

CROFTON AIRSHED CITIZENS GROUP

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January 19, 2006

Ministry of Environment
Vancouver Island Regional Office
2080-A Labieux Rd
Nanaimo BC
V9T 6J9

Attention: Bernard Bintner

Re: Permit PA-01902 Amendment

With regard to the proposed draft for the air permit for the Crofton mill as circulated to the Community Advisory Forum, please consider the following comments.

First, it should be noted that there is one very welcome improvement to the permit in the proposed draft in the clear definition of wood waste. This addresses public concerns around the use of demolition and construction waste as fuel and is a definite improvement to the lack of definition in the current permit that has led to use of these materials historically at the mill.

Secondly, the lowered limits for particulate matter are a positive reflection on the technical improvements that have occurred at the mill and are also a measure of environmental progress with limits reduced in the draft from a standard of 230 mg/m³ to 150-180 mg/m³.

The lack of lower concentration limits across the board, however, demonstrates that the permit is not an indication of true progress. Along with the significantly increased flow rates for discharge, this leaves open the question of whether this permit represents an overall improvement. Many issues have been noted with regard to the proposed draft and it is fair to say that the proposal falls far short of what can be considered achievable with the current state of knowledge, technology and concern over toxic air emissions. You are urged to consider these comments with the same gravity with which they are issued and with an eye to some marked improvements in this draft before it is considered for approval.

Main problems with the proposed draft are as follows:

1. Exclusion of Many Substances of Concern

Of great concern is that there are no new substances regulated. The current permit is inadequate in that it only regulates TRS and PM, with reference to other regulations and standards regarding "sulphur content of fuel" and "Canada Wide Standards for dioxins and furans". The latter is merely a non-binding guideline and does not represent regulation limits.

In the draft, there is not one single mention of any other emissions than appear in the current permit. The only exception to this is dioxins and furans monitoring (frequency of monitoring, not limits) which simply refers to the Canada Wide Standard. The Canada Wide Standard specifies annual testing, reverting to bi-annual testing. Such infrequent testing is insufficient to characterize the emission of dioxins, which are highly variable according to Paprican Studies.

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The air emissions inventory for the Jacques Whitford study on the Crofton mill included 106 compounds that are reported to the National Pollution Release Inventory. That study arrived at 4 substances of special concern, none of which are reflected in the mill permit (HCl, NO_x, SO₂, H₂S)

A survey of other facilities demonstrates the widespread inclusion of more comprehensive parameters for similar facilities. These examples are nowhere near exhaustive.

- | | |
|--|---------------------|
| • Sulfur Dioxide | Howe Sound |
| • Nitrogen Oxides | Howe Sound |
| • Chlorine and Chlorine Dioxide from Bleach Plant | Howe Sound |
| • Opacity | Kimberly Clarke, WA |
| • CO | Kimberly Clarke, WA |
| • VOC | Kimberly Clarke, WA |
| • Methanol | Kimberly Clarke, WA |
| • Total Chlorinated HAP (Hazardous Air Pollutants) | Boise Cascade, WA |
| • Chloroform | Boise Cascade, WA |
| • Total HAP | Boise Cascade, WA |

Other parameters (not exhaustive) would include the following included in California standards for wood fired power boilers:

- Total Metals
- Lead
- Formaldehyde
- PCBs
- Dioxins & Furans
- Poly Aromatic Hydrocarbons
- Volatile Organic Compounds

Other substances emitted in quantities that may be of concern (according to the 2004 Jacques Whitford study)

- Ammonia
- Acetaldehyde
- Biphenyl
- Chlorine
- Propionaldehyde
- Tetrachloroethylene
- Dichloromethane
- Chloromethane
- Cumene
- Nickel
- Mercury

Of paramount concern is the Chlorinated HAP's that arise as a direct result of the use of salty hog fuel.

Further, PM 2.5 is emerging as a health risk class of its own. While the Total Particulate Matter may have been reduced, there are no limits on PM 2.5 output.

There is still no characterization of emissions from bleach/chemical plants "Discharges are typical emissions from the bleaching of pulp and manufacture of bleaching chemicals". We know that there are going to be chlorine compounds among a host of other chemicals of concern. This permit amendment should be considering the nature of those emissions and what reasonable limits are for them.

Why does not the permit draft address any of the other known toxic emissions from the mill?

2. Emissions Volume Increase

This proposal anticipates an overall increase in allowable discharge with no lower limits on TRS and some limits disappearing altogether. In total we have an increase in max. allowable discharge of 13%.

This does not consider the indeterminate limits, which make the potential increase much greater than this. For the grouping of the pulp, newsprint machines, maintenance and labs, we go from a max of 21,800 m³/min to "max authorized rate of discharge is indeterminate". This is a significant portion of total emissions.

It is unclear how this permit re-write can be considered an 'improvement' given the above. The rationale is that the mass flow is less, since the concentrations are lower although the volume is higher. The TRS concentrations are, however, not lower - but remain the same in every case throughout the permit (9.2 mg/m³ for recovery boilers, 0.225 for lime kilns, dissolving tanks). We wonder why the recent odor-reduction technology has not lowered the output making a lower limit reachable.

The constant limit with the higher discharge clearly raises the allowable level of TRS emissions from the mill. Although PM limits have been lowered, (as noted earlier), the combination of raised (in fact indeterminately raised) total volumes, lack of inclusion of any other substances, and status quo for TRS levels leaves the equation that would determine that this all results in an 'improvement' impenetrable. Studies document the lack of correlation between particulate matter and some other pollutants so a lowered PM limit does not necessarily infer lower limits on others (i.e. dioxins).

3. Lack of Future Improvement

The current permit includes a clause subjecting the disposal of sludge by incineration to environmental review at the discretion of the regional manager. We have not received any answer on whether this was ever done or what the results were if so. The clause has, nonetheless, disappeared from the proposed permit and it is simply assumed that sludge is fuel for the power boiler. Even in the recently issued Elk Falls mill permit there is a requirement to investigate alternatives. The Crofton permit should include at least this level of undertaking on the mill's part to remove sludge from the power boilers.

There are, in other BC mill permits, clauses that look to future improvements. The proposed draft includes nothing of this nature. The permit should be forward-looking with an eye to future progress. Examples follow:

Howe Sound –

“The Permittee shall submit to the Regional Waste Manager the results of the dioxin/furan monitoring program conducted by the Pulp and Paper Research Institute of Canada Based on the results of the study or other information, the Regional Waste Manager may require additional monitoring and/or pollution control measures to be taken.”

Elk Falls –

Permittee must undertake investigations for reducing the content of NaCl from wood waste for the power boiler, and for the removal of primary and secondary effluent treatment sludge in fuel mix of power boiler. Permittee must undertake investigations for reducing the discharge of metals from emissions of power boiler.

4. Monitoring Regime

There are cases in the proposed draft where the monitoring for substances has decreased in frequency quite inexplicably. While it is understood that there are continuous ambient air monitoring stations, the monitoring directly of specific sources within the mill should not be reduced for a number of reasons – most remarkably the lack of confidence in the placement of the ambient air stations.

Specifically:

- monitoring for sulphur dioxide from recovery boilers goes from 'monthly or semicontinuous' to quarterly;
- TRS monitoring from lime kilns goes from monthly to quarterly.

In addition, the monitoring for dioxins and furans remains of priority concern. As noted above, the testing regime specified in Canada Wide Standards is insufficient since dioxin is highly variable according to Paprican studies. The Howe Sound mill permit is an example of at least requiring the reporting of results and the potential for more testing. It would be highly desirable to see a specified testing regime for dioxins and furans in this permit that reflected the priority concern of organochlorine compound emissions from a mill burning salty hog fuel.

We look forward to your response to these details and an outline of the process that will be followed to integrate comments into the amended permit prior to approval.

Rob Wiltzen
Coordinator
Crofton Airshed Citizens Group

App. Comparison Spread Sheet of Regulatory Limits between Current and Proposed Permits

Cc: Honourable Barry Penner, Minister of Environment
Randy Alexander, Regional Manager of Environmental Protection, Ministry of Environment
Warren McCormick, Meteorologist, Ministry of Environment
Russell J. Horner, Catalyst Paper, President and Chief Executive Officer
Lyn Brown, Catalyst Paper, Vice-President, Corporate Affairs and Social Responsibility
Don McKendrick, Catalyst Paper, Vice President Crofton Division
Michelle Vessey, Environmental Manager, Catalyst Paper Crofton Division
Julie Douglas, Communications Director, Catalyst Paper, Crofton Division
Community Advisory Forum Members
Ray Therrien, Employee
Sherman Power, Employee
Joe Allan, Employee
Kathleen Johnnie First Nation
Kate Miller, First Nation
Jon Lefebure Government
Gary Holman Government
Paul Fletcher, Government
Sharon Andersen Health
Judith Gohn, Health
Donna Brooks, Resident
Carol Donnelly, Resident
Patti Bauer, Environment
Elizabeth White, Environment

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Facility	Current Permit	Proposed	% Proposed of Current
#3 Recovery Boiler			
max discharge	3290 m3/min	4400 m3/min	133.74%
Total PM	230 mg/m3	135 mg/m3	58.70%
TRS	9.2 mg/m3	9.2 mg/m3	100.00%
#4 Recovery Boiler			
max discharge	4960 m3/min	7000 m3/min when #3 & #4 operating; 9000 m3/min when #3 shut down	141.13%
Total PM	230 mg/m3	135 mg/m3 ; (max)	58.70%
TRS	9.2 mg/m3	9.2 mg/m3 (TRS as H2S)? (avg. daily)	100.00%
#4 Power Boiler			
max discharge	4210 m3/min	7000 m3/min	166.27%
Fuel	sludge subject to evaluation	no condition for sludge	
PM	230 mg/m3 (salt free)	180 mg/m3 max; 165 mg/m3 rolling avg of previous 4 consecutive stack tests	78.26%
#5 Power Boiler			
max discharge	2850 m3/min	2850 m3/min	100.00%
PM	165 mg/3 @ 12% CO2	limit disappeared	
Fuel		Oil, Nat gas	
#1 & 2 Lime Kilns			
max discharge	6520 m3/min for lime kilns #1,2, dissolving tanks #1,2,3,4, misc TRS Sources through stacks identified as as 1,2a, 4, 5a, 8,9,10,13,17,18,19,20	6520 m3/min for lime kilns 1,2; recovery dissolving tank #3,4; TRS Emergency Stack; B Seal Tank Vent; Brown Stock Washer Hood A, B; A foam Tank Vent and Seal Tanks Vent	100.00%
Total PM	230 mg/m3 for lime kilns 1,2	150 mg/m3 for lime kilns 1,2	65.22%
dissolving tanks #1,2	0.4 kg/ADUt		
dissolving tanks #3,4	0.2 kg/ADUt	0.2 kg/ADUt/day	100.00%
TRS	0.225 kg/ADUt	0.225 kg/ADUt/day all sources	100.00%
Kraft pulp machines, TMP Pulp Machines, Newspring Machines, Maintenance shops, Lab Ventilation, Fume Hoods, Storage Tank Vents			
max discharge	21,800 m3/min	"Max authorized rate of discharge is indeterminate."	
Bleach and Chemical Plants			
discharges are typical of emissions from the bleaching of pulp and manufacture of bleaching chemicals	"3030 m3/min	60 m3/s = 3600 m3/min	118.81%
Secondary Effluent Treatment Sludge			
	The disposal of secondary treatment sludges by incineration is subject to an evaluation by MOE. Based on the results of this evaluation, the Mgr may request an alternate disposal method		

Total Discharge Current = 27,710 m3/min ; Proposed = 31,370; Proposed =113.21% Current