



April 23, 2015

Mrs. Terri Fraser, P. Eng
Technical Manager
Northern Pulp Nova Scotia Corporation
P.O. Box 649, Station Main,
New Glasgow, Nova Scotia
B2H 5E8

**Subject: Proposed Provincial Legislation to Close the Effluent Treatment Centre in
January, 2020
KSH Project: 11 1024C**

Dear Mrs. Fraser,

The Nova Scotia Legislature is planning to table legislation forcing the closure of the mill's effluent treatment system, with a permanent closing date of January 31st, 2020. The following is KSH's opinion of what would be required in order for the mill to adapt to this legislation and still meet all provincial and federal effluent discharge regulations in the timeframe suggested by the legislation, keeping in mind that the effluent treatment plant is the property of the Nova Scotia Government.

The single most important issue that needs clarification in this situation is one of jurisdictional responsibility in the design and implementation of a new effluent treatment system. There are two distinct projects within any project that would be aimed at replacing the existing treatment system: the treatment facility itself and the new outfall, which would be required to discharge the treated effluent away from Boat Harbour.

Jurisdictional responsibility for the implementation of the new wastewater treatment system would fall to provincial authorities. The mill would have to demonstrate that the new treatment system would meet new, yet to be determined effluent discharge limits imposed on it by the Industrial Approval (IA) document prior to commencing construction of the system. Specifically, Section 7b) of the IA indicates that if a new treatment system is required, then the conditions set forth in Table 6A of the appendix shall come into force. The problem is that there are many unknown values in that table since both the location of the treatment plant (and more importantly, where the effluent will discharge) and the discharge limits are to be based on receiving water studies. Therefore, time must be allocated at the outset of this project to determine where the proposed effluent system will discharge and then carry out a receiving water study at that unknown location. The iterative nature of this process will require time (months) to answer prior to any other steps taking place.

Federal approval, from Environment Canada, would also be required, as the mill is also subject to the Federal Pulp and Paper Effluent Regulations, but this is not seen as a hindrance to approving the project, as the effluent limits included in the IA are more stringent than the Federal regulations.

Jurisdictional responsibility for the construction of a new outfall falls to both provincial and federal authorities. As is the case for the effluent treatment plant, approval for the land portion of the outfall is under the authority of Nova Scotia Environment. It is unclear at this point what other authorities or jurisdictions would be involved since the pipeline routing has yet to be selected.

In the case of the marine portion of the outfall, this portion of the project would be subject to approval by the Canadian Environmental Assessment Agency (CEAA)¹. Reporting to the Federal Minister of the Environment, this agency oversees the approval of all projects that, among other things, have the possibility to impact Canadian waterways as well as federally regulated resources such as fisheries and marine navigation. The process is well defined, with several in-depth studies required on the possible impact of such a discharge on the various uses of waterways in different conditions and public hearings throughout the process to ensure stakeholder participation and input in the final assessment of the project.

Several federal ministries will be involved throughout the assessment and approval process of the marine portion of the outfall:

- Environment Canada: general oversight and assessment of potential impact on fish and wildlife at the point of discharge;
- Fisheries and Oceans Canada: impact of the construction of the outfall, and of the actual point of discharge, on potential fishery and fish hatching sites, fish and crustacean migration and other similar issues;
- Transport Canada: potential impact of the outfall on the navigability of the waterways, both on a commercial and a leisure point of view; and
- Aboriginal Affairs and Northern Development Canada: potential impact of the project on the Pictou Landing First Nation community.

This process, including public hearings, field studies and accounting for the number of project proponents already identified, would take a minimum of 18 months to complete, but is likely going to take approximately 30 months, considering the relative position of all proponents in this project and the efforts that would be required to find both a scientific understanding of the impact of this new outfall and a consensus between all parties involved that would allow the project to be approved.

Assuming that the Legislative Assembly passes this bill within the next 2 months (prior to the summer recess), this would give the project 54 months (or 4½ years) to complete all required studies, obtain the required approvals for the construction of both the outfall and the treatment system, as well build, commission and start-up the process. Past experience has shown that the start-up of an activated

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sludge wastewater treatment system at a facility that has no experience operating such a system would take approximately 4 to 6 months. When taking into consideration the fact that a start-up in the dead of winter is not a possibility, this would effectively reduce the implementation schedule for the project by a corresponding amount, placing the start-up date of the new treatment system sometime in June 2019.

Given that approval for the outfall will be complex and, to a certain extent, controversial, a time frame of 18 months for the completion of the project, based on a 30-month federal approval period, leaves very little room for contingencies to allow for the proper start-up of the new wastewater treatment plant, while maintaining full compliance with the terms and conditions of the IA.

Should the Nova Scotia Legislature insist on forcing the closure of the existing effluent treatment center ahead of the scheduled end-of-lease date of December 30th, 2030, it is KSH's opinion that the timelines must reflect a 30-month outfall environmental assessment process to ensure that the environmental impact assessment for the construction of the outfall is carried out thoroughly and addresses the concerns of all parties concerned and that the design of the wastewater treatment system is done efficiently, minimizing the environmental footprint associated with its operations, is well integrated to mill operations and that effluent regulations are met at all times.

In our experience from other projects and given the current climate, there is a 50-50 chance of successful completion in order to meet the deadlines presented in this report.

Please let me know if you have any questions.

Sincerely,

KSH Solutions Inc.

Guy Martin
Principal Consultant, Process and Environment