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

MONSANTO CANADA INC.; "the Licencee"

for the construction and operation of the Development being a dry granular herbicide manufacturing/formulating facility, including all related activities, to be located at Lot 2 SP Plan 2069 MLTO in the S 1/2 of Section 5-3-5 WPM in the Town of Morden and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"appreciable impulsive character" means sound which has a significant amount of impulsive or impact nature, such as hammering, explosions and clanking or banging. Impulsive or impact sounds are sounds of short duration, usually less than one second, characterized by an abrupt onset followed by a rapid decay;

"A-weighted sound level" means the sound level measured in dBA units with a sound level meter set on the A-weighting network, being a filter designed to approximate the relative sensitivity of the normal human ear to different frequencies of sound;

"dB" (decibel) means a dimensionless measure of sound level or sound pressure level, where,

\[
\text{sound level} = 20 \log_{10} \left( \frac{\text{sound pressure (actual)}}{\text{sound pressure (reference)}} \right);
\]

"chemical products" includes but is not limited to pesticides but excludes petroleum products used in the operation of machinery;

"4 minute period(s) in the aggregate" means any 16 readings, not necessarily contiguous, taken at 15 second intervals within a 1 hour sampling period;

"L_{eq} (energy equivalent level)" means the A-weighted sound level (as decibels (dBA)) of a constant or steady sound, for a stated period, which has an amount of acoustic energy equivalent to that contained in the sound being measured;

"L_{eq}(1)" means the L_{eq} for a one hour period;

"opacity" means the degree to which emissions, excluding water vapour, reduces 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 a Development where pollutants are ducted into the atmosphere;

"predominant discrete tone" means sound (for example a whine or hum) having a one-third octave band sound level which, when measured in a one-third octave band, exceeds the arithmetic average of the sound levels of the two adjacent one-third octave bands on either side of such one-third octave band by:

i) 5 dB for such one-third octave band with a center frequency from 500 Hertz to 20,000 Hertz, inclusive, provided such one-third octave band sound level exceeds the sound level of each adjacent one-third octave band; or

ii) 8 dB for such one-third octave band with a center frequency from 160 Hertz to 400 Hertz, inclusive, provided such one-third octave band sound level exceeds the sound level of each adjacent one-third octave band; or

iii) 15 dB for such one-third octave band with a center frequency from 25 Hertz to 125 Hertz, inclusive, provided such one-third octave band sound level exceeds the sound level of each adjacent one-third octave band; and

"sewage" means human body, toilet, liquid, waterborne culinary, sink or laundry waste.

**GENERAL SPECIFICATIONS**

1. The Licencee shall comply with the current edition of the Crop Protection Institute of Canada's warehousing standards regarding the handling and storage of crop protection chemicals, and with any applicable federal or provincial regulations.

2. The Licencee shall ensure that a high standard of equipment maintenance and good housekeeping and operational practices are carried out with respect to the Development, at all times.

3. The Licencee shall submit, at least ninety (90) days prior to plant start-up, an emergency response contingency plan to be approved by the Director and local fire authorities. This plan must include, but is not limited to, items which will address: measures implemented for spill prevention and containment; security; personnel training; fire and other response arrangements.

4. The Licencee shall ensure that an automatic system for fire detection and security is installed and maintained.

5. The Licencee shall install and maintain an automatic fire extinguishing system throughout the Development.

6. The Licencee shall reduce the production and dissemination of wastes by initiating and maintaining waste reduction and waste recycling programs.
LIMITS, TERMS AND CONDITIONS

I - LIQUID EMISSIONS

7. The Licencee shall not discharge any liquid beyond the property line of the Development as a result of:
   i) any on-site chemical spill;
   ii) wastewater generated from any response action due to onsite release of chemicals; or
   iii) contaminated water resulting from fire extinguishing.

8. The Licencee shall ensure that no spillage, contaminated run-off or pollutant is directed to a sewage disposal system.

9. The Licencee shall establish and maintain a minimum of two monitoring wells around areas where chemical products are stored, loaded, blended, transferred or otherwise handled such that the ground water may be sampled. The location and the construction specifications of these wells is to be approved by the Director.

10. The Licencee shall install the monitoring wells referred to in Clause 9 of this Licence, and submit to the Director a copy of the well logs at least ninety (90) days prior to plant start-up.

11. The Licencee shall sample each well referred to in Clause 9 of this Licence once each year between April 15 and October 15.

12. The Licencee shall have each collected sample analyzed by a laboratory using methods approved by the Director for the following parameters:
   i) glyphosate, N-(phosphonomethyl) glycine, in the form of its monoammonium salt;
   ii) oxyalkylated alkylamine surfactants; and
   iii) any other products that may be specified by the Director.

13. The Licencee shall submit copies of the analytical results completed in Clause 12 of this Licence, to the Director within 60 days of the samples having been submitted for analysis.

II - AIR EMISSIONS

14. The Licencee shall not emit particulate matter from the Development such that:
   i) particulate matter:
      a) 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; or
      b) exhibits a visible plume with an opacity of greater than 5 percent at any point beyond the property line of the Development; or
      c) results in the deposition of visible particulate residue at any time beyond the property line of the Development; or
   ii) opacity from any point source of the Development shall equal or exceed:
      a) 20 percent for a 4 minute period(s) in the aggregate in any one hour; or
      b) 40 percent at any time.
15. The Licencee shall not emit sound from any part or process of the Development, such that any emission when measured at a point of reception within an area which is zoned as residential, exceeds the following $\{L_{eq}(1)\}$ limits:
   i) subject to sub-Clause 6 (ii):
      a) 60 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time; or
      b) 50 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time; or
   ii) when the sound has an appreciable impulsive or impact character or a predominant discrete tone:
      a) 55 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time; or
      b) 45 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time.

16. The Licencee shall not emit sound from any part or process of the Development, such that any emission when measured at a point of reception within an area which is zoned as commercial, exceeds the following $\{L_{eq}(1)\}$ limits:
   i) 70 dBA during the daytime hours of 7:00 a.m. to 10:00 p.m., local time; or
   ii) 60 dBA during the nighttime hours of 10:00 p.m. to 7:00 a.m., local time.

17. The Licencee shall not emit sound from any part or process of the Development, such that any emission when measured at a point of reception, beyond the property line of the Development and within an area which is zoned as industrial, exceeds 70 dBA at any time.

18. The Licencee shall not emit odour from any part or process of the Development such that any emission is detectable when measured at a point of reception:
   i) within an area which is zoned as residential or commercial when one volume of odorous air is diluted with one equal volume of odour-free air; or
   ii) within an area which is zoned as industrial when one volume of odorous air is diluted with six equal volumes of odour-free air.

**III - CHEMICAL STORAGE AND HANDLING**

19. The Licencee shall ensure that all concrete floors and curbs are constructed in such a manner and are maintained in good repair so as to prevent spilled liquids from leaking down into the soil.

20. The Licencee shall ensure that any chemical spills are contained and cleaned up immediately to prevent soil contamination and reduce possibility of surface run off into ground and/or surface waters.

21. The Licencee shall maintain a current duplicate inventory of all chemical materials stored at the Development and keep one copy at the Development, and the other copy at a location off-site.

22. The Licencee shall surface, both in a manner and using materials approved by the Director, all areas of the Development where chemical products are stored, loaded, blended, transferred or otherwise handled.
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IV - STORAGE LOCATION

23. The Licencee shall locate the Development a minimum distance of:
   i) 100 meters from any property zoned residential.

24. This Licence replaces Environment Act Licence No. 1654 which is hereby rescinded.

REVOCATION

If in the opinion of the Director the Licencee has exceeded, or is exceeding any of the specifications, limits, terms or conditions set out herein, the Director may revoke, temporarily or permanently, this Licence.

Larry Strachan, P. Eng.
Director
Environment Act

Client File No.: 3562.00