

Licence No.: 2481

Licence Issued: October 18, 2000

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)
THIS LICENCE IS ISSUED PURSUANT TO SECTION 11(1) TO:**

SUN GRO HORTICULTURE CANADA LTD.; "the Licencee"

for the construction and operation of the Development, being a peat or peat moss mine comprised of and associated with:

- road improvements to an existing 3.9 kilometre East Forestry Road northerly off PTH 15 through parts of Sections 4, 5 and 8, Township 11, Range 10 EPM, up to the turn-off to the bog mine site;
- a new 4.2 kilometre access/haulage road from the East Forestry Road through parts of Sections 8 and 17, Township 11, Range 10 EPM, and parts of Sections 13, 18, and 24, Township 11, Range 9 EPM to the mine site operational area;
- a peat or peat moss mine site located in the Julius Lake South Bog on Crown Land on parts of Sections 23, 24, and 25, Township 11, Range 9 EPM, as well as on privately owned land on parts of the S 1/2 of Section 26, Township 11, Range 9 EPM;
- a 2.6 hectare staging area (base site) located on the NW1/4 of Section 18, Township 11, Range 10 EPM; and
- a 3.9 kilometre drainage outlet ditch leading north and then west from the peat mining area through parts of Sections 26, 27, 28, 34 and 35, Township 11, Range 9 EPM;

in accordance with the Proposal dated February 21, 2000, filed with the Department under The Environment Act on February 24, 2000, together with subsequent Proposal clarifications and amendments dated April 26, 2000, May 30, 2000, June 23, 2000 and July 7, 2000, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence,

"accredited laboratory" means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation to be equivalent to the SCC, or able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the Canadian Standard Can/CSA-Z753, extension of the international standard ISO 9000, Guide 25, or otherwise approved by the Director;

"approved" means approved by the Director in writing;

"dangerous goods" means dangerous goods as defined in the Manitoba Dangerous Goods Handling and Transportation Act, and regulations issued thereunder;

"Director" means an employee of the department appointed as such by the Minister;

"drainage water" means surface or sub-surface water induced, by reason of constructed drains or pumps, to drain towards the final discharge point of the Development;

"effluent" means drainage water or wastewater released into the environment;

"final discharge point" means an effluent quality control point as designated within this Licence, unless otherwise re-designated in writing by the Director;

"fugitive emissions" means suspended particulate matter windblown into the atmosphere and off-site from any source on-site of the Development;

"mined peat bog area" means that area of the peat bog authorized by this Licence for peat mining, the periphery of which is marked by the outer edge of the outer most extent of disturbance caused by the construction of a perimeter ditch, a perimeter dyke or a perimeter road;

"peat or peat moss" means the moderate to heavily decomposed organic matter of dead vegetation found primarily in the fens and bogs of wetland environments, that has accumulated in varying depths by depositional means over a long period of time;

"peat mining" means the excavation, harvesting or removal of peat or peat moss for commercial purposes;

"reclamation" means the activity which focuses on the after-use of mined peatland sites;

"restoration" means the re-establishment of a mined peatland site as a peatland with a functioning natural ecosystem with characteristics as close as possible to pre-mining conditions;

"septage" means the sludge produced in individual on-site sewage disposal systems such as septic tanks;

"sewage" means sewage as defined in Manitoba Regulation 95/88R, or any future amendment thereto, respecting private sewage disposal systems and privies;

"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) which is designated for release 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. In addition to any of the limits, terms and conditions specified in this Licence, the Licencee shall, upon the request of the Director:
 - 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 pollutant(s) from the 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.
2. The Licencee shall, unless otherwise specified in this Licence:
 - a. carry out all preservations and analyses of liquid samples in accordance with the methods prescribed in the Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies approved by the Director; and
 - b. ensure that all analytical determinations are undertaken by an accredited laboratory.
3. The Licencee shall report all the information requested through the provisions of this Licence in a manner and

form acceptable to the Director.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Respecting the Pre-Development Phase

4. The Licencee shall, before commencing any induced drainage, or clearing the surface of the site of the Development, and even during the undertaking of such activities:
 - a. transplant any visible rare, endangered or threatened species of vegetation which may be encountered on the site, to another equally suitable site in consultation with the Eastern Regional Wildlife Manager; and
 - b. upon the completion of any transplantation activity, advise the Director, in writing, of the type and number of any plant species so transplanted and the location to which they were transplanted.

Respecting Access Road Construction

5. The Licencee shall:
 - a. restrict the construction of the proposed road between the staging area and the site of the Julius Lake South Bog to within the period of the date of issuance of this Licence to March 31, 2001, unless otherwise approved by the Director;
 - b. leave and maintain a 250 metre buffer between the northerly edge of the access road right-of way and the location of the heron rookery identified on Appendix 'B' attached to this Licence; and
 - c. not create any new borrow pit(s) for the construction of the access/haulage road and the upgrading of the east forestry fire road without prior consultation with, and the written concurrence of, the Eastern Regional natural resources staff of the Department of Conservation.

Respecting Land Use and Operational Activities

6. The Licencee shall restrict construction and operational activities related to the Development to only those lands to which the Licencee possesses:
 - a. surface rights or complete ownership or a signed agreement with another person or legal entity respecting the use of any land to which that person or legal entity possesses the surface rights or complete ownership, wherein the agreement clearly identifies the party which accepts full responsibility for any environmental liabilities incurred by the activities of the Licencee; or
 - b. all applicable work permits and timber cutting permits, as may be required by law, prior to the initiation of any works or disturbance on Crown land.
7. The Licencee shall restrict all mining of peat or peat moss at the site of the Development to only those deposits located within:
 - a. the boundaries as described in the Quarry Leases listed in Schedule 'C' and shown on Appendix 'B' attached to this Licence;
 - b. the boundaries of the privately owned land and mineral rights located on the south half of Section 26, Township 11, Range 9 EPM; and
 - c. the boundaries as described in any future acquired Quarry Lease(s) of which the Director has been notified in writing, and has approved as an alteration to the licenced Development.
8. The Licencee shall, where practical, avoid draining and preparing any portion of the Development too soon in advance of its needs.
9. The Licencee shall design and construct the bog drainage system to ensure that the original water or groundwater level can be restored in the bog in the post-mining period.

10. The Licencee shall leave a buffer zone of original vegetation and peat beyond the periphery of the mined peat bog area within the Quarry Lease areas, whereby the buffer zone is comprised of undisturbed in-situ vegetation and peat having a minimum depth of 50 centimetres and a minimum width of 100 metres, except where the minimum width can be demonstrated to an Environment Officer as being impractical to achieve.
11. The Licencee shall implement progressive restoration of mined out areas of the bog, and encourage the progressive restoration with appropriate water level controls and the transplanting of appropriate vegetation from undisturbed areas of the Development in a manner consistent with such a Closure Plan as approved by the Director of the Mines Branch.
12. The Licencee shall ensure that at least a 1.0 metre layer of in-situ peat remains intact throughout the bottom of the mined peat bog upon completion of the mining activities unless evidence provided by the Licencee, and satisfactory to the Director and the Eastern Region Integrated Resource Management Team of the Department of Conservation, suggests that a residual depth of less than 1.0 metre but greater than 0.5 metres will not adversely affect the effluent quality leaving the Development, nor compromise the optimum regrowth rate of vegetation or otherwise adversely affect the reclamation objective of restoring the mined out bog area to a functioning wetland that may eventually succeed to a sphagnum bog.

Respecting Wildlife Habitat

13. The Licencee shall ensure that, where any wildlife habitat losses have been identified by the Department of Conservation, the Eastern Regional wildlife staff of the Department of Conservation are consulted with respect to mitigation of the losses, and that the agreed upon mitigation measures are carried out to the satisfaction of the Director.

Respecting Drainage and Liquid Discharges

14. The Licencee shall not construct any engineered drains associated with the Development, nor release any drainage water from the Development, without the prior receipt of a Drainage Permit from the Water Resources Branch of the Department of Conservation.
15. The Licencee shall:
 - a. before commencing any drainage at the Development, place a series of five piezometers at distances of approximately 20, 40, 60, 80 and 100 metres from the edge of the site to be drained, and at two separate locations acceptable to the Director, along a line parallel to the direction of the flow of groundwater into the site of the Development being drained; and
 - b. whereupon evidence indicates that the zone of measurable groundwater drawdown extends beyond the 100 metre mark, place additional piezometers at such distances as may be specified in writing by the Director.
16. The Licencee shall:
 - a. prevent, as much as practical, natural surface runoff water from outside the boundaries of the Development from migrating into the active area of the Development by diverting such runoff water around the perimeter of the Development;
 - b. direct all drainage water associated with the Development through one or more sedimentation ponds that are designed and constructed to achieve the effluent quality criteria as specified in this Licence;
 - c. direct all drainage water from the sedimentation pond(s) to the final discharge point identified in Appendix 'C' attached to this Licence; and
 - d. release all effluent from the Development only through the final discharge point.
17. The Licencee shall ensure that the final discharge point, identified in Appendix 'C' attached to this Licence, is:

- a. designed and constructed so as to facilitate the termination, if necessary, of the release of any effluent from the Development; and
- b. designed and equipped with a manual flow rate measuring device, satisfactory to the Director, and adequate to measure the full range of instantaneous rates of discharge as may be expected to be released into the environment.

18. The Licencee shall not release any effluent from the Development where the release of the effluent would:

- a. cause a downstream flooding condition; or
- b. contribute to a possible or forecast downstream flooding condition; or
- c. further aggravate a downstream flooding condition prevailing at that time;

along the receiving downstream drainage route or the Brokenhead River.

19. The Licencee shall not release any effluent from the Development if the quality of the effluent, as determined from the analysis of any grab sample taken of the effluent, is such that:

- a. the pH is less than 5.0 pH units;
- b. the pH of the effluent is causing, or contributing to, the pH of the receiving water at monitoring station 'D', as shown in Appendix 'A' attached to this Licence, to fall below the lesser of 6.5 pH units or the prevailing pH of the receiving stream at monitoring station 'C'; or
- c. the suspended solids concentration is greater than 30 milligrams per litre.

20. The Licencee shall:

- a. comply with Manitoba Regulation 95/88R, or any future amendment thereto, in regards to any sewage generated at the Development; and
- b. ensure that any sewage and septage transported off-site from the Development is disposed of only into a facility which has an Environment Act Licence or Environment Act Permit authorizing the acceptance of sewage and septage.

Respecting Solid Wastes

21. The Licencee shall not deposit solid waste, as defined in Manitoba Regulation 150/91 respecting waste disposal grounds, into the environment except into a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 150/91, or any future amendment thereto, where the operator of that facility has agreed to accept the solid waste from the Development.

Respecting Recyclable Wastes

22. The Licencee shall not deposit bulky metallic wastes, used tires, used oil or other fluid lubricants, hydraulic fluids, or any other class of recyclable waste substances as may be specified by the Director, into the environment except into:

- a. a facility or infrastructure which accepts such materials for recycling, or
- b. a waste disposal ground operating under the authority of an operating permit issued pursuant to Manitoba Regulation 150/91 or any future amendment thereto, where these recyclable substances are kept segregated from each other and are not buried (unless otherwise specified by the Director) so as to facilitate their future recycling.

Respecting Dangerous Goods or Hazardous Wastes

23. The Licencee shall not store any gasoline and associated products, dangerous goods or hazardous wastes at, or in the immediate vicinity of, the peat bog mine site of the Development.

24. The Licencee shall comply with all the applicable requirements of:
- a. Manitoba Regulation 97/88R, or any future amendment thereto, 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.

Respecting Contingency Plans and Emergency Response Plans

25. The Licencee shall:
- a. within two months of the date of issuance of this Licence, submit to the Director, for approval, a proposed Emergency Response Plan, consistent with the departmental "Industrial Emergency Response Planning Guide (MIAC, September, 1996)" to address such matters as fire suppression and control, and cleaning up spills involving dangerous goods (hazardous chemicals, gasoline, etc.); and
 - b. continually maintain the approved Emergency Response Plan in a current status for the duration of the Development.

Respecting Operational Monitoring, Record Keeping and Reporting

26. The Licencee shall, throughout the draining and mining of the site of the Development, but only under conditions of effluent release:
- a. once per week, collect samples of the effluent at the final discharge point, and have them analyzed at such frequencies as specified in Schedule 'A' attached to this Licence, for such substances and characteristics as specified in Schedule 'B' attached to this Licence;
 - b. once per week, measure and record the flow rate (in cubic metres per second) of effluent being released from the Development, and use the weekly flow rate measurements to determine an estimate of the total monthly volumes (expressed in cubic metres) of effluent released from the Development; and
 - c. collect representative samples of the waters in the streams at Stations 'B', 'C' and 'D' at such frequencies as specified in Schedule 'A' attached to this Licence, and have the samples analyzed for such substances and characteristics as specified in Schedule 'B' attached to this Licence;

unless otherwise specified in writing by the Director.

27. The Licencee shall, throughout the draining and mining of the site of the Development, measure the elevation of the water table in the installed piezometers, as well as at a representative reference location the drainage ditches at the Development, in accordance with the frequency specified in Schedule 'A' attached to this Licence for such duration until otherwise specified by the Director.
28. The Licencee shall submit to the Director the analytical data, and flow rate measurements and monthly estimates, and water table elevation data determined and recorded in accordance with Clauses 26 and 27 of this Licence by no later than 30 days following the end of the month in which the samples and measurements were taken.
29. The Licencee shall submit an annual summary of all the analytical values, measurements and estimates determined and recorded pursuant to Clauses 26 and 27 of this Licence, to the Director, in writing and in an electronic format acceptable to the Director, no later than February 28th of each year for the preceding year's data.

Respecting Decommissioning, Reclamation and Restoration

30. The Licencee shall:

- a. comply with Manitoba Regulation 67/99, or any future amendment thereto, issued under The Mines and Minerals Act, respecting closure plans for mining developments, particularly in regards to addressing environmental issues including, but not necessarily limited to:
 - i. the implementation of any progressive restoration of those peat bog areas of the Development where mining has reached its terminal depth;
 - ii. the decommissioning of any temporary fuel storage site used at or for the Development.
 - iii. the decommissioning of access roads, stream crossings and power lines constructed for the Development;
 - iv. the decommissioning, reclamation and restoration of the overall affected operational area of the Development;
 - v. the restoration or replacement of wildlife or fish habitats disturbed, adversely affected or lost as a result of the Development;
 - vi. the containment, control or treatment of pollutants originating from the mine site of the Development; and
 - vii. the strategy, scope, frequency and duration of post-closure environmental monitoring activities at the mine site;

where applicable;

- b. provide the Director with:
 - i. written notice three months in advance of any imminent permanent closure of this Development; or
 - ii. an immediate written notice of any sudden decision to temporarily close this Development whereby the Development would be placed in a mothballed state for re-opening in the foreseeable future; and
- c. in the course of progressive rehabilitation, as well as upon the permanent or temporary closure of this Development, implement the environmentally related aspects of the Closure Plan approved pursuant to Manitoba Regulation 67/99, or any future amendment thereto, to the satisfaction of the Director.

REVIEW OR 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 the Licencee has not commenced construction of the Development within three years of the date of this Licence, this Licence is revoked.
- C. 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 11 of The Environment Act.

"original signed by"

Larry Strachan, P. Eng.

Director

Environment Act

Client File No.: 4505.00

APPENDIX 'A' (Area Map and Sampling Stations)

Refer to File Copy

APPENDIX 'B' (Location Plan & Quarry Leases)

Refer to File Copy

APPENDIX 'C' (Sedimentation Ponds & Final Discharge Point)

Refer to File Copy

SCHEDULE 'A' (Sampling Requirements)

Area	Source	Location	Sampling Frequency *	Determinations or Analyses
Julius L. South Bog	final effluent	Station 'A' (see Appendix 'C')	weekly & 3x/year	See Schedule 'B'
overland drainage route	drainage water	Station 'B' (see Appendix 'A')	3x/year	See Schedule 'B'
Brokenhead R.	upstream river water	Station 'C' (see Appendix 'A')	3x/year	See Schedule 'B'
Brokenhead R.	downstream river water	Station 'D' (see Appendix 'A')	3x/year	See Schedule 'B'

* "weekly" means once every seven days, but on an operating day.

"3x/year" means once every spring freshette, mid-summer and late fall.

Note: The Director reserves the right to make future alterations to this Schedule in the interests of efficient management of the environment.

SCHEDULE 'B' (Required Determinations and Analyses)

Parameters / Characteristics / Data	Sampling Stations			
	Station 'A' (weekly)	Stations 'A', 'B', 'C' & 'D'		Wells (3x/Year)
		(3x/Year)	(1x/Year)	
Sampling Date	X	X	X	X
Piezometric Water Table Elevation				X
Flow Rate	X			
pH	X	X		
Total Alkalinity		X		
Acidity		X		
Conductivity		X		
Total Dissolved Solids		X		
Total Suspended Solids	X	X		
5-day Biochemical Oxygen Demand		X		
Calcium		X		

Magnesium		X		
Hardness		X		
Total Phosphorus (as P)		X		
Total Kjeldahl Nitrogen		X		
Total Ammonia (as N)		X		
Nitrate + Nitrite (as N)		X		
Manganese		X		
Sulphates (as S)		X		
Total Aluminum		X		
Total Iron		X		
Total Zinc		X		
Total Chromium		X		
Total Nickel		X		
Total Cadmium		X		
Total Lead		X		
Complete Heavy Metals			X	

"weekly" means once every seven days, but on an operating day.

"3x/year" means once every spring freshette, mid-summer and late fall.

"1x/year" means once every mid-summer (i.e. at the same time that the 3x/year mid-summer sample is taken).

Note: The Director reserves the right to make future alterations to this Schedule in the interests of efficient management of the environment.

SCHEDULE 'C' (List of peat mining sites associated with this Development)

PEAT MINING SITES	TOTAL SITE AREA (Ha)	PROPOSED DISTURBANCE (Ha)	PROPERTY OWNERSHIP
QL-485	64.75	55.56	Crown Land
QL-590	4.05	4.05	Crown Land
QL-591	48.56	48.27	Crown Land
QL-592	40.47	24.89	Crown Land
QL-1040	32.38	3.69	Crown Land
QL-1041	8.09	1.01	Crown Land
QL-1042	42.90	31.32	Crown Land
QL-1528	40.96	12.48	Crown Land
QL-1529	16.19	2.68	Crown Land
S 1/2-26-11-09EPM	129.50	66.42	Private Land*
Total Area =	427.85	250.35	

*Ownership of land includes mineral rights.