Manitoba
Sustainable Development
Environmental Stewardship Division
Environmental Approvals Branch
1007 Century Street, Winnipeg, Manitoba R3H 0W4
T 204 945-8321 F 204-945-5229
www.gov.mb.ca/conservation/eal

Client File 5420.00

April 26, 2018

Dave Bowen
Keeyask Project Manager
Manitoba Hydro
360 Portage Ave (17)
Winnipeg MB R3C 0G8

Dear Mr. Bowen:

Re: Environment Act Licence No. 2952R – Notice of Alteration: Request to Continue Operation and Delay Decommissioning of Start-Up Camp

I am responding to the Notice of Alteration (NoA), dated September 15, 2017, regarding the proposed alteration to Environment Act Licence No. 2952 R issued to Keeyask Hydropower Limited Partnership for the Keeyask Infrastructure Project (KIP). This letter will also acknowledge receipt of the supplementary March 20, 2018 memorandum relative to the requests to continue to operate and increase the organic load on the KIP start-up camp's wastewater collection and disposal system (system). Schedule A to Environment Act Licence No. 2952 R (Licence) applies to this system. The letter and supplementary memorandum are received and reviewed as a single NoA.

The NoA identifies a request to continue to operate the system with an estimated camp population that would increase from the original design population of 125 people to 300 people. The NoA indicates that this would result in an organic loading rate that would increase from the design organic loading rate of 11.25 kg/day to 27 kg/day. These proposed loading rates would continue from now until the anticipated project end date of March 2022. Clause 4 a) of Schedule A to the Licence identifies the 125-person camp population, reflecting what was originally proposed. Similarly, Clause 14 b) of the Schedule A to the Licence currently specifies a limit of 11.25 kilograms of five-day biochemical oxygen demand over any 24-hour period, reflecting what was originally proposed. The NoA also indicates that the maximum daily flow rate to the system will not exceed the limit identified in Clause 14 a) of the Licence: 60 cubic metres over any 24-hour period as was originally proposed.

The March 20, 2018 AECOM memorandum associated with the NoA provided an assessment of the system that included information regarding; site conditions, current groundwater monitoring activities, historic influent flow rates, and assessments of the septic field's hydraulic capacity and organic loading. The memorandum concluded that the existing septic field is operating as

originally designed with no obvious characteristics that would indicate failure of the field following related examinations. The memorandum included mention of some elevated levels of nitrates, chlorides and conductivity in the groundwater monitoring well samples and suggested that such increases are expected near the field. Finally, the memorandum recommended ongoing monitoring of groundwater and other operations-related activities.

Upon review of the NoA and related matters, I have decided pursuant to Section 14(2) of The Environment Act to approve the request for authorization to continue to operate the system and to increase the population limit to 300 people and the limit on the organic loading rate on the system to 27 kilograms of five-day biochemical oxygen demand over any 24-hour period pursuant to the following conditions:

1. The maximum population served by the system must not exceed 300 persons over any 24-hour period.
2. The maximum organic loading on the system must not exceed 27.0 kilograms of five-day biochemical oxygen demand over any 24-hour period.
3. The maximum hydraulic loading on the system must not exceed 60 cubic metres over any 24-hour period.
4. Records of the daily hydraulic loading on the system for each month must be submitted to the assigned Environment Officer within five days of the end of each month.
5. Surface inspections of the septic field of the system for indications of breakout, failure, leakage or ponding must occur at least once during the first week and once during the third week of each month. Efforts must be made to have both dry and wet weather events to be represented in the inspections.
6. Collection of monitoring well samples and analyzing them for ammonia, chlorides, conductivity and nitrates must occur a minimum of once every two months. A brief summary of the results must be provided to the assigned Environment Officer at least once every four months. If concentrations are trending upwards, revisions to related operating limits and requirements may be imposed.
7. Inspections for standing water within the chambers of the septic field via inspection ports of at least two separate lateral pipes of each of the four cells of the septic field must occur:

    a) at least once each month during May thru October inclusive of each year with at least fifteen days separating each such inspection; and

    b) at least once every two months during each period between any November and April of adjoining years with at least thirty days separating each such inspection.

    If standing water exceeds the elevation of the top of any lateral in any inspection port during these or any related inspections, measure the depth of the water and record the date, time, location, and depth of water, noting a reference datum. Re-inspect the same location within between 12 and 24 hours later and record the date, time, and depth of water. If the depth has not changed or is increasing, report this information to the assigned Environment Officer who may then request additional information or associated action.
8. If breakout or leakage from the field is observed at any time, the assigned Environment Officer must be notified immediately and the population of the start-up camp may be

required to be reduced accordingly so as to not cause further or increased breakout or leakage from the field to the satisfaction of the assigned Environment Officer.

9. This authorization is rescinded not later than December 31, 2022.

It is highly recommended that, as early as possible, Manitoba Hydro install septic tank effluent screens in the system to enhance solids removal from the septic tank effluent prior to conveyance to the septic field.

A revised Licence will not be issued.

If you have any questions or would like to discuss these items, please contact Robert Boswick, Environmental Engineer, at (204) 945-6030.

Yours truly,

Tracey Braun, M. Eng.
Director

c. Jodine MacDuff, Manitoba Hydro (jmacduff@hydro.mb.ca)
Don Labossiere/Tim Prawdzik/Jeff Fountain – Environmental Compliance and Enforcement, Manitoba Sustainable Development
Public Registries