundwater beneath the Development does not become contaminated.
27. The Licencee shall collect all wastewaters and sludges including but not limited to rinses, spent solutions, backwashes, drag-outs, scrubber washes, etc. which are generated by any processes associated with the facility, and:
 - a. treat such wastewaters and sludges, where necessary, by means of an on-site treatment system prior to off-site disposal such that all acceptance criteria of that off-site disposal system are complied with; or
 - b. dispose of the wastewaters and sludges according to the provisions of The Dangerous Goods Handling and Transportation Act, C.C.S.M., c. D12.
28. The Licencee shall take representative samples of all wastewaters and sludge, excepting sanitary wastewater, generated at the Development and which are to be removed from the Development, prior to their removal.
29. The Licencee shall have each sample collected pursuant to Clause 28 of this Licence, analysed, prior to removal, by a laboratory approved by the Director and using methods approved by the Director for the following

pollutants: aluminum; nickel; copper; total sulphide; fluoride; pH and other compounds as may be specified by the Director.

30. The Licencee shall determine the classification of wastewater and sludge pursuant to Clause 27 b) and Clause 29 of this Licence, and shall dispose of the wastewater and sludge in a manner acceptable to an Environment Officer.
31. The Licencee shall submit a copy of all sampling report(s) complete with analytical results pursuant to Clause 29 of this Licence, to the Director within sixty (60) days of the completion of the sampling program.
32. The Licencee shall discharge only sanitary wastewater to a registered private sewage disposal system or approved holding tank.

Respecting Record Keeping

33. The Licencee shall compile, maintain and keep onsite and available for inspection by an Environment Officer, monthly records containing data from the latest 24 month period including:
 - a. volume and mass per week of sludge produced at the Development; and
 - b. volume per week of wastewater produced at the Development.
34. The Licencee shall have the monthly data prepared in Clause 33 of this Licence, available for review not later than 15 days from that month's end.
35. The Licencee shall submit reports of the monthly data prepared in Clause 33 of this Licence, upon request of the Director.

Respecting Solid Waste

36. The Licencee shall dispose of all solid waste generated from any activity at the Development in a manner acceptable to an Environment Officer.

Respecting Emergency Response Planning

37. The Licencee shall submit to the Director for approval, prior to operation of the Development, a contingency plan, in accordance with the Manitoba Industrial Accidents Council (MIAC) *Industrial Emergency Response Planning Guide*, 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.: 4660.00

