

AN ORDER OF THE CLEAN ENVIRONMENT COMMISSION
UNDER THE CLEAN ENVIRONMENT ACT

RE: THE CLEAN ENVIRONMENT COMMISSION and THE TOWN OF NEEPAWA, Applicant,

WHEREAS pursuant to the provisions of The Clean Environment Act, UMA Engineering Ltd. filed a proposal on behalf of The Town of Neepawa in connection with the operation of a wastewater treatment facility, located in the SW 1/4 of Section 35, Township 14, Range 15 WPM in the Rural Municipality of Langford, Manitoba, to treat wastewater from the Springhill Farms Ltd. abattoir, with discharge of effluent via a pipeline to the Whitemud River;

AND WHEREAS in the absence of limits, terms and conditions prescribed by a regulation under the said Act, the proposal was referred to The Clean Environment Commission to prescribe limits, terms and conditions;

AND WHEREAS after giving notice of the proposal and receiving notice of representation, the Commission held a hearing in Neepawa on the 2nd and 3rd days of July, 1986 and issued Order No. 1103 on the 20th day of July, 1986, prescribing limits, terms and conditions;

AND WHEREAS on the 1st day of June, 1987 the Applicant submitted an urgent request for the Commission to grant a temporary suspension to permit immediate discharge of liquid effluent containing higher than the prescribed concentration of ammonia, pursuant to Section 14(8) of the Act and to authorize a variation of the order under Section 14(7) and 14(7.1) of the Act;

AND WHEREAS on the 11th day of June, 1987 the Commission suspended Clause 2(b) (i) of the Order, with conditions, from the 15th to the 28th days of June, 1987, and, on the 25th day of June, 1987, held a hearing in Neepawa to receive evidence and representations;

AND WHEREAS the Commission considered the request for variation on the 26th day of June, 1987;

IT IS HEREBY ORDERED THAT ORDER NO. 1103 BE VARIED TO READ AS FOLLOWS:

1. The Applicant shall discharge all the liquid effluent from the said wastewater treatment facility only through the final discharge point, except such liquid effluent which, in whole or in part, is:

- (a) designated for land disposal by irrigation or land spreading and the applicant carries out these undertakings in compliance with the Clean Environment Act; or

- (b) recycled back to the Springhill Farms Ltd. hog processing plant.

2. The Applicant shall not discharge effluent from the said wastewater treatment facility:

- (a)
 - (i) where the organic content, as indicated by the five-day biochemical oxygen demand is in excess of 30.0 milligrams per litre;

- (ii) where the suspended solids content is in excess of 30.0 milligrams per litre;

where the data relevant to (a) (i) and (a) (ii) have been determined from the analysis of any composite sample collected over any period of 24 consecutive hours;

- (b)
 - (i) subject to (iii), from the 29th day of June, 1987, to the 31st day of December, 1987, where the quantity of total ammonia, as N, discharged during any period of 24 consecutive hours, is in excess of:

<u>Period</u>	<u>Maximum Daily Loading</u>
June 29th to July 31st, 1987	12.3 kilograms
Aug. 1st to Aug. 31st, 1987	12.2 kilograms
Sept. 1st to Sept. 30th, 1987	8.3 kilograms
Oct. 1st to Oct. 31st, 1987	9.1 kilograms
Nov. 1st to Nov. 30th, 1987	13.2 kilograms
Dec. 1st to Dec. 31st, 1987	21.0 kilograms

2. (b) (ii) subject to (iii), on and after the 1st day of January, 1988, where the quantity of total ammonia, as N, discharged during any period of 24 consecutive hours, is in excess of:
- (A) 3.0 kilograms between the 1st day of May and the 31st day of October of any year;
 - (B) 10.0 kilograms between the 1st day of November of any year and the 30th day of April of the following year;

(iii) where the quantity of total ammonia, as N, discharged during any period of 24 consecutive hours, is in excess of such a quantity as may be specified by the Commission at a time when the dissolved oxygen level in the Whitemud River is at or below 47 percent of the saturation level, when sampled at any point between the effluent discharge point of the said operation and the reservoir at Gladstone,

where the data relevant to (b) (i), b (ii) and (b) (iii) have been calculated on the basis of the concentrations (expressed as milligrams per litre) as determined from the analysis of any composite sample collected over any period of 24 consecutive hours, multiplied by the total volume of effluent (as cubic metres) discharged during the same period of time, divided by a factor of 1000;

- (c) where the quantity of nitrate and nitrite as N, discharged during any period of 24 consecutive hours is in excess of,
- (i) 30.0 kilograms between the 1st day of May and the 31st day of October of any year;
 - (ii) 90.0 kilograms between the 1st day of November of any year and the 30th day of April of the following year,

2. (c) where the data relevant to (c) (i) and (c) (ii) have been calculated on the basis of the concentrations (expressed as milligrams per litre) as determined from the analysis of any composite sample collected over a period of 24 consecutive hours, multiplied by the total volume of effluent (as cubic meters) discharged during the same period of time, divided by a factor of 1000;
 - (d) where the analysis of any grab sample collected at any time determines that the concentration of total chlorine is in excess of 0.1 milligrams per litre;
 - (e) where the analysis of any grab sample collected at any time determines the fecal coliform content, as indicated by the MPN (index), is in excess of 200 per 100 millilitres of sample;
 - (f) where the analysis of any grab sample collected at any time determines that the presence of salmonella bacteria is detectable.
3. Subject to clause 4, the Applicant shall:
 - (a) collect composite and grab samples of the effluent discharged at the final discharge point:
 - (i) every 7 days during the period from the date of issuance of this Order to the 31st day of December, 1987;
 - (ii) every 14 days on and after the 1st day of January, 1988;
 - (b) analyze the samples collected pursuant to (a) for the contaminants identified in 2(a), 2(b), 2(c), 2(d), 2(e) and 2(f).
4. The Applicant shall analyze samples of the effluent discharged at the final discharge point, or of any groundwater sampled from monitoring wells located around the said facility, in such a manner and for such additional parameters and characteristics at such frequencies and for such duration of time as is specified in writing by the Commission.

5. The Applicant shall measure the volume of effluent discharged at the final discharge point towards the Whitemud River on a continuous basis to within an accuracy of $\pm 2\%$ by a method of measurement which is satisfactory to the Environmental Management Division, and record the daily volumes of effluent so discharged in cubic metres.

6. The Applicant shall submit the data collected pursuant to clause 3, 4 and 5 to the said Division, in a form acceptable to the Division:
 - (a) subject to (b), within 30 days of the end of the month in which the samples and measurements were taken;
 - (b) from the date of issuance of this Order to the 31st day of December, 1987, on the 15th and 30th of each month.

7. The Applicant shall limit the emission of odours from the said facility to such an extent that the said odour, when sampled at any point of impingement at any residence or commercial site beyond the property line of the said facility, except the premises of commercial operations in existence as at the date of issuance of this Order located on in the SW 1/4 of Section 35, Township 14, Range 15 WPM, is not detectable when the odourous air is diluted with one equal volume of odour free air.

8. The Applicant shall prior to the construction of the dykes for the said facility:
 - (a) remove all organic topsoil from the area where the dykes will be constructed; or
 - (b) remove all organic material for a depth of 0.3 metres and a width of 3.0 metres from the area where each dyke will be built, provided all dykes of the facility are lined with clay as required by clause 9.

9. The Applicant shall construct the said facility in such a manner that all the interior surfaces of each cell of the said facility are underlain with a minimum of 1 metre of clay, measured perpendicular to the face of the interior surface, with the said clay having a hydraulic conductivity of 1×10^{-7} centimetres per second or less.

10. The Applicant shall notify the Environmental Management Division two weeks prior to the completion of construction of the clay liner in the said facility.

11. The Applicant shall either:
 - (a) subject undisturbed soil samples of the clay liners of the completed facility to hydraulic conductivity tests, the number and location of said samples to be specified by a representative of the said Division, up to a maximum of 50 samples; or

 - (b) where undisturbed soil samples cannot be taken, test the soil of 10 interior plane surfaces of the said constructed facility for hydraulic conductivity in a manner satisfactory to the said Division using an in-situ field test method satisfactory to the said Division.

12. The Applicant shall, not less than 2 weeks before the said facility is placed in operation, submit to the said Division the results of the tests carried out pursuant to clause 11.

13. The Applicant shall on or before the 1st day of November, 1986, submit to the said Division a plan for the installation of groundwater monitoring wells satisfactory to the said Division, around the proposed facility, the said wells to be situated and constructed for the purpose of evaluating the gradient, direction of flow and the changes in quality of the groundwater at various depths.

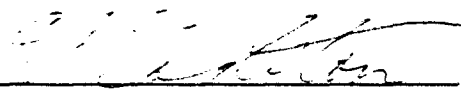
14. Where the Commission deems it advisable to have the effectiveness of any segment or component of the wastewater treatment system established, or to have specific areas of concern investigated, the Applicant shall provide the Commission with such engineering studies, drawings, specifications, analyses of wastewater streams and/or groundwater quality and any other information relevant to waste disposal and wastewater treatment and handling as are requested in writing.

15. With reference to the Neepawa town sewage system located in the NE 1/4 of Section 34, Township 14, Range 15 WPM, the Applicant shall not divert effluent or wastewater from the said wastewater treatment facility to the town sewage lagoon system unless the Applicant files a proposal for such diversion pursuant to Section 14(1) of the said Act.
16. In this Order:
- (a) "final discharge point" means the final effluent sampling point located in the chlorination building of the said facility where the effluent is directed towards the Whitemud River, or any other point designated in writing by the Commission;
 - (b) "composite sample" means a quantity of effluent collected,
 - (i) continually during a sampling period of 24 consecutive hours; or
 - (ii) in such a manner that equal volumes of effluent are delivered into a receptical at equal intervals not longer than one hour during a sampling period of 24 consecutive hours; or
 - (iii) such other sample method designated in writing by the Commission.
17. Order No. 1103 as varied by the Commission is hereby designated as Order No. 1103VC.

Order No. 1103VC

Dated at the City of Winnipeg

this 2th day of July, 1987.



Chairman,
The Clean Environment Commission.

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