APPENDIX D

LETTER - HEBERT TO HUTCHINSON,

AUGUST 16, 1993

Consulting Engineers

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August 16, 1993

Reference No. 4881

Mr. Neil Hutchinson
Ministry of the Environment and Energy
Limnology Section
P.O. Box 39
Dorset, Ontario
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Dear Mr. Hutchinson:

Re: Municipality of Dysart et al
Haliburton Sewage Treatment Plant Expansion

As we discussed, Conestoga-Rovers & Associates (CRA) is preparing the Addendum to the Environment Study Report (ESR) for the Haliburton Sewage Treatment Plant (STP) Expansion. In a facsimile dated July 29, 1993, CRA indicated that some additional modelling runs may be required and would appreciate your assistance in this regard.

In general, CRA requires estimates of phosphorus loadings resulting from projected growth in Haliburton and servicing of the resorts along Highway 121. The STP would discharge a maximum of 0.2 mg/L of phosphorus and tile beds would have a phosphorus retention of 80 percent and 0 percent as you have modelled previously. The basis for these alternatives are all similar except for the location and configuration of the outlets from the STP. The following is an outline of the cases CRA would like modelled:

- Case 1 - Expansion of the existing STP to service the projected growth of Haliburton and service development along Highway 121 with an average design flow of 1933 m^3/d, maximum phosphorous concentration of 0.2 mg/L.

  Discharge is to the Drag River. This is similar to your scenarios 1.2 and 3.2, except for the effluent phosphorus concentrations.

- Case 2 - Same conditions as Case 1, however, discharge is to Grass Lake.

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- Case 3 - The existing STP is expanded to service the growth of Haliburton and service development along Highway 121. The average design flow for the existing STP is 1,231 m^3/d with discharge to the Drag River and the average flow for the new STP is 702 m^3/d with discharge to North Kashagawigamog Lake.

- Case 4 - Same servicing conditions as Alternative 1 however, an entirely new plant is to be built with discharge to North Kashagawigamog Lake. This is similar to your scenarios 5.1 and 7.1, except for the servicing conditions.

- Case 5 - Same conditions as Alternative 1 however discharge is to the Burnt River. This is similar to your scenarios 1.2 and 3.2, except the phosphorus contribution to the lake chain from the STP is removed.

- Case 6 - Same conditions as Case 1 however discharge is to wetlands (Amaleau Lake). Additional wetlands polishing may provide phosphorus concentrations of 0.1 mg/L. This is similar to Case 5 except for the reduced phosphorus concentrations.

As discussed, CRA will be presenting the results of our evaluation at a public meeting on September 3, 1993, therefore your early attention to this matter would be greatly appreciated. In the meantime, please call us if you have any questions or require further information.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Craig D. Hebert, P. Eng.
CDH/cf/1

Encl.

c.c.: Terry O'Neill
Chris Hodgson