

# Environment Act Licence Loi sur l'environnement Licence

Manitoba  
Conservation  
Conservation  
Manitoba



Licence No./Licence n° 2367 S2R

Issue Date/Date de délivrance August 20, 1999

Revised: **March 14, 2002**

IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)  
THIS STAGE 2 LICENCE IS ISSUED PURSUANT TO SECTIONS 11(1), 13(1) AND 14(2)  
TO:

## THE CITY OF BRANDON; "the Licencee"

to commission a Development, being a wastewater treatment facility, located on parts of Section 16, Township 10, Range 18 WPM, within the City of Brandon, designed and constructed to treat and disinfect sanitary sewage and pre-treated process wastewater generated by a 1-shift per day, maximum 6-day per week operation of the adjacent Maple Leaf Meats hog processing facility, in accordance with a revised Proposal submitted to the Department on May 10, 1999, a Preliminary Commissioning Report dated May 18, 1999, and a notice of alteration dated November 15, 2001, 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 Environment 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;

“**affected area**” means a geographical area, excluding the property of the Development;

“**approved**” means approved by the Director in writing;

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

“**CBOD<sub>5</sub>**” means 5-day carbonaceous biochemical oxygen demand;

“**commissioning period**” means up to one year from the initial date of acceptance of wastewater into the Development;

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

“**composite sample of the effluent**” means a quantity of undiluted effluent composed of a minimum of 24 sequential series of discrete equal volumes of effluent collected at a rate proportionate to the flow rate of the effluent over a period of 24 consecutive hours;

“**composite sample of the influent**” means a quantity of undiluted influent composed of a minimum of 24 sequential series of discrete equal volumes of influent collected at a rate proportionate to the flow rate of the influent over a period of 24 consecutive hours;

“**day**” or “**daily**” means any period of 24 consecutive hours;

“**Director**” means an employee of the department appointed as such by the Minister;

“**effluent**” means wastewater released into the environment;

“**fecal coliform**” means aerobic and facultative, Gram-negative, nonspore-forming, rod-shaped bacteria capable of growth at 44.5° C, and associated with fecal matter of warm blooded animals;

“**final discharge point**” means the effluent monitoring facilities located in the UV disinfection building shown in Appendix ‘A’ attached to this Licence, unless otherwise re-designated in writing by the Director;

“**five-day biochemical oxygen demand**” means that part of the oxygen demand usually associated with biochemical oxidation of organic matter within 5 days at a temperature of 20° C;

“**grab sample**” means a quantity of undiluted effluent collected at any given time;

“**hog processing facility**” means the adjacent Maple Leaf Meats hog processing facility and includes: the hog processing plant; hog holding pens; a utility building; a process wastewater pretreatment facility; a trailer wash building; a guard house; an office building; gravel parking areas; and two access roads;

“**hog processing plant**” means the adjacent Maple Leaf Meats main processing plant structure;

“**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;

“**influent**” means pre-treated process wastewater being received from the wastewater pre-treatment plant of the hog processing facility;

“**mg/L**” means milligrams per litre;

“**kg/d**” means kilograms per day;



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

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

if the odour, smell or aroma

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

**“pollutant”** means a pollutant as defined in The Environment Act;

**“process wastewater”** means all wastewater from the hog processing facility, excluding sanitary sewage;

**“MPN index”** means the most probable number of coliform organisms in a given volume of wastewater or effluent which, in accordance with statistical theory, would yield the observed test result with the greatest frequency;

**“7Q10”** means the average minimum seven day flow which occurs once in ten years;

**“total coliform”** means a group of aerobic and facultative anaerobic, Gram-negative, nonspore-forming, rod-shaped bacteria, that ferment lactose with gas and acid formation within 48 hours at 35° C, and inhabit predominantly the intestines of man or animals, but are occasionally found elsewhere, and include the sub-group of fecal coliform bacteria;

**“undiluted”** means not having water added for the purposes of meeting the limits of this Licence;

**“WASP”** means the Water Analysis Simulation Program developed by the U.S. Environmental Protection Agency;

**“wastewater”** means any liquid containing a pollutant; and

**“week”** or **“weekly”** means any period of 7 consecutive days.

## 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 on liquid samples in accordance with the methods prescribed in the most current 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 Pollution Control Federation, or in accordance with an equivalent analytical methodology 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 Commissioning and Integrity of the Development

4. The Licencee shall, following the receipt of this Licence, and being satisfied that the Development is ready to accept wastewater from the hog processing facility:
  - (a) authorize Maple Leaf Meats Inc. in writing that the transfer of wastewater to the Development may commence, with a copy of the authorization sent to the Director; and



- (b) copy the Director on any written requests or authorizations provided by the Licencee to Maple Leaf Meats Inc. concerning the subsequent management of influent process wastewater flow rates or influent pollutant loading rates.
5. The Licencee shall, in the case of any physical or mechanical breakdown of the Development which would affect the performance of the Development or may cause the release of unauthorized pollutants into the environment:
    - (a) immediately notify the Director;
    - (b) identify the repairs required to be made to the Development; and
    - (c) complete the repairs in accordance with such written instructions as may be issued by the Director.
  6. The Licencee shall on and after November 1, 1999, continually maintain the contents of the anaerobic basin of the Development at a temperature not less than 28 degrees Celsius.

**Respecting Influent**

7. The Licencee shall not accept wastewater or liquid sludge into the Development from any source other than the hog processing facility, except to seed the Development with selected organisms upon the start-up of the Development or to recover from a treatment process upset.
8. The Licencee shall not accept any influent into the Development which:
  - (a) exceeds a maximum daily flow rate of 5,725 cubic metres per day, or a maximum weekly flow rate of 31,200 cubic metres per week;
  - (b) exceeds any of the maximum daily or maximum weekly pollutant loadings shown in the following table:

<u>Parameter</u>	<u>Maximum Daily (kilograms per day)</u>	<u>Maximum Weekly (kilograms per week)</u>
CBOD <sub>5</sub>	13,901	59,280
total suspended solids	9,676	37,440
total kjeldahl nitrogen	1,659	6,145
oil and grease	1,995	5,865

; or

- (c) is not heated to the temperature specified by the Licencee, as provided for, and subject to the conditions specified, in the "Agreement for Exchange of Energy" signed by Maple Leaf Meats Inc. and the Licencee on August 4, 1999.
9. The Licencee shall not accept any influent into the Development from a 2-shift operation of the hog processing facility until the Licencee is so authorized through a Licence issued pursuant to The Environment Act.

**Respecting Effluent**

10. The Licencee shall release effluent from the Development only through the final discharge point.
11. The Licencee shall not release any effluent from the Development if the quality of the effluent is such that:
  - (a) the organic content in the effluent, as indicated by the five-day biochemical oxygen demand, is in excess of 30 mg/L, as determined from any composite sample of the effluent;
  - (b) the total suspended solids content in the effluent, is in excess of 30 mg/L, as determined from any composite sample of the effluent;
  - (c) the fecal coliform count in the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample, as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week; or
  - (d) the total coliform count in the effluent, as indicated by the MPN index, is in excess of 1500 per 100 millilitres of sample, as determined by the monthly geometric mean of 1 grab sample collected at equal time intervals on each of a minimum of 3 consecutive days per week.
12. The Licencee shall ensure that, on any day during the commissioning period, and under prevailing Assiniboine River flow rates equal to or greater than the 7Q10 flow rates (see Appendix 'B' attached to this Licence) for the corresponding period, the daily sum of:
  - (a) the ammonia nitrogen loading (expressed as kg/d of N) released from the Development; plus
  - (b) the ammonia nitrogen loading (expressed as kg/d of N) allocated by licence to Simplot Canada Limited (Appendix 'C' attached to this Licence) for release to the Assiniboine River on the same day; plus
  - (c) the ammonia nitrogen loading (expressed as kg/d of N) released by the Licencee from the City of Brandon municipal wastewater treatment facility on the same day;

does not exceed 100% of the theoretical assimilative capacity of the Assiniboine River, as determined through the use of the Department's ammonia nitrogen mass balance model or the Assiniboine River WASP model in a manner satisfactory to the Director, for that same day within the receiving area of the river, before the Manitoba Surface Water Quality Objective for un-ionized ammonia (as  $\text{NH}_3$ ) is exceeded in the immediate downstream fully mixed zone, as based on the prevailing discharge flow rates from each of the three ammonia discharge sources and on the prevailing ambient ammonia nitrogen concentration, pH and temperature of the Assiniboine River at 18th Street in the City of Brandon.
13. Notwithstanding Clause 12 of this Licence, the Licencee shall not, on any day, and under prevailing Assiniboine River flow rates equal to or greater than the 7Q10 flow rates listed in



Appendix 'B' attached to this Licence for the corresponding period, release a quality of effluent from the Development which:

- (a) causes, or contributes to, the un-ionized ammonia concentration (expressed as mg/L of  $\text{NH}_3$ ) in the Assiniboine River, at the nearest downstream model predicted fully mixed river monitoring station, to exceed the Manitoba Surface Water Quality Objective for un-ionized ammonia under the prevailing pH and temperature of the river measured at the same downstream monitoring station; or
  - (b) causes, or contributes to, the dissolved oxygen level in the water column of the Assiniboine River, at the nearest downstream model predicted location of lowest dissolved oxygen, to drop to less than 5.0 mg/L.
14. The Licencee shall not, on any day, release a quality of effluent from the Development which:
- (a) causes, or contributes to, the mixing zone for the effluent in the Assiniboine River being acutely lethal to aquatic life passing through the mixing zone; or
  - (b) which can be demonstrated to be acutely lethal to fish within the mixing zone for the effluent in the Assiniboine River by using a 96-hour static acute lethality test which results in mortality to more than 50 percent of the test fish exposed to 75% per cent strength effluent, with the test carried out in accordance with the protocol outlined in Environment Canada's "Biological Test Method: Acute Lethality Test Using Rainbow Trout", Report No. EPS 1/RM/13 dated July 1990, or any future amendment thereof.
15. The Licencee shall, if in the opinion of the Director the nutrient levels in the effluent from the Development are causing or contributing to an unacceptable water quality condition in the Assiniboine River at any point between the effluent outfall of the Development and the City of Portage la Prairie, restrict the operation of the Development to such a degree and for such a period as may be specified by the Director, or otherwise reduce the input of nutrients into the Assiniboine River to the satisfaction of the Director.

#### **Respecting Surface Runoff**

16. The Licencee shall construct and maintain silt fences in the drainage routes transporting surface runoff off the property of the Development until vegetation has been re-established on the disturbed areas.
17. 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.

#### **Respecting Groundwater Protection**

18. The Licencee shall, upon being advised that the Groundwater Monitoring Program being undertaken by Maple Leaf Meats Inc. reveals groundwater monitoring results which suggest that the Development is the probable source of some groundwater pollution:
- (a) initiate an investigation as soon as possible, and to the satisfaction of the Director, in order to determine the specific source or cause of the pollution; and

- (b) take such action as is necessary to terminate the determined source or cause of the pollution until the problem is corrected, and implement remediation measures, to the satisfaction of the Director, to restore the impacted area of groundwater.
19. The Licencee shall, upon the suspicion or detection of any leaking or ruptured wastewater collection pipe or forcemain, immediately undertake an investigation, and upon confirmation of a leak or rupture, terminate or otherwise re-route all inputs to the pipe or forcemain until the necessary repair has been completed.
20. The Licencee shall,
- (a) if the leak detection manhole for the primary liner of the double lined anaerobic basin indicates a continuous leakage of the liner:
- (i) install a permanent pump, and pump the fluids into the inlet chamber of the anaerobic basin; and
- (ii) if necessary, raise the top elevation of the manhole to above the high water mark in the anaerobic basin to contain the leakage; and
- (b) if the leak detection manhole for the primary liner of the double lined anaerobic basin 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 when the second anaerobic basin has been constructed and commissioned.
21. The Licencee shall, upon evidence from the groundwater monitoring wells around the anaerobic basin of any leakage of pollutants through the primary and secondary liner of the anaerobic basin, and where in the opinion of the Director the groundwater has or may become seriously polluted, immediately decommission the anaerobic basin and construct a second anaerobic basin.

#### **Respecting Terrestrial Management**

22. The Licencee shall revegetate surface areas on the property of the Development, affected by construction and by re-contouring, in order to minimize or prevent soil erosion.

#### **Respecting Air Emissions**

23. The Licencee shall continually maintain the biogas containment cover of the anaerobic basin in a state of proper function to minimize biogas leakage to the atmosphere.
24. The Licencee shall:
- (a) collect all biogas from the anaerobic basin of the wastewater treatment facility;
- (b) send all the biogas to the hog processing plant, as provided for, and subject to the conditions specified, in the "Agreement for Exchange of Energy" signed by Maple Leaf Meats Inc. and the Licencee on August 4, 1999; and
- (c) (i) flare excess or non required amounts of collected biogas to the atmosphere; or  
(ii) if the flaring unit is temporarily unavailable for use, pass the biogas through activated carbon filters before releasing the biogas to the atmosphere.



25. 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 specify to eliminate or mitigate an odour nuisance.

**Respecting Solid Wastes**

26. The Licencee shall not undertake any on-site burning of solid waste.
27. The Licencee shall maximize, wherever possible, the collection and recycling of recyclable wastes generated through the commissioning activities.
28. The Licencee shall not deposit solid waste into the environment except into a waste disposal ground operating under the authority of an Environment Act Licence, or a permit issued pursuant to Manitoba Regulation 150/91 or any future amendment thereof, where the operator of that facility has agreed to accept the solid waste.

**Respecting Sludge Wastes**

29. The Licencee shall not dispose of any sludge from the Development into the environment, other than sludge withdrawn from the anaerobic basin of the Development.
30. The Licencee shall dispose of sludge withdrawn from the anaerobic basin of the Development only in accordance with a Sludge Management Plan approved by the Director.

**Respecting Influent and Effluent Monitoring Stations**

31. The Licencee shall:
- (a) ensure that the influent and effluent lines associated with the Development each have an in-line continuous flow meter which is factory calibrated and certified to measure flow rates to an accuracy within  $\pm 2$  percent; and
  - (b) maintain the influent and effluent flow meters in proper working order.
32. The Licencee shall:
- (a) ensure that the influent and effluent in-line continuous flow meters associated with the Development each possess an electronic interface device designed to activate flow proportional samplers for collecting composite samples of the influent or effluent; and
  - (b) maintain the electronic interface devices in proper working order.
33. The Licencee shall ensure that:
- (a) each of the influent and effluent lines is equipped with an enclosed and heated structure for the collection of composite samples; and
  - (b) the effluent monitoring station is sized to accommodate the simultaneous set-up and operation of up to two flow proportional 24-hour composite samplers, and equipped with interfaces to the effluent flow metering device whereby at least one of the interfaces is compatible with the departmentally owned ISCO sampler.

**Respecting Monitoring, Record Keeping and Reporting**

34. The Licencee shall submit to the Director (2) sets of as constructed drawings for each project contract associated with the Development, with each drawing stamped 'As Constructed' or 'As Built', within two months of the date of issuance of this Licence for all project contracts already completed, and within two months of the date of completion for any project contracts still being completed.
35. The Licencee shall:
- (a) carry out the monitoring, modelling, interpretation and reporting activities in accordance with the Assiniboine River Monitoring Study approved by the Director on June 29, 1999, or any future approved amendments thereto; and
  - (b) submit, once every six months for the duration of the Assiniboine River Monitoring Study, a progress, data summary and interpretation report on the ongoing monitoring activities and the impact of any calibration refinements made to the WASP river modelling computer program to:
    - (i) the Director;
    - (ii) the City of Portage la Prairie;
    - (iii) the Long Plain and the Dakota Tipi First Nations;
    - (iv) the Rural Municipality of Macdonald;
    - (v) the Whitehorse Plains Community Futures Development Corporation; and
    - (vi) Maple Leaf Meats Inc.
36. The Licencee shall:
- (a) (i) continuously measure and record the daily (each day), the maximum daily, the maximum weekly (cubic metres per week), and the total monthly volume (cubic metres) of influent to the Development to an accuracy within  $\pm 2$  percent; and  
(ii) continuously measure the temperature, in degrees Celsius, of the influent to the Development, and record the daily average temperature versus the temperature specified by the Licencee to Maple Leaf Meats Inc.;
  - (b) on each operating and cleaning day of the adjacent hog processing plant, obtain a composite sample of the influent to the Development and have it analyzed for:
    - (i) chemical oxygen demand (COD);
    - (ii) CBOD<sub>5</sub> (as measured directly or as inferred from the COD result);
    - (iii) total suspended solids;
    - (iv) total kjeldahl nitrogen (as N);
    - (v) total phosphorus (as P); and
    - (vi) oil and grease; and
  - (c) determine and record the daily (each day), maximum daily and maximum weekly influent loadings (kilograms per week) of:
    - (i) CBOD<sub>5</sub>;
    - (ii) suspended solids;
    - (iii) total kjeldahl nitrogen;
    - (iv) total phosphorus; and
    - (v) oil and grease.



37. The Licencee shall:

- (a) (i) continuously measure and record the daily and total monthly volume (cubic metres) of effluent from the Development to an accuracy within  $\pm 2$  percent; and
- (ii) continuously measure the temperature, in degrees Celsius, of the wastewater being released from the anaerobic basin towards the aeration basin, and record the daily average temperature;
- (b) once every week, on the same day that the City of Brandon municipal wastewater treatment facility effluent is sampled, collect a composite sample of the effluent from the Development, and have it analyzed for:
  - (i) pH;
  - (ii) suspended solids (mg/L);
  - (iii) chemical oxygen demand (mg/l);
  - (iv) 5-day biochemical oxygen demand (mg/L);
  - (v) ammonia nitrogen (expressed as mg/L of N);
  - (vi) total nitrogen (mg/L); and
  - (vii) total phosphorus (mg/L);

- (c) once each day at equal time intervals for a minimum of three (3) consecutive days per week, collect a grab sample of the effluent from the Development and have it analyzed for:
  - (i) fecal coliform (expressed as MPN per 100 millilitres of sample); and
  - (ii) total coliform (expressed as MPN per 100 millilitres of sample); and

determine and record the monthly geometric mean for each of the fecal coliform and the total coliform counts based on all the data collected during each month for each coliform type.

- (d) determine and record from Sub-clauses 37(a) and 37(b) of this Licence, the loadings of:
  - (i) ammonia nitrogen (kg/d of N);
  - (ii) total nitrogen (kg/d); and
  - (iii) total phosphorus (kg/d);released to the Assiniboine River on each sampling date.

38. The Licencee shall once every week, on the same day that the City of Brandon municipal wastewater treatment facility effluent is sampled:

- (a) collect a representative grab sample of the Assiniboine River at 18th Street in Brandon and have it analyzed for:
  - (i) field and lab pH;
  - (ii) field temperature ( $^{\circ}\text{C}$ ); and
  - (iii) ammonia nitrogen (mg/L as N); and
- (b) determine the flow rate of the Assiniboine River at the Canada Survey flow rate monitoring station on the Assiniboine River just upstream of the City of Brandon where Canada Highway No. 1 crosses the Assiniboine River.

39. The Licencee shall, during each month, and for each effluent sampling day used in carrying out the requirements of Sub-Clauses 37(b) and 38(a) of this Licence, determine in a manner acceptable to the Director, and record:
- (a) the 100% theoretical assimilative capacity of the Assiniboine River within the receiving area of the river (being affected by ammonia discharges from the City of Brandon municipal wastewater treatment facility, Simplot Canada Limited and the Development), as determined through the use of the Department's ammonia nitrogen mass balance model or the Assiniboine River WASP model, before the Manitoba Surface Water Quality Objective for un-ionized ammonia (as  $\text{NH}_3$ ) is exceeded in the immediate downstream fully mixed zone, as based on the prevailing discharge rates from each of the three ammonia discharge sources and on the prevailing ambient ammonia nitrogen concentration, pH and temperature of the Assiniboine River at 18th Street in the City of Brandon; and
  - (b) the individual and sum total of:
    - (i) the ammonia nitrogen loading (expressed as kg/d of N) released from the Development; plus
    - (ii) the ammonia nitrogen loading (expressed as kg/d of N) allocated by licence to Simplot Canada Limited (Appendix 'C' attached to this Licence) for release to the Assiniboine River on the same day; plus
    - (iii) the ammonia nitrogen loading (expressed as kg/d of N) released by the Licencee from the City of Brandon municipal wastewater treatment facility on the same day.
40. The Licencee shall, under prevailing river flow rates equal to or greater than the 7Q10 flow rate for the period:
- (a) as soon as, and for as long as, the sum total of ammonia nitrogen loadings into the Assiniboine River reaches 90 percent or more of the prevailing theoretical 100 percent assimilative capacity of the Assiniboine River for ammonia nitrogen, and once a week on the same day as the effluent from the Development is sampled:
    - (i) sample the Assiniboine River at the nearest downstream model predicted fully mixed river monitoring station for pH, temperature and ammonia nitrogen, and determine and record the in-situ concentration of un-ionized ammonia (as  $\text{NH}_3$ ); and
    - (ii) measure and record the dissolved oxygen level in the water column of the Assiniboine River at the downstream model predicted location of lowest dissolved oxygen;
  - (b) as soon as, and for as long as, the sum total of ammonia nitrogen loadings into the Assiniboine River reaches 95 percent or more of the prevailing theoretical 100 percent assimilative capacity of the Assiniboine River for ammonia nitrogen:
    - (i) sample the Assiniboine River three times a week (every second day) at the nearest downstream fully mixed river monitoring station for pH, temperature and ammonia nitrogen, and determine and record the in-situ concentration of un-ionized ammonia (as  $\text{NH}_3$ ); and
    - (ii) measure and record the dissolved oxygen level in the water column of the Assiniboine River three times a week (every second day) at the downstream model predicted location of lowest dissolved oxygen; and



- (c) submit the information determined pursuant to Sub-clauses 40(a) and 40(b) of this Licence to the Director as soon as possible.
41. The Licencee shall, once every 3 months until otherwise specified by the Director, and in accordance with the protocol outlined in Environment Canada's "Biological Test Method: Acute Lethality Test Using Rainbow Trout", Report No. EPS 1/RM/13 dated July 1990, or any future amendment thereof, collect a bioassay sample of the effluent from the Development, and have a 75% concentrated sample of the effluent tested for acute lethality.
42. The Licencee shall monitor the leak detection manhole at least once a week for evidence of any leakage of wastewater from the contents of the anaerobic basin through the primary liner of the cell, and record the amount (in litres) of fluid, if any, pumped each week out of the leak detection manhole.
43. The Licencee shall submit monthly reports on the analytical values, and the information determined and recorded pursuant to Clauses 36, 37, 38, 39, 41 and 42 of this Licence, to the Director, in writing and in an electronic format acceptable to the Director, no later than 30 days after the end of the month during which the information was collected or compiled.

#### REVIEW OR REVOCATION

- A. This Licence replaces Environment Act Licence No. 2367 S2, which is hereby rescinded.
- B. If, in the opinion of the Director, the Licencee has failed or is failing to comply with any of the specifications, limits, terms or conditions set out herein, the Director may, temporarily or permanently, revoke this Licence.
- 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.
- D. This Licence will be reviewed and revised prior to or upon the completion of the commissioning period of this Development, and will be replaced with a stage 3 operating Licence for treating wastewater generated by a 1-shift operation of the hog processing facility, for addressing the management of sludge disposal from the anaerobic basin, and for refining effluent discharge limits based new and additional information obtained through the approved Assiniboine River Monitoring Study.

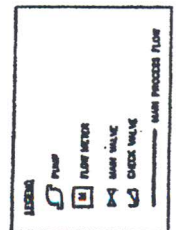
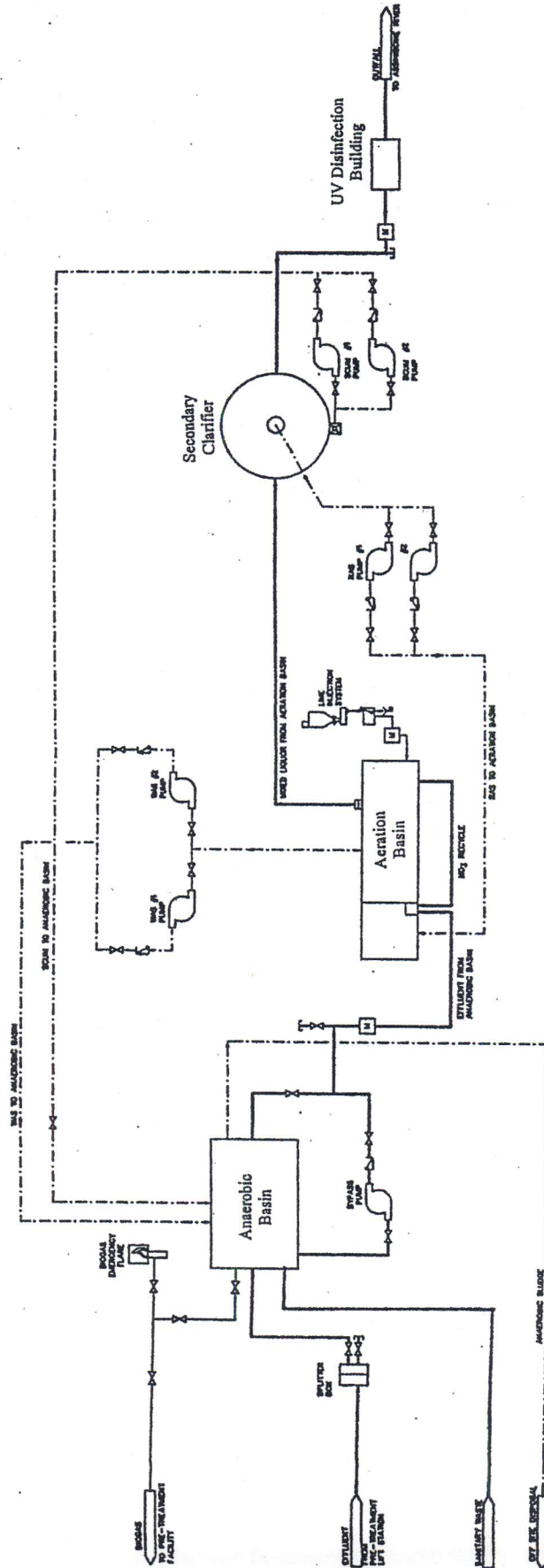


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Larry Strachan, P. Eng.  
Director  
Environment Act

APPENDIX 'A'

Flow Schematic of the Maple Leaf Meats Wastewater Treatment Facility





**APPENDIX 'B'**

7Q10 Flow Rates for the Assiniboine River at Brandon

<u>Month</u>	<u>7Q10</u> (cubic metres per second)
January	6.4
February	6.6
March	4.9
April	7.0
May	6.6
June	5.8
July	5.4
August	4.7
September	4.6
October	4.9
November	5.6
December	6.0

**Note:** The above 7Q10 flow rates for the Assiniboine River at Brandon were developed by the Water Resources Branch in August 1997. This Appendix 'B' may be revised by the Director if and when new information is received from the Water Resources Branch.

APPENDIX 'C'

Total Ammonia Nitrogen Loadings  
Licenced to Simplot Canada Limited for Release to the Assiniboine River  
through Environment Act Licence No. 1535

<u>Period</u>	<u>Ammonia Nitrogen Limits (kilograms per day as N)</u>
January	120
February	120
March	120
April	90
May 1-15	80
May 16-31	0
June	0
July	0
August	0
September 1-15	0
September 16-30	38
October	40
November	50
December	130