



**Conservation and Water Stewardship**

Environmental Stewardship Division  
Environmental Approvals Branch  
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**CLIENT FILE NO.: 4655.00**

October 20, 2015

Femi Ferreira, Environmental Manager  
Simplot Canada (II) Limited  
Box 1180  
Portage la Prairie MB R1N 3J9

Dear Mr. Ferreira:

Enclosed is **Environment Act Licence No. 2518 R8** dated October 20, 2015 issued to **Simplot Canada (II) Limited** for the construction and operation of the Development being a potato processing plant and process wastewater pre-treatment facility located on Lots 40 and 41 in the Parish of Portage la Prairie in the Poplar Bluff Agricultural Industrial Park in the Rural Municipality of Portage la Prairie and in accordance with the Proposal filed under *The Environment Act* on July 26, 2001, and the Notices of Alteration dated August 19, 2002, July 23, 2009, November 17, 2010, August 21, 2012 and July 15, 2015.

In addition to the enclosed Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with. A Notice of Alteration must be filed with the Director for approval prior to any alteration to the Development as licensed.

For further information on the administration and application of the Licence, please feel free to contact Tyler Kneeshaw, Environment Officer at 204-239-608.

Pursuant to Section 27 of *The Environment Act*, this licensing decision may be appealed by any person who is affected by the issuance of the Licence to the Minister of Conservation and Water Stewardship within 30 days of the date of the Licence.

Yours truly,

*“original signed by”*

Tracey Braun, M.Sc.  
Director  
Environment Act

c: Don Labossiere, Donna Smiley; Environmental Compliance and Enforcement  
Public Registries

**NOTE: Confirmation of Receipt of this Licence No. 2518 R8 (by the Licencee only) is required by the Director of Environmental Approvals. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by November 3, 2015.**

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On behalf of Simplot Canada (II) Limited

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Date

# LICENCE

Licence No. / Licence n°	<u>2518 R8</u>
Issue Date / Date de délivrance	<u>March 12, 2002</u>
Revised / Révisé:	<u>October 20, 2015*</u>

In accordance with *The Environment Act* (C.C.S.M. c. E125) /  
Conformément à la *Loi sur l'environnement* (C.P.L.M. c. E125)

Pursuant to Sections 10(1) and 14(2) / Conformément au Paragraphes 10(1) et 14(2)

THIS LICENCE IS ISSUED TO: / CETTE LICENCE EST DONNÉE À:

SIMPLOT CANADA (II) LIMITED,  
"the Licencee"

for the construction and operation of the Development being a potato processing plant and process wastewater pre-treatment facility located on Lots 40 and 41 in the Parish of Portage la Prairie in the Poplar Bluff Agricultural Industrial Park in the Rural Municipality of Portage la Prairie and in accordance with the Proposal filed under *The Environment Act* on July 26, 2001, and the Notices of Alteration dated August 19, 2002, July 23, 2009, November 17, 2010, August 21, 2012 and July 10, 2015 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 be able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the Director;

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

- \*Revised: September 25, 2002
- \*Revised: September 17, 2004
- \*Revised: August 29, 2006
- \*Revised: September 10, 2009
- \*Revised: October 19, 2009
- \*Revised: May 4, 2011
- \*Revised: October 19, 2012

**\*\*A COPY OF THE LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES\*\***

"**anaerobic digestion**" means the degradation of organic matter brought about through the action of microorganisms in the absence of elemental oxygen;

"**approved**" means approved by the Director in writing;

"**aquifer**" means a water saturated geologic unit that will yield water to wells or springs at a sufficient rate so that the wells or springs can serve as practical sources of water supply;

"**as constructed drawings**" means engineering drawings complete with all dimensions which indicate all features of the Development as it has actually been built;

"**ASAE**" means the American Society of Agricultural Engineers;

"**ASTM**" means the American Society for Testing and Materials;

"**biogas**" means combustible gas derived from the anaerobic digestion of organic materials containing primarily methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>);

"**biosolids**" means accumulated organic sludge solids, resulting from wastewater treatment processes, that have received adequate treatment to permit the material to be recycled;

"**blanch**" means to process by scalding or hot water;

"**cull potatoes**" means potatoes received at the potato processing plant that are not usable for processing into final product;

"**DAF**" means dissolved air flotation;

"**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*;

"**first order waterway**" means a drain or watercourse serving a watershed with a drainage area of up to one square mile;

"**flooding**" means the flowing of water onto lands, other than waterways, due to the overtopping of a waterway or waterways;

"**HDPE**" means high density polyethylene;

**"high water mark"** means the fluid level mark on the interior surface of the LRAR which is normally reached when the cell is at the maximum allowable liquid level;

**"hydraulic conductivity"** means the quantity of water that will flow through a unit cross-sectional area of a porous material per unit of time under a hydraulic gradient of 1.0;

**"industrial use agreement"** means an agreement to discharge industrial wastewater to municipal wastewater collection and treatment systems;

**"Industrial Services Agreement"** means the industrial use agreement between the City of Portage la Prairie, the Rural Municipality of Portage la Prairie, and the Licencee;

**"lift station"** means the lift station located in the Poplar Bluff Agricultural Industrial Park and which is owned by the Rural Municipality of Portage la Prairie and pumps wastewater to the WPCF;

**"LRAR"** means a low rate anaerobic reactor;

**"LSAF"** means the Poplar Bluff lift station and force main;

**"NIST"** means the National Institute of Standards and Technology;

**"NO<sub>x</sub>"** means oxides of nitrogen, and refers collectively to nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>) expressed as a nitrogen dioxide equivalent;

**"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 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, and 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 noise 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;

**"nubbins"** means small imperfect pieces of potatoes;

**"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 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, and 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 odour, smell or 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;

**"oily wastewater"** means wastewater from the fryer, packaging and freezer areas of the potato processing plant, including wastewater from the fryer exhaust emission control system;

**"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 portion of an atmospheric emission which is deposited onto a surface;

**"Phase I"** means the Development operating with one line of pre-formed products and one line of french fries, which will produce approximately 20 415 kg of potato products per hour;

**"Phase II"** means the Development operating as expanded by the addition of another production line;

**"plant-available nitrogen"** means nitrogen which is readily available to plants by uptake through the roots and is determined by adding a percentage (2% for soil residue & tare material, and 20% for biosolids) of the organic nitrogen (as nitrogen), 100 percent of the ammonia (as nitrogen) and 100 percent of the nitrate (as nitrogen);

**"PM<sub>10</sub>"** means airborne particles equal or less than 10 micrometres in diameter;

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

**"pollutant"** means a pollutant as defined by *The Environment Act*;

**"potato processing"** means the cleaning, the peeling, the cutting, the removal of defects, the blanching, the drying, the frying, the freezing and the packaging of potatoes, or any one of these activities;

**"potato processing facility"** means the potato processing plant, freezer warehouse, guard house and Manitoba Hydro electrical and gas infrastructure;

**"potato processing plant"** means the main processing plant structure;

**"process wastewater"** means water at the Development, excluding sanitary wastes, which has been used in any process or has in any manner become contaminated and includes liquid stored in the LRAR and leachate collected from the LRAR;

**"reference material"** means soil or sludge material which is used as a reference;

**"reference value"** means the value established by the agency that supplied the reference material;

**"sanitary wastes"** means sewage containing human body, toilet, liquid, waterborne culinary, sink or laundry waste;

**"second order waterway"** means a drain or watercourse servicing a watershed with a drainage area greater than one square mile or having a tributary or tributaries which are first order waterways;

**"significant"** means of important negative consequence as determined by an individual with demonstrated expertise, who is qualified to make such judgments;

**"sludge"** means accumulated solid material containing large amounts of entrained water, which has separated from wastewater during processing;

**"sludge solids"** means solids in sludge;

**"soil residues"** means receiving area wastes, excluding tare material, intended for land application and includes dry dirt and silt concentrate;

**"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;

**"sulphide oxidation facility"** means a reactor designed to provide biological and/or chemical oxidation of sulphide to sulphate in the LRAR effluent prior to entering the lift station;

**"tare material"** means rocks, potato vines and foreign material that accumulate in the raw receiving area;

**"waste"** means waste product of any kind or the run-off from such waste product and includes both liquid and solid material;

**"waste disposal ground"** means an area of land designated by a person, municipality, provincial government agency, or crown corporation for the disposal of waste and approved for use in accordance with *Manitoba Regulation 150/91* or a Licence under *The Environment Act*;

**"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;

**"water table"** means the upper surface of the zone of saturation of a water bearing geologic unit;

**"white water"** means water used to convey potatoes and potato pieces in the peeling, cutting, blanching and drying areas of the potato processing plant and contains starch, sugars and other dissolved and suspended potato solids; and

**"WPCF"** means the City of Portage la Prairie Water Pollution Control Facility.

## 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 following specifications, limits, terms and conditions specified in this Licence, the Licencee shall, upon the request of the Director:
  - a) sample, monitor, analyze or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, handling, treatment and disposal systems, for such pollutants, ambient quality, aquatic toxicity, seepage characteristics and discharge rates and for such duration and frequencies as may be specified;

- b) determine the environmental impact associated with the release of any pollutant from the Development; or
  - c) provide the Director within such time as may be specified, with such reports, drawings, specifications, analytical data, 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;
  - b) have all analytical determinations are undertaken by an accredited laboratory; and
  - c) report to the Director, in writing or in a format acceptable to the Director, within 60 days of the sample being taken.
3. The Licencee shall submit all information required to be provided to the Director under this Licence, in writing, in such form (including number of copies), and of such content as may be required by the Director.
4. The Licencee shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the Development, at all times.
5. The Licencee shall reduce the production and dissemination of wastes by initiating and maintaining waste reduction and waste recycling programs.
6. 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.
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 in case of physical or mechanical breakdown of the wastewater collection and/or treatment system, sludge treatment, handling, transportation and/or injection system, or any air pollution control equipment:
  - a) notify the Director immediately;
  - b) identify the required repairs; and
  - c) complete the repairs in accordance with the written instructions of the Director.



## **SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS**

### **Respecting Construction - General**

9. The Licencee shall submit to the Director, prior to the initiation of construction at the Development, two copies of each of the following:
- engineered construction drawings of the Development sealed by a professional engineer registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba, containing the proposed scaled site layout showing and identifying property boundaries, all existing buildings, roadways, storage areas, wells, fence lines, ponds, off-site drainage, wastewater discharge locations and other man-made structures; and
  - drawings and schematic diagrams identifying proposed processing equipment, air handling and air pollution control and treatment equipment, emission stacks, water supply, and wastewater collection and treatment systems.

All drawings shall be of sufficient size, but no smaller than 11" by 17", so as to clearly identify all features including textural descriptions.

10. The Licencee shall notify the assigned Environment Officer prior to beginning construction of the Development. The notification shall include the intended starting date of construction and the name of the contractor responsible for the construction.
11. The Licencee shall submit to the Director, within 90 days of the date of the initiation of potato processing at the Development, two copies and an electronic version in a format acceptable to the Director of each of the following:
- engineered as constructed drawings of the Development sealed by a professional engineer registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba, containing the existing scaled site layout showing and identifying property boundaries, all existing buildings, roadways, storage areas, wells, fence lines, ponds, off-site drainage wastewater discharge locations and other man-made structures; and
  - drawings and schematic diagrams identifying existing processing equipment, air handling and air pollution control and treatment equipment, emission stacks, water supply and wastewater collection systems.

All drawings shall be of sufficient size, but no smaller than 11" by 17", so as to clearly identify all features including textural descriptions.

12. The Licencee shall construct silt fences in the drainage routes transporting surface runoff off the property of the Development, and keep the silt fences maintained in a functioning manner until vegetation has been re-established on the disturbed areas.

**Respecting Construction - LRAR and Sulphide Oxidation Facility**

13. The Licencee shall submit to the Director:
  - a) detailed drawings of the double liner and the leakage detection and collection provisions proposed for the LRAR; and
  - b) a detailed description, prepared by a qualified professional, of the leakage detection and response strategy for the LRAR, describing:
    - i) the proposed type and location of monitoring provisions and instrumentation to be used;
    - ii) how the impervious integrity of the primary liner and the secondary liners will be assessed on an ongoing basis;
    - iii) how detected leakage losses will be handled;
    - iv) how detected leakage losses will be evaluated for their environmental risk; and
    - v) a contingency plan for correcting any leakage losses deemed by the Director to pose an unacceptable environmental risk.
14. The Licencee shall not commence the installation of the double liner in the LRAR until the Director has approved the leakage detection and response strategy.
15. The Licencee shall construct the LRAR and the sulphide oxidation facility such that the bottom elevation is at least one metre above the water table.
16. The Licencee shall, subject to Clause 14 of this Licence, install and maintain a continuous HDPE double liner on the interior surface of the LRAR and ensure that:
  - a) a copy of the liner type, installation and testing specifications for the project contract is submitted to the Director for approval, unless the final specifications do not differ from the specifications filed with the Director on July 17, 2001;
  - b) the HDPE double liner is installed in accordance with the specifications approved by the Director or in accordance with the ASAE Standard EP340.2 for the installation of Flexible Membrane Linings, whichever is the most stringent;
  - c) the inner primary liner has a minimum thickness of 1.5 mm (60 mil), and the outer secondary liner has a minimum thickness of 1.0 mm (40 mil);
  - d) each liner is free of holes and has a hydraulic conductivity not exceeding  $1.0 \times 10^{-9}$  centimetres per second over the entire surface area of each liner;
  - e) the primary and secondary liner are separated by a porous Geo-Net membrane in accordance with the specifications approved by the Director;
  - f) a gas relief system is installed under the primary liner as well as under the secondary liner in accordance with the specifications approved by the Director; and
  - g) each liner is tested for the integrity of all field seams in accordance with the specifications approved by the Director, and that a testing report, or any progressive testing report, is prepared and submitted to the Director for each liner, with:
    - i) the testing report or any progressive testing reports, on the secondary liner seams, submitted to the Director no less than two weeks before the secondary

- liner, or any tested portion thereof in the case of progressive testing, is overlain with the geonet material and the primary liner; and
- ii) the testing report or any progressive testing reports on the primary liner, submitted to the Director no later than two weeks after the seam testing on the primary liner, or any portion thereof in the case of progressive testing, has been completed.
17. The Licencee shall construct and maintain a sulphide oxidation facility such that:
- a) the facility is constructed using steel tank walls and concrete floor; and
  - b) the facility is constructed and maintained with corrosion protection.
18. The Licencee shall pressure test the integrity of the connections of any underground piping, which is intended to transport wastewater under pressure, before such pipe connections are backfilled with earth.
19. The Licencee shall install and maintain an insulated geomembrane cover on the LRAR and ensure that a copy of the cover type, installation and testing specifications is submitted to the Director for approval.

#### **Respecting Construction - Monitoring and Reporting**

20. The Licencee shall:
- a) ensure to have the activities associated with the construction of the Development inspected on a regular basis by a person qualified to:
    - i) inspect and report upon the degree of success to which the proposed environmental management practices are being carried out to minimize any adverse environmental impacts during the construction phase of the Development; and
    - ii) identify and report on potential problems which need to be corrected;
  - b) submit a summary report to the Director once every month until the construction phase of the Development is completed; and
  - c) inform the Director as soon as possible of any fuel spilled on the site of the Development.

#### **Respecting Surface Water Discharge**

21. The Licencee shall not discharge to the ground surface beyond the property boundaries of the Development any water which is polluted from contact with any material or process at the Development.
22. The Licencee shall not permit any pollutants to be directed into, or transported by, any surface drainage route leading off the property of the Development.

23. The Licencee shall:
- treat polluted storm water in an oil/water separator before release to the surface drainage system; or
  - direct polluted storm water to the LRAR.

### **Respecting Operation - General**

24. The Licencee shall revegetate surface areas on the property of the Development, affected by construction and re-contouring, in order to minimize or prevent soil erosion.
25. The Licencee shall erect and maintain warning signs, approved by Manitoba Transportation and Government Services, on Trans Canada Highway 1 to warn of the potential for fog and ice.
26. The Licencee shall not emit water vapor from the Development such that, at any point beyond the property boundaries of the Development, visibility is obscured or a negative impact is otherwise created, which causes or might cause a safety concern.
27. The Licencee shall monitor the Trans Canada Highway 1 adjacent to the Development to determine if water vapour emissions from the plant are affecting the surface of the roadway or visibility and submit a summary report to the Director on or before June 1 of each year. The summary report shall include the following:
- a summary of the monitoring program carried out in the previous year;
  - the dates on which icing and/or fogging were observed on the Trans Canada Highway 1 adjacent to the Development;
  - for the dates identified in Clause 27 b) of this Licence, the general weather conditions, including icing and/or fogging on other sections of the Trans Canada Highway 1; and
  - a summary of required maintenance on the warning signs installed pursuant to Clause 25 of this Licence.

### **Respecting Testing and Commissioning**

28. The Licencee shall not commence any testing, commissioning or operation of the Development which results in a discharge of wastewater from the Development until the operator of the WPCF has authorized the Licencee, in writing, to commence the release of the wastewater into the WPCF.

### **Respecting Operation - Potato Processing Plant**

29. The Licencee shall, upon the receipt of any written request from the operator of the WPCF or the lift station:

- a) restrict the quantity of any wastewater stream being directed from the Development to the WPCF to such a degree, within such timeframe, and for such duration as specified by the operator; and
- b) immediately advise the Director of the receipt of such a written request.

### **Respecting Chemical Storage**

30. The Licencee shall comply with all applicable requirements of:
  - a) *Manitoba Regulation 188/2001*, or any future amendment thereof, respecting the storage and handling of gasoline and associated products;
  - b) *The 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; and
  - c) *Manitoba Regulation 439/87*, or any future amendment thereof, respecting the reporting of environmental accidents.
31. The Licencee shall:
  - a) provide cooking oil spill containment at rail and truck unloading stations;
  - b) store cooking oil indoors; and
  - c) provide spill containment in the cooking oil storage area for a volume of liquid equal to 110 per cent of the largest tank volume and the effective displacement volume of all other tanks and structures located therein.
32. The Licencee shall store all process and cleaning chemicals, when not in use, in the Chemical Storage Rooms of the potato processing facility.
33. The Licencee shall store all food grade chemicals in a chemical room designed to retain spills.
34. The Licencee shall grade, surface, and dike or curb all areas where chemicals are stored, loaded, transferred or otherwise handled 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.
35. The Licencee shall provide containment within any diked or curbed liquid chemical storage area for a volume of liquid equal to 110 per cent of the volume of the largest storage tank located therein and the effective displacement volume of all other tanks and structures located therein.
36. The Licencee shall maintain the containment area volume capacities in Clauses 31 and 35 of this Licence by the immediate removal and disposal, in a manner approved by an Environment Officer, of all accumulated liquids.

37. The Licencee shall collect, transport and store used oil or hydraulic fluids removed from on-site machinery in secure, properly labeled, non-leaking containers and regularly send these materials to a recycling facility or a facility approved to accept hazardous wastes.
38. The Licencee shall have spill recovery equipment available on-site at all times.

**Respecting Air Emissions - Potato Processing Plant**

39. The Licencee shall install and maintain emission control devices on the fryer stacks to provide reduction in the emission of PM<sub>10</sub> to the satisfaction of the Director.
40. 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;
  - 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.
41. The Licencee shall not operate any process which might cause pollutants to be emitted from the Development unless:
  - a) upon the written request from the Director:
    - i) a Standard Operating Procedure manual for the operation and maintenance of the air handling and air pollution control equipment is prepared for and approved by the Director;
    - ii) all emissions from the process are directed to a fully operational air pollution control device(s);
    - iii) all discharges of treated emissions from the air pollution control devices are immediately directed to a stack which meets the conditions as stipulated in this Licence; and
  - b) the emissions do not contain concentrations of pollutants which:
    - i) are in violation of any other applicable legal instrument including an Act, Regulation or by-law; or
    - ii) otherwise create a significant health or environmental impact beyond the boundaries of the Development.

42. The Licencee shall maintain a log book of the most recent 24 months of downtime of any air pollution control equipment due to either the breakdown or maintenance of that 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:
- identification of the unit and the process(es) it serves;
  - time/date of log entry;
  - nature of event;
  - duration of event;
  - the accumulated downtime of this equipment for the events for each calendar year;
  - number of public complaints received during the event; and
  - signature of employee or manager.
43. 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 Monitoring - Potato Processing Plant**

44. 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:
- at a location(s) and within a time frame satisfactory to the Director; and
  - to the specifications and in accordance with the most recent version of Manitoba Conservation Guideline No. 97-06, *Guideline for Stack Sampling Facilities*, unless otherwise approved by the Director.
45. The Licencee, upon a written request from the Director, shall submit a detailed plan which is acceptable 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, 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.
46. 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.

47. The Licencee shall arrange the scheduling of the sampling plan submitted pursuant to Clause 45 of this Licence such that a representative of Conservation and Water Stewardship is available to monitor and audit the implementation of the sampling plan.
48. The Licencee shall complete the sampling of emissions according to the approved plan submitted pursuant to Clause 45 of this Licence, within a timeframe determined by the Director.
49. The Licencee shall submit a report, for the approval of the Director, of the completed sampling and analysis plan approved pursuant to Clause 45 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 potential acute and chronic impacts on 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 modeling of emissions;
    - v) results and conclusions of the QA/QC program; and
    - vi) other issues as may be determined by the Director.
50. 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 1 or 49 of this Licence.

### **Respecting Solid Waste**

51. The Licencee shall not undertake any on-site burning of solid waste.
52. The Licencee shall not deposit solid waste, including livestock feed material as identified in Clause 53 of this Licence, tare material, soil residues and biosolids, into the environment except:
  - a) in accordance with this Licence; or
  - b) in the event of an emergency situation and with the prior approval of an Environment Officer, into a waste disposal ground where the operator of the waste disposal ground has provided written agreement to accept the solid waste.



### **Respecting Livestock Feed Material**

53. The Licencee shall collect the following materials for livestock feed:
- cull potatoes;
  - screenings from the white water screens, which includes insoluble peel fibre;
  - excess or unusable potato pieces, including defects;
  - solids from the oil filter system in the fryer area;
  - potato spillage from the packaging area;
  - settled solids and from the DAF unit; and
  - the oily concentrate from the DAF unit, unless federally restricted as such, whereupon the oily concentrate may be offered as a feedstock for off-site biodiesel refining and/or offered for off-site refining of the oil into a heating fuel, by third party entities licensed under *The Environment Act*, or offered for an alternative use approved by the Director.
54. The Licencee shall store cull potatoes, potato solids, peel fibre and other livestock feed material indoors.
55. The Licencee shall not store livestock feed materials, including screened peel solids, trim waste, culls, nubbins and frozen waste, on the property of the Development for more than 48 hours, unless:
- in the opinion of an Environment Officer, inclement weather or road conditions prevent transportation from the property of the Development; and
  - the Licencee keeps a record available to an Environment Officer on request, of each incidence of storage of livestock feed materials on the property of the Development for more than 48 hours.
56. The Licencee shall dispose of livestock feed material identified in Clause 53 of this Licence such that the livestock feed material:
- is disposed of as livestock feed;
  - is disposed of as feedstock for off-site composting by third party entities operating pursuant to a Licence issued under *The Environment Act*.
  - is not disposed of by application to land; and
  - if disposed at a waste disposal ground pursuant to Clause 52 of this Licence, is disposed in accordance with any requirements specified by an Environment Officer.

### **Respecting Tare Material and Soil Residues**

57. The Licencee shall, except as provided by Clause 52 of this Licence, dispose of tare material and soil residues:
- by application to non-potato producing agricultural land;
  - for use by third party commercial developments as landscaping topsoil, clean construction fill, compost feedstock or landfill cover material in accordance with all applicable regulations; or

- c) by an alternative end use approved in writing by an environmental officer.
58. The Licencee shall transport tare material and soil residues in containers in such a manner to prevent loss of the material to the satisfaction of an Environment Officer.
59. The Licencee shall operate the facility such that all accumulated soil residues and tare material temporarily stored on site will be dry enough to form a pile without slumping or creating soil residue run off and at minimum be disposed of on an annual basis.
60. The Licencee shall not apply tare material or soil residues to agricultural land:
- less than 300 metres from any occupied resident (other than the residence occupied by the owner of the land on which the tare material is to be applied);
  - less than 1 kilometre from a residential area;
  - less than 15 metres from a first order waterway;
  - less than 30 metres from a second or higher order waterway;
  - less than 50 metres from any groundwater well; or
  - on land that is subject to flooding.
61. The Licencee shall not apply tare materials or soil residues on agricultural land:
- with a depth of clay or clay till of less than 15 metres between the soil surface and the water table;
  - within 100 metres of an identifiable boundary of an aquifer which is exposed to the ground surface; or
  - where the surface slope of the land is greater than 5 percent.
62. The Licencee shall not apply soil residues on agricultural land where prior to the application:
- the soil pH is less than 5.0;
  - the level of nitrate-nitrogen exceeds 101 kilograms per hectare in the upper 60 centimetres of the soil; or
  - the concentration of sodium bicarbonate extractable phosphorous, as P, exceeds 60 micrograms per gram in the upper 15 centimetres of the soil.
63. The Licencee shall, at least two weeks prior to the commencement of any application of tare material or soil residues to agricultural land:
- produce scaled site plan drawings of each site intended for the application of tare material or soil residues, showing all the applicable features and set back boundaries relevant to the surface and sub-surface criteria specified in Clauses 60, 61, and 62 of this Licence, and indicating the total remaining eligible area (in hectares) available in each intended application site;
  - stake out the determined boundaries of each intended application site in advance of the application, to ensure that the tare material and soil residues are applied to the land in conformity with Clauses 60, 61, and 62 of this Licence; and
  - provide to the Director and the respective municipal authority:

- i) the legal descriptions for the agricultural land on which tare material or soil residues are to be applied; and
- ii) one set of scaled site plan drawings produced pursuant to Clause 63 a) of this Licence for the application sites intended to be used.

64. The Licencee shall plant on all agricultural land onto which soil residues have been applied, a crop, other than a vegetable crop, at the commencement of the next growing season following such application and for a period of three years from the date of application of soil residues.
65. The Licencee shall, on all agricultural land onto which tare material or soil residues have been applied, not plant a potato crop for a period of ten years from the date of application of the material.
66. The Licencee shall apply tare material and soil residue to agricultural land such that the cumulative weight per hectare of each heavy metal in the soil, as calculated by adding the amount of each heavy metal in the tare material or soil residues applied to the background level of the same metal, does not exceed the following levels: \*

Metal	Kilogram per Hectare
Arsenic	21.6
Cadmium	2.52
Chromium - Total	115.2
Chromium (VI)	0.72
Copper	113.4
Lead	126
Mercury	11.9
Nickel	90
Zinc	360

\* Calculated values shall be based on a soil bulk density of 1200 kilograms per cubic metre and a soil depth of 15 centimetres. Analysis for heavy metals must be carried out in accordance with Schedule C of this Licence.

67. The Licencee shall apply tare material and soil residue to agricultural land such that not more than one-third of the initial maximum addition of each heavy metal is applied in any single application of tare materials or soil residues.
68. The Licencee shall, when applying tare material and soil residue to agricultural land, develop and carry out a field monitoring program on the tare material and soil residues disposal operation, which is acceptable to the Director, to determine:
- a) the surface slope of the land;
  - b) the presence of clay and clay till to a depth of 1.5 metres;

- c) for soil residues disposal operations, the sodium bicarbonate extractable phosphorous, as P, in the upper 15 centimetres of the soil; the nitrate-nitrogen and total nitrogen in the upper 60 centimetres of the soil; and the pH of the soil;
- d) the number of hectares in each field that can receive tare material or soil residues in accordance with the Licence; and
- e) the number of hectares on which tare material or soil residues were applied on a daily basis.

The Licencee shall make this information available to an Environment Officer on request.

69. The Licencee shall conduct a monitoring and analysis program, approved by the Director and in accordance with Schedules B and C of this Licence to determine:
- a) the composition of the tare materials and soil residues;
  - b) the background levels of selected soil parameters for each parcel of agricultural land where tare material and soil residues are to be applied; and
  - c) the crops grown on agricultural land on which soil residues and tare material have been applied during the previous 3-year period.
70. The Licencee shall, on or before the 15th day of March of each year, submit to the Director a report, which will include the following:
- a) For all soil residue and tare materials applied to agricultural land, specify the details of the tare materials and soil residues application program carried out during the previous 12-month period including:
    - i) a description of each parcel of land on which tare materials or soil residues were distributed;
    - ii) the background levels of soil parameters as listed in Schedule B of this Licence, for each parcel of land;
    - iii) the weight of each heavy metal, in milligrams per kilogram of soil, added to each parcel of land for the metals listed in Schedule B of this Licence;
    - iv) the cumulative weight, in kilograms per hectare, of each heavy metal for each parcel of land as calculated by adding the amount of each heavy metal applied to the background level of the same metal;
    - v) the amount of nitrogen, phosphorus, and potassium which was added per hectare for each parcel of land; and
    - vi) the type of crops grown on land on which soil residues were applied during the previous 3-year period.
  - b) For all soil residue and tare materials disposed of in a manner consistent with clause 57 b) or c) of this licence, the Licencee shall provide details on end use disposal during the previous 12 month period including:
    - i) name(s) of business and proprietor of third party development utilizing soil residues and tare materials;
    - ii) location(s) of third party development;
    - iii) description(s) of management of tare material and soil residue and final use; and
    - iv) amount(s) of soil residue and tare material utilize at each development.

- c) the results of analysis of the tare materials, soil residues and soil required by this Licence; and
  - d) a copy of the analytical procedures used and the results of analysis of reference materials in accordance with Schedule C of this Licence.
71. The Licencee shall, during any year in which soil residues are applied, determine that the amount of plant-available nitrogen added to the land from all sources does not exceed 101 kilograms per hectare.

### **Respecting Wastewater Treatment**

72. The Licencee shall:
- a) discharge sanitary wastes directly into the lift station; and
  - b) not discharge sanitary wastes into the LRAR.
73. The Licencee shall direct all process wastewater, including white water, pre-treated oily wastewater, boiler/cooling tower blow-down, and clean-up water to the LRAR prior to discharging to the lift station.
74. The Licencee shall operate and maintain a DAF unit to pre-treat oily wastewater prior to discharging to the LRAR.

### **Respecting Operation - LRAR and Sulphide Oxidation Facility**

75. The Licencee shall, in addition to the other requirements of this Licence:
- a) prior to operation of the development, submit to the Director a copy of a dated and signed Industrial Services Agreement for collection and treatment of industrial wastewater at the WPCF; and
  - b) carry out all aspects of the operation of the LRAR and sulphide oxidation facility in compliance with the Industrial Services Agreement.
76. The Licencee shall, once the LRAR is commissioned, maintain the contents of the LRAR at a temperature not less than 20°C.
77. The Licencee shall not accept wastewater or liquid sludge into the LRAR from any source other than the potato processing facility, except with the prior approval of the Director in order to seed the LRAR with selected organisms upon the start-up of the LRAR or to recover from a treatment process upset.
78. The Licencee shall:
- a) if the leak detection manhole for the primary liner of the double lined LRAR indicates a continuous leakage of the liner:
    - i) install a permanent pump, and pump the fluids into the inlet chamber of the LRAR; and

- ii) if necessary, raise the top elevation of the manhole to above the high water mark in the LRAR to contain the leakage; and
  - b) if the leak detection manhole for the primary liner of the double lined LRAR indicates a continuous leakage at a rate greater than that which would be expected at the maximum operating depth to seep through the entire submerged surface area of the primary liner with an overall hydraulic conductivity not exceeding  $1 \times 10^{-9}$  centimetres per second, repair the primary liner to the satisfaction of the Director.
79. The Licencee shall continually maintain the biogas containment cover of the LRAR in a state of proper function to minimize biogas leakage to the atmosphere.
80. The Licencee shall:
- a) collect all biogas from the LRAR;
  - b) send all the biogas to the potato processing plant and utilize it as an energy source in the operation of the potato processing plant; and
  - c) flare excess or non-required amounts of collected biogas to the atmosphere.
81. The Licencee shall treat the effluent from the LRAR in the sulphide oxidation facility prior to discharge to the lift station.
82. The Licencee shall, upon written request from the Director:
- a) submit a plan to the Director for approval for the provision of treatment of the sulphide oxidation facility off-gas; and
  - b) carry out the approved plan in accordance with any specifications, limits, terms or conditions of the approval.

**Respecting Monitoring - Wastewater**

83. The Licencee shall:
- a) construct and make available for use by an Environment Officer, secured and heated monitoring stations, at a location approved by the Director, with direct access to the effluent pipeline transporting wastewater off the property of the Development to the lift station;
  - b) make all monitoring stations accessible to an Environment Officer at all times;
  - c) install and maintain a flow measuring device at each monitoring station or at a location acceptable to the Director which is capable of measuring the volume of effluent with an accuracy of  $\pm 2$  percent;
  - d) have the flow measuring device re-calibrated biannually or on the request of an Environment Officer;
  - e) submit to the Director a certificate of calibration, signed by a person qualified to calibrate the flow measuring device, for each flow measuring device within two weeks of the completion of each calibration, identifying the plus or minus percent error associated with each calibrated flow measuring device; and

- f) equip each monitoring station with a flow-proportional sampling device equipped to function with the flow measuring device and have the sampling device available on request for use by an Environment Officer.
84. The Licencee shall:
- a) continuously measure and record the volume of the wastewater discharged into the LSAF;
  - b) take one flow proportional sample of wastewater discharged into the LSAF over a 24 hour period every 6 days;
  - c) have the samples analyzed for five day biochemical oxygen demand, chemical oxygen demand, total suspended solids, TKN, nitrate-nitrite, and total phosphorous;
  - d) calculate the five day biochemical oxygen demand, chemical oxygen demand, total suspended solids, total nitrogen, and phosphorous loads (kilograms per day) for the days during which samples were collected;
  - e) prepare a monthly report on:
    - i) the daily, average, peak, minimum and total monthly volume of wastewater discharged into the LSAF; and
    - ii) the five day biochemical oxygen demand, chemical oxygen demand, total suspended solids, total nitrogen, and phosphorous loads and the flow conditions on the days the sample were collected; and
  - f) file a copy of the report with the Director within 30 days of the end of each month during which the loads were determined.
85. The Licencee shall, in an event where the wastewater discharged to the lift station exceeds the limits set out in Schedule A attached to this Licence, and the effluent from the WPCF does not exceed a limit, term, condition, or specification of Environment Act Licence No. 2543 R or subsequent revision thereof:
- a) determine the cause of the event;
  - b) determine the duration of the event and estimate the frequency of any future events resulting from a similar cause;
  - c) assess the impact of the event on the downstream components of the wastewater collection system and WPCF;
  - d) assess the risk of causing the effluent from the WPCF to exceed a limit, term, condition, or specification of Environment Act Licence No. 2543 R or subsequent revision thereof;
  - e) determine the alternatives and need to stop the event and any future events;
  - f) develop a preferred course of action to mitigate any adverse impacts of the event and any future similar events on the downstream components of the wastewater collection system and WPCF;
  - g) report the above determinations and assessments to the Director within 60 days from the identification of the event or such other date as may be approved in advance by the Director; and
  - h) take any action deemed necessary by the Director to stop the event or any future events.

The Licencee may submit, to the Director for approval, proposed amendments to the course of action to stop the event or any future events. The Licencee shall implement any amendments approved by the Director in a manner and within the time frames specified by the Director.

86. The Licencee shall, in an event where the wastewater discharged to the lift station exceeds a limit as set out in Schedule A attached to this Licence, and the effluent from the WPCF exceeds a limit, term, condition, or specification of Environment Act Licence No. 2543 R or subsequent revision thereof:
- a) notify the Director by facsimile, or any other notification procedure approved by the Director, stating the nature of the event, the time and estimated duration of the event and the reason for the event as follows:
    - i) as soon as possible but no later than within 12 hours of the event; or
    - ii) before noon of the first business day following an event on a weekend or statutory holiday;
  - b) restrict the loading from the LRAR or take any other action deemed necessary by the Director to stop the event and any future events where the limits set out in Schedule A attached to this Licence are exceeded within the time frame specified by the Director;
  - c) assess the impact of discharging an effluent that exceeds a limit as set out in Schedule A attached to this Licence on the downstream components of the wastewater collection system and WPCF;
  - d) determine the alternatives to stop the discharge of effluent from the WPCF in excess of a limit, term, condition, or specification of Environment Act Licence No. 2543 R or subsequent revision thereof where the effluent from the Development is determined to cause or contribute to the discharge of effluent from the WPCF in excess of a limit, term, condition, or specification of Environment Act Licence No. 2543 R or subsequent revision thereof;
  - e) develop a preferred course of action;
  - f) report the above determinations and assessments to the Director within 30 days from the identification of the event or such other date as may be approved in advance by the Director; and
  - g) take any actions respecting the operation of the LRAR or sulphide oxidation facility, deemed necessary by the Director in a manner and within the time frames specified by the Director, to stop the discharge of effluent from the WPCF in excess of a limit, term, condition, or specification of Environment Act Licence No. 2543 R or subsequent revision thereof.

The Licencee may submit, to the Director for approval, proposed amendments to the course of action to stop the event or any future events. The Licencee shall implement any amendments approved by the Director in a manner and within the time frames specified by the Director.



**Respecting Biosolids**

87. The Licencee shall not, except as provided by Clause 52 of this Licence, dispose of biosolids by application to agricultural land.
88. The Licencee shall, prior to removal for disposal on agricultural land, subject the biosolids to anaerobic digestion for a period of 30 days at a minimum temperature of 20°C, or an equivalent digestion process acceptable to the Director.
89. The Licencee shall transport biosolids in containers in such a manner as to prevent loss of biosolids to the satisfaction of an Environment Officer.
90. The Licencee shall apply all biosolids to agricultural land such that biosolids are injected into the soil at a minimum depth of 15 centimetres below the soil surface or that soil is mounded to a depth of 15 centimetres above the level at which the biosolids were injected into the soil in such a manner as to cover all of the biosolids.
91. The Licencee shall apply all biosolids to agricultural land such that:
  - a) the biosolids remain in the furrow opening; and
  - b) the surface expression of the injected biosolids is acceptable to an Environment Officer.
92. The Licencee shall apply biosolids to land such that the application rate of biosolids onto the land does not exceed 10 tonnes per hectare, on a dry weight basis, over any four year period and that the amount of plant-available nitrogen added to the land from all sources does not exceed 101 kilogram per hectare during any year in which biosolids are applied.
93. The Licencee shall not apply biosolids:
  - a) to frozen soil;
  - b) less than 300 metres from any occupied residence (other than the residence occupied by the owner of the land on which the biosolids are to be applied);
  - c) less than 1 kilometre from a residential area;
  - d) less than 15 metres from a first order waterway;
  - e) less than 30 metres from a second or higher order waterway;
  - f) less than 50 metres from any groundwater well; or
  - g) on land that is subject to flooding.
94. The Licencee shall not apply biosolids on land:
  - a) with a depth of clay or clay till of less than 1.5 metres between the soil surface and the water table;
  - b) within 100 metres of an identifiable boundary of an aquifer which is exposed to the ground surface;

- c) where, prior to the application of biosolids, the soil pH is less than 6.0;
- d) where the surface slope of the land is greater than 5 percent;
- e) where, prior to the application of biosolids, the level of nitrate-nitrogen exceeds 101 kilograms per hectare in the upper 60 centimetres of the soil; or
- f) where, prior to the application of biosolids, the concentration of sodium bicarbonate extractable phosphorous, as P, exceeds 60 micrograms per gram in the upper 15 centimetres of the soil.

95. The Licencee shall:

- a) at least 30 days prior to the commencement of any application of biosolids to land, produce scaled site plan drawings of each site intended for the application of biosolids, showing all the applicable features and set back boundaries relevant to the surface and sub-surface criteria specified in Clauses 93 and 94 of this Licence, and indicating the total remaining eligible area (in hectares) available in each intended biosolids application site; and
- b) stake out the determined boundaries of each intended biosolids application site in advance of the application of biosolids, to ensure that the biosolids are applied to the land in conformity with Clauses 93 and 94 of this Licence.

96. The Licencee shall, on all agricultural land onto which biosolids have been applied, plant a crop other than a potato crop or a vegetable crop at the commencement of the next growing season following such application and for a period of three years from the date of application of biosolids.

97. The Licencee shall, on all agricultural land onto which biosolids have been applied, not plant a potato crop for a period of five years from the date of application of biosolids.

98. The Licencee shall apply biosolids to land such that the cumulative weight per hectare of each heavy metal in the soil, as calculated by adding the amount of each heavy metal in the biosolids applied to the background level of the same metal, does not exceed the following levels: \*

Metal	Kilogram per Hectare
Arsenic	21.6
Cadmium	2.52
Chromium ( Total )	115.2
Chromium (VI)	0.72
Copper	113.4
Lead	126
Mercury	11.9
Nickel	90
Zinc	360

\* Calculated values shall be based on a soil bulk density of 1200 kilograms per cubic metre and a soil depth of 15 centimetres. Analysis for heavy metals must be carried out in accordance with Schedule C of this Licence.

99. The Licencee shall apply biosolids to land such that not more than one-third of the initial maximum addition of each heavy metal is applied in any single application of biosolids.
100. The Licencee shall provide to the Director and the respective municipal authority, on or before the 15th day of March of each year, the legal descriptions for all land on which biosolids are to be applied in the current calendar year.
101. The Licencee shall, on or before the 15th day of March of each year, print a public notice in the local newspapers to advise local residents of the intended biosolids application sites for the current calendar year.
102. The Licencee shall develop and carry out a biosolids sampling and analysis program, acceptable to the Director, to determine the volume and solids content of the biosolids removed on a daily basis and the volume and solids content of biosolids applied to each field. The Licencee shall make this information available to an Environment Officer on request.
103. The Licencee shall submit to the Director each year and at least 30 days prior to the commencement of any application of biosolids onto land, one set of scaled site plan drawings produced pursuant to Clause 95 of this Licence for the biosolids application sites intended to be used in that year.
104. The Licencee shall develop and carry out a field monitoring program on the biosolids disposal operation, which is acceptable to the Director, to determine:
- a) The sodium bicarbonate extractable phosphorous, as P, in the upper 15 centimetres of the soil;
  - b) the nitrate-nitrogen and total nitrogen in the upper 60 centimetres of the soil;
  - c) the pH of the soil;
  - d) the surface slope of the land;
  - e) the presence of clay and clay till to a depth of 1.5 metres;
  - f) the number of hectares in each field that can receive biosolids in accordance with the Licence; and
  - g) the number of hectares on which biosolids were applied on a daily basis.

The Licencee shall make this information available to an Environment Officer on request.

105. The Licencee shall conduct a monitoring and analysis program, approved by the Director and in accordance with Schedules B and C of this Licence to determine:
- a) the composition of the biosolids;
  - b) the background levels of selected soil parameters for each parcel of land; and

- c) the crops grown on land on which biosolids have been applied during the previous 5-year period.
106. The Licencee shall, on or before the 15th day of March of each year, submit to the Director a report, which will include the following:
- a) details of the biosolids injection program carried out during the previous 12-month period including:
    - i) a description of each parcel of land on which biosolids were distributed;
    - ii) the background levels of soil parameters as listed in Schedule B of this Licence, for each parcel of land;
    - iii) the dry weight of biosolids applied per hectare;
    - iv) the weight of each heavy metal, in milligrams per kilogram of soil, added to each parcel of land for the metals listed in Schedule B of this Licence; and
    - v) the cumulative weight, in kilograms per hectare, of each heavy metal for each parcel of land as calculated by adding the amount of each heavy metal applied to the background level of the same metal;
  - b) the amount of nitrogen, phosphorus, and potassium which was added per hectare for each parcel of land;
  - c) the results of analysis of the biosolids and soil required by this Licence;
  - d) a copy of the analytical procedures used and the results of analysis of reference materials in accordance with Schedule C of this Licence; and
  - e) the type of crops grown on land on which biosolids were applied during the previous 5-year period.

#### **Respecting Emergency Response Planning**

107. 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.

#### **Respecting Expansion**

108. The Licencee shall, prior to commencing construction for Phase II:
- a) submit a Notice of Alteration to the Director pursuant to Clause 14(1) of *The Environment Act*;
  - b) notify the City of Portage la Prairie of the intent to expand to Phase II; and
  - c) receive approval from the Director for the expansion.
109. The Licencee shall not commence any commissioning or operating Phase II activity involving the direction of any process wastewater or sanitary wastes to the WPCF, until that facility has received an Environment Act Licence for the treatment of the additional

wastewater due to Phase II and the operator of that facility has authorized the Licencee, in writing, to commence the release of the additional wastewater into the facility.

### **Respecting Decommissioning**

110. The Licencee shall submit a decommissioning plan for the Development, suitable to the Director, prior to commencement of operation of the Development.

### **Disclaimer**

111. Notwithstanding the foregoing clauses, where any clause in this Licence specifies a limit term or condition which contradicts the requirements laid out in the *Nutrient Management Regulation 62/2/2008* (or any future revision thereof), the regulated requirement takes precedence over the licensed limit, term or condition.

### **REVIEW AND REVOCATION**

- A. Licence No. 2518 R7 is hereby rescinded.
- B. 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.
- C. If, in the opinion of the Director, the evidence warrants a change in the specifications, limits, terms or conditions of any Licence, the Director may require the filing of a new proposal pursuant to Section 10 of *The Environment Act*.

*“original signed by”*

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**Tracey Braun, M.Sc.**  
**Director**  
**Environment Act**

**SCHEDULE 'A' TO**  
**ENVIRONMENT ACT LICENCE NO. 2518 R8**

**Industrial (Poplar Bluff) Pre-treatment Effluent Limits**

<b>Parameter</b>	<b>Annual Average</b>	<b>Maximum Day</b>
<b>Flow (ML/d)</b>	5.4	6.9
<b>COD (kg/d)</b>	3861	7544
<b>BOD (kg/d)</b>	1588	3478
<b>TSS (kg/d)</b>	1349	3618
<b>TKN (kg/d)</b>	889	1326
<b>TP (kg/d)</b>	246	338

COD means chemical oxygen demand  
BOD means five day biochemical oxygen demand  
TSS means total suspended solids  
TKN means total Kjeldahl nitrogen  
TP means total phosphorous

rescinded

**SCHEDULE 'B' TO**  
**ENVIRONMENT ACT LICENCE NO. 2518 R8**

**Tare Materials, Soil Residues and Biosolids**

1. A representative sample of biosolids shall be collected every year. A representative sample of biosolids shall be a composite of samples of biosolids taken over an 8-hour period from the biosolids that will be removed for disposal on agricultural land.
2. A representative sample of tare materials shall be collected quarterly. A representative sample of tare materials shall be a composite of samples of tare materials taken over an 8-hour period from the tare materials that will be removed for disposal on agricultural land.
3. A representative sample of soil residues shall be collected quarterly. A representative sample of soil residues shall be a composite of samples of soil residues taken over an 8-hour period from the soil residues that will be removed for disposal on agricultural land.
4. The samples of tare materials, soil residues and biosolids shall be analyzed for the following parameters: \*
  - a. conductivity
  - b. pH
  - c. total solids
  - d. volatile solids
  - e. nitrate nitrogen
  - f. total Kjeldahl nitrogen
  - g. ammonia nitrogen
  - h. organic nitrogen
  - i. total phosphorus
  - j. potassium
  - k. arsenic
  - l. cadmium
  - m. chromium (total and VI)
  - n. copper
  - o. lead
  - p. mercury
  - q. nickel
  - r. zinc

\* Analysis for heavy metals must be carried out in accordance with Schedule 'C' of this Licence.

**Soil**

5. Composite samples from each field onto which tare materials, soil residues or biosolids will be applied shall be taken prior to application of tare materials, soil residues or biosolids. Each field of twenty-four hectares or less shall be sampled from a minimum of twelve representative sites or a minimum of one sample site per two hectares for larger fields. Each sample site shall be sampled from 0 to 15 centimetres and from 0 to 60 centimetres. The entire core extracted for each sample shall be collected. All samples from similar depths within a field shall be bulked in one container for thorough mixing prior to analysis yielding two samples per field.

**SCHEDULE 'B' TO**  
**ENVIRONMENT ACT LICENCE NO. 2518 R8 (cont'd.)**

6. Soil samples from 0 to 15 centimetres shall be analyzed for the following: \*
- |  |            |
|--|------------|
| a. pH  | g. copper  |
| b. potassium                                       | h. lead    |
| c. arsenic   | i. mercury |
| d. cadmium   | j. nickel  |
| e. chromium (total and VI)                         | k. zinc    |
| f. sodium bicarbonate extractable phosphorus, as P |            |

\* Analysis for heavy metals must be carried out in accordance with Schedule 'C' of this Licence.

7. Soil samples from 0 to 60 centimetres shall be analyzed for the following:
- |                     |                   |
|---------------------|-------------------|
| a. nitrate nitrogen | b. total nitrogen |
|---------------------|-------------------|

**Crops**

8. The type of crop grown on lands on which biosolids have been applied during the previous 3-year period shall be listed along with the legal description of the land and the date of application of biosolids.
9. The type of crop grown on lands on which soil residues have been applied during the previous 3-year period shall be listed along with the legal description of the land and the date of application of soil residues.

**rescinded**



**SCHEDULE 'C' TO**  
**ENVIRONMENT ACT LICENCE NO. 2518 R8**

The analysis for all metals shall be carried out in accordance with the following requirements:

1. Soil and sludge samples shall be prepared using non-contaminating grinding and sieving procedures such as agate or porcelain mortar and pestle along with nylon sieves. Soil samples shall be ground to at least 100 mesh size prior to digestion or sample pretreatment.
2. Analysis for heavy metals must be carried out following strong acid digestion.
3. The laboratory performing these analyses shall operate an acceptable quality assurance program including the following:
  - a) Samples of reference material shall be analyzed to monitor the accuracy of the sludge and soil analyses and each set of ten or fewer samples of sludge or soil shall include a minimum of the following:
    - i) For sludge samples:
      - one NIST Domestic Sludge sample (SRM 2781);
    - ii) For soil samples:
      - one NIST Estuarine Sediment sample (SRM 1933a);
      - one NIST San Joaquin Soil sample (SRM 2719); or
      - a replacement reference soil sample acceptable to the Director, with analyte concentrations that reflect values found in field samples; and
  - b) Field duplicates of samples shall be analyzed based on a frequency of one in each set of ten or fewer field samples and the acceptance criteria for duplicate analysis should be within  $\pm 10$  percent.
4. A copy of the analytical procedures and the analytical results for the reference materials, and any other controls used in the analysis shall be submitted with the field sample results.
5. If the analytical results of the reference materials do not meet the following criteria, the soil and/or sludge samples must be re-analyzed:

Arsenic	$\pm 35$ percent from the reference value
Cadmium	$\pm 25$ percent from the reference value (for values above $1 \mu\text{g/g}$ )
Cadmium	$\pm 35$ percent from the reference value (for values below $1 \mu\text{g/g}$ )
Copper	$\pm 25$ percent from the reference value
Chromium	$\pm 25$ percent from the reference value
Lead	$\pm 25$ percent from the reference value
Mercury	$\pm 35$ percent from the reference value
Nickel	$\pm 25$ percent from the reference value
Zinc	$\pm 25$ percent from the reference value