



Bulkley Valley - Lakes District Airshed Management Plan

COMMUNITY ACTION PLAN *for* CLEAN AIR

A five-year strategy

5



OTHER REGULATED INDUSTRIAL SOURCES

For full report, see www.cleanairplan.ca

LAST UPDATE: JUNE 1, 2006

Other Regulated Industrial Sources

5.1 Background

Two “stack emission” sources were identified within the Clean Air Plan geographic scope - NEWPRO and LB Paving, both located in Smithers. Emphasis is being placed on assisting NEWPRO in 2005 and 2006, both because the Smithers plant manager has been an active participant in the planning process and because of the profile NEWPRO has in the community as a major employer and source of emissions. Further efforts to determine the level of assistance that LB Paving will be evaluated as part of our work plan development.

As major mills in the area close down their beehive burners, emissions from replacement operations will also be evaluated and if necessary, action plans developed for reducing emissions. Pacific Inland Resources became the first BVL D mill to close down their beehive burner in July 2005.

Northern Engineered Wood Products Inc (NEWPRO) converts over 50 million kg of wood waste from local sawmills, otherwise destined to their beehive burners, into a value added composite panel product. Two Heil dryers are used to reduce the moisture content of the sawdust and planer shavings as part of the manufacturing process. A permit (PA-6099) issued by the Ministry of Environment, under provisions of the Environmental Management Act regulates emissions from both dryer stacks. Annual compliance testing is performed on the two dryer stacks in accordance with the Ministry stack sampling protocol. Visual monitoring, with the aid of a webcam is used to regulate the effects weather conditions in the Bulkley Valley have on the visible dryer stack emissions. Extensive upgrades relating to reducing emissions (listed below) have been completed since 1995.

NEWPRO currently operates on a continuous production schedule at full capacity. Lack of a guaranteed fiber supply has limited the company’s ability to expand or increase production. NEWPRO, in partnership with the Town of Smithers, the Office of the Wetsuweten and West Fraser, has recently secured a Community Forest License in the Bulkley Valley.

LB Paving operates two hot mix asphalt plants throughout the paving season which runs from May to November, weather permitting. McCall Environmental performs Annual Compliance Testing on the following LB Paving manufacturing plants. The Koering 3000lb Batch Plant is a stationary plant located in the LB Paving pit in the Town of Smithers. The plant is fueled with natural gas and produces 70 tonnes of paving asphalt per hour. It operates intermittently during the paving season and is comprised of:

- Tower section complete with screen deck
- Bucket elevator
- Drum dryer
- Cyclone System

The Boeing Mobile Plant has been located in the same pit between Smithers and Telkwa for 3 years. It can move to other sites as work dictates. It operates intermittently through out the paving season and is comprised of:

- 1987 BMG wet scrubber
- Drum Dryer
- 1986 Bomega storage tank
- 1988 Bomega silo
- 2001 Cat Generator

This plant is fueled with propane and produces 100 tonnes of paving asphalt per hour. Emission controls are provided by a Venturi wet wash system and contained settling pond.

5.2 Significance of Source to Ambient Air Quality and Public Health

In the 2002 Emissions Inventory for the BVL D Airshed, permitted sources other than beehive burners were calculated to contribute 16% of Total Particulate Matter, 23% of PM10, and 16% of PM2.5.

Annual reports of stack samples are available for NEWPRO's outside dryer stacks. An updated emissions characterization is needed and when this is available, a statement on the composition of emissions (VOCs – condensable organics and PM10) can be included in the Plan.

5.3 Relevant Regulations and Community Plans

Provincial and federal regulations covering air quality in general include all sources of particulate matter.

The Ministry of Environment is responsible for designing and enforcing emission permits and works with NEWPRO to ensure compliance.

Annual compliance testing is performed on the two dryer stacks (one indoor, one outdoor) in accordance with permit PA 0069, issued under the provisions of the Environmental Management Act. The analyses shall include the following parameters:

- a) Gas volumetric flow rates, gas moisture and gas temperature.
- b) Total particulate matter and condensable concentration.
- c) Total gaseous non-methane organics concentration.
- d) Formaldehyde concentration

All finished products are tested to ASTM D5582 for emissions as part of the Composite Panel Association Grademark Certification program.

Plant air quality is tested annually as part of Workers Compensation regulations.

At present, there are no municipal by-laws or clauses in the Official Community Plan that are directly relevant to emissions from this source.

5.4 Emission Reduction Efforts to Date

NEWPRO (Northern Engineered Wood Products Inc.)

- Installed real time Web Cam monitor in Control booth (2005)
- Updated Greens Dryer Combustion Control (2003)
- Installed High Efficiency Cyclone on Greens Dryer (2002)
- Installed a Web Cam on a ridge located on Viewmont Road (approx. 2001)
- Installed Rock Trap Closed Loop Cyclone (2000)
- Installed New High Capacity Baghouse on Sander Pneumatic System (1999)
- Installed Closed Loop Cyclone on Main Fuel Bin (1999)
- Redirected 1st Pass Saw line waste to #3 Baghouse via Flaker vent cyclone (1997)
- Exhausted Flaker Vent Cyclone through # 3 Baghouse (1997)
- Redesigned Inside Energex Combustion Chamber/Combustion Control (1997)
- Installed Dual High Efficiency Cyclones on Inside Dryer (1995)

LB Paving efforts have included:

- A new Standard-Havens Baghouse filter system as a replacement for air pollution abatement components (2000)

5.5 Goals, Indicators and Strategies

The following section applies to NEWPRO exclusively.

Goals for improving local Air Quality through reduced emissions:

- To reduce the number of days industry emissions affect local air quality.
- To prevent dryer emission test failures (as per EMA permit requirements)

Indicators to mark progress towards goals:

- Emission characterization results
- Annual test results
- Number of voluntary Outside Dryer shutdown days.

BVLD AIRSHED MANAGEMENT PLAN

Strategy	Additional Comments	Project Team	Budget	Timeline
Annual emissions inventory reporting and meeting.	Annual emission inventory report to be reviewed and ensure that testing parameters, metrics, and results can be cross-referenced with permits and Clean Air Plan for compliance. Add in graphs to show emission levels.	MoE permit compliance staff Manager for NEWPRO BVLDAMS facilitator or Board member.		MoE to provide reference document by November 1, 2005.
Determine emissions characterization and develop recommendations.	The 1st stage will be to research industry standards on equipment and emissions of panelboard plants in Canada and US. The second stage is to compare NEWPRO to these standards. Results from this study will be used to develop recommendations on how to manage emissions.	NEWPRO		December 31, 2007
Improve processor to sharpen image on the web from the webcam		NEWPRO		
Voluntary shut down plan of outside dryer on inversion days, including stockpile plan. Reducing moisture content by changing wetting procedures to reduce dryer time.	Dryer is an independent operation and doesn't affect staffing levels. Shutdown can be for a maximum of 4 days at a time and may also be based on visibility in town. Assess storage capacity.	MoE NEWPRO		September 2006
Investigate option for mobile monitor placement for NEWPRO and West Fraser.	Does St. Joe's monitor reflect what is happening at NEWPRO? Should we test this out with the mobile monitor?	MoE NEWPRO		September 2006
Community education on emissions	Is there an operational component to blue haze – heating levels that are related to energy sources and costs? Emissions are related to oils and tannins being dried. Totally related to weather – November is the worst. Opacity reading basics: steam vs pollution. VOCs occur naturally even from standing trees.	BVLDAMS Communications Team NEWPRO MoE		Add into Strategic Communications Plan; implement by September 2006

5.6 Tools and Resources

Recommendations for information on implementation of strategies include:

Alberta Clean Air Strategic Alliance www.casahome.org

Monitoring and characterization data is most pressing need.