MINISTRY OF ENVIRONMENT INFORMATION NOTE

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PREPARED FOR: The Honourable Terry Lake, Minister of Environment

ISSUE: Air quality and compliance implications of Domtar's decision to shut down A Mill.

BACKGROUND:

On December 13, 2012, Domtar announced that it will permanently shut down its A Mill, effective March 31, 2013. No. 1 RB has been shutdown since October of 2012 due to safety concerns associated with aging equipment.

At the Domtar pulp mill in Kamloops the primary sources that can effect ambient air quality are: the two power boiler stacks at the valley floor, the high (or main stack) that vents on the valley wall to the south of the mill, the effluent treatments ponds, and a number of small sources within the plant.

The vast majority of Domtar's fine particulate emissions come from four pieces of equipment- the two power boilers that vent at the valley floor and the two recovery boilers (RBs) (No. 1 RB and No. 2 RB) that vent up the high stack. The effluent treatment ponds contribute only to the odour-causing emissions normally associated with pulp mills.

Domtar Kamloops has two lines, or mills, that produce two distinct pulp products. A Mill is the smaller line, is powered in part by the No. 1 RB, and produces Kamloops Tyee Kraft utilizing sawdust and shavings from nearby sawmills. B Mill, powered by the No. 2 RB, produces Kamloops Chinook using selected wood chips from the south central interior of British Columbia. B Mill produces significantly more pulp than A Mill.

Of the four boilers, it is the recovery boilers that are the source of the odour-causing emissions normally associated with pulp mills, with No. 1 RB being the most significant contributor of the two. The vast majority of high stack odour-causing emissions come from No. 1 RB. No. 2 RB appears to contribute the vast majority of the total particulate matter.

Domtar's current stack limit for particulate matter concentration is 200 milligrams per cubic metre which will be decreased to 180 milligrams per cubic metre on January 1, 2013. The final emission reduction project currently required by the permit will result in particulate concentrations discharged from the high stack being limited to 90 milligrams per cubic metre, as opposed to 230 milligrams per cubic metre before the reduction schedule began in 2010. This reduction in particulate concentration out the high stack is required to be completed by 2016. These limits were set in 2009 contemplating that both No. 1 RB and No. 2 RB would be operating.

DISCUSSION:

When A Mill is shut down, the emissions of particulate matter and odour-causing emissions (i.e. total reduced sulphur gasses) from No. 1 RB will no longer be emitted from the high stack. Emissions from all other sources will be unchanged.

With A Mill shutdown, there are now two intertwined issues that must be addressed in order for Domtar to comply with its air discharge permit going forward. The permit currently limits particulate matter concentration. While there will be a small decrease in particulate matter emitted into the airshed, there will be an increase in particulate matter concentration from the high stack, resulting in a non-compliance with the current permit.

With regard to odour-causing emissions, the Ministry expects to see a significant decrease in odour-causing emissions from the high stack, which may result in fewer periods when pulp mill odour is noticeable.

While odour is expected to decrease, it is anticipated that Domtar will be out of compliance with concentration limits set in the permit, as emission from No. 2 RB will no longer be diluted by emissions from No. 1 RB, leading to a higher concentration. Domtar completed their 2012 Q4 stack test during the week of December 17 and the preliminary result was 245 milligrams per cubic metre, a non-compliance based on the current permit limit of 200 milligrams per cubic metre.

Another issue is the stepwise reduction of particulate matter concentration discharged from the high stack required by the permit with two upcoming milestones- 180 milligrams per cubic metre by 2013 and 90 milligrams per cubic metre by 2016.

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The shutdown of A Mill will not result in any immediate changes in the ambient monitoring network in Kamloops.

SUMMARY:

The shutdown of A Mill will most likely result in improved air quality and reduced complaints. Regional staff are discussing options with Domtar regarding the permit and the future emission targets set as permit conditions.

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