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

RE: THE CLEAN ENVIRONMENT COMMISSION and the VILLAGE OF DUNNOTTAR, Applicant,

WHEREAS pursuant to the provisions of The Clean Environment Act, the Village of Dunnottar filed a proposal on the 14th day of February, 1984, in connection with the operation of a sewage lagoon system located in the NW 1/4 of Section 8, Township 17, Range 4, EPM, in the Rural Municipality of St. Andrews, with discharge of effluent once each year, in the fall, east in the ditch along PR 225 and thence north along PTH 9 to Tougela Creek, and on the 15th day of June 1984, a revised proposal was filed, on behalf of the Applicant, indicating the possible use of an alternative discharge route, east in ditches along PR 225 directly to Lake Winnipeg;

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, the Commission received notices of representation from persons likely to be affected by the issuance of a Commission order concerning the said operation;

AND WHEREAS the Commission held a hearing in Matlock on the 8th day of August, 1984;

AND WHEREAS the Commission considered the proposal on the 24th day of August, 1984;

IT IS HEREBY ORDERED THAT

1. The Applicant shall not discharge effluent from the said lagoon system where:

- Note: 30/8/84*
- (a) the organic content of the effluent, as indicated by the five day biochemical oxygen demand, is in excess of 30 milligrams per litre;

1. (b) the faecal coliform content of the effluent, as indicated by the MPN Index, is in excess of 10 per 100 millilitres of sample;
- (c) the total coliform content of the effluent, as indicated by the MPN Index, is in excess of 100 per 100 millilitres of sample.
2. The Applicant shall not discharge effluent from the said sewage lagoon system between the 1st day of November of any year and 15th day of September of the following year.
3. Subject to 1 and 2, the Applicant shall discharge effluent from the said sewage lagoon system towards Lake Winnipeg only via a route consisting of ditches leading east along the right-of-way of Provincial Road No. 225 from the location of the said sewage lagoon system to the ditch along the right-of-way of Provincial Trunk Highway No. 9 and thence north to Tougela Creek.
4. The Applicant shall not discharge effluent from the said sewage lagoon system:
 - (a) when flooding from any cause is occurring along the discharge route;
 - (b) when it will cause or contribute to flooding in or along the discharge route.
5. The Applicant shall maintain and operate the said sewage lagoon system in such a manner that:
 - (a) the release of offensive odours is minimized;
 - (b) the organic loading on the primary cell, as indicated by the five day biochemical oxygen demand, is not in excess of 56 kilograms per hectare per day.
6. The Applicant shall construct the lagoon cells with clay or other suitable material such that all interior surfaces of the lagoon are underlain with a minimum of one metre of soil having a hydraulic conductivity of 1×10^{-6} centimetres per second or less.

7. The Applicant shall notify the Environmental Management Division two weeks prior to the completion of construction of the said sewage lagoon system.
8. Where the sewage lagoon system has been constructed according to clause 6, the Applicant shall either:
 - (a) subject undisturbed soil samples from the completed sewage lagoon cell to hydraulic conductivity tests, the number and location of said samples to be specified by an officer of the Environmental Management Division up to a maximum of twenty samples; or
 - (b) where undisturbed soil samples cannot be taken, test the soil of 2 plane surfaces of the said sewage lagoon cell for hydraulic conductivity by an insitu field test method acceptable to the said Division at locations specified by an officer of the Division.
9. The Applicant shall, not less than 2 weeks before the said sewage lagoon system is placed in operation, submit to the said Division the results of the tests carried out pursuant to clause 8.
10. The Applicant shall, within 8 months of the issuance of this order, carry out a hydrogeological study and prepare a related technical report, copies of which shall be supplied to the Commission and the Environmental Management Division. The hydrogeological study and report shall include but not be limited to:
 - (a) establishing the piezometric surface;
 - (b) determining the type and extent of the aquifer within a minimum of one kilometre of the sewage lagoon;
 - (c) determining the hydraulic gradient and the direction of groundwater flow and any respective seasonal changes;
 - (d) identifying possible locations and types of monitoring wells.

11. The Applicant shall, on or before the 1st day of October, 1985, install a monitoring well system acceptable to the Environmental Management Division with respect to number, location, and design of the monitoring wells.

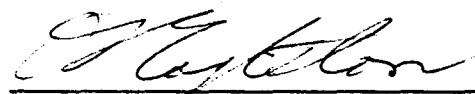
12. The Applicant shall analyze water samples from the monitoring wells referred to in clause 11 on a quarterly basis for nitrate and nitrite nitrogen and total chloride.

13. The Applicant shall report the results of the analyses referred to in clause 12 to the Environmental Management Division within two weeks of the completion of said analyses.

14. The Applicant shall terminate the use of the sewage lagoon within one year of any occasion on which the total nitrate plus nitrite-nitrogen level in any monitoring well was found to equal or exceed 10 milligrams per litre expressed as N.

Order No. 1050

Dated at the City of Winnipeg
this 18th day of September, 1984.



Chairman,
The Clean Environment Commission.

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