



Chapter 4: Beehive Burners 2009 Addendum

Chapter 4 of the BVLD Clean Air Plan deals with the sawmill industry. It recognizes the importance of the sawmill industry to BVLD communities, and provides some goals and strategies to reduce emission sources from this industry by focussing on shutting down Tier 1 beehive burners, and reducing emissions from all beehive burners. It proposes some strategies to reduce the number of burners in operation, as well as the emissions from all burners. Table 4.1 describes the strategies that have implemented over the past five years, and Table 4.2 reports back on the two indicators listed in the Table 4-2 of the Plan.

Table 4.1: Update of Strategies Implemented 2004-2008

Goals	Strategies
<p>1. Eliminate Tier 1 and reduce or eliminate Tier 2 beehive burners from the Plan area</p>	<p>Support green energy and value-added proposals.</p> <p>All three Tier 1 beehive burners within the BVLD airshed have been replaced with value-added alternatives since 2004, and the AMS has done what it can to support these initiatives.</p> <p>West Fraser Mills (WFM) in Smithers (Pacific Inland Resources) now uses material that was previously burned at the Smithers burner to provide fuel (hog) for its Eurocan Pulp Mill in Kitimat, and for an energy system in Smithers that provides heat for its sawmill, planer mill, and kilns for drying lumber.</p> <p>WFM's Houston mill also now has an energy system in place and the remaining previously-burned materials are being shipped to Eurocan and other West Fraser operations around Northern B.C. A more up-to-date solution is being researched for WFM's Houston operation. Despite BC Hydro's "Call for Power" in recent years for alternate means of producing electricity, the BC Hydro cost structure still limits initiatives like Eurocan's ability to produce power with their steam plant.</p> <p>Canfor Houston built a pellet plant and an energy system in 2007 to consume on-site fibre residue and occasionally residue from other mills.</p> <p>Help divert wood debris from existing beehive burners to value-added alternatives.</p> <p>The AMS continues to support initiatives that divert wood from beehive burners. The Province of B.C. (& BC Hydro) has requested proposals for alternate means of power generation and the AMS remains hopeful that such a solution will replace inefficient burner operations with high efficiency incineration of material, likely for the production of electricity.</p> <p>In April 2008 the AMS assisted in the organization of a Wood Residue Workshop to facilitate</p>

	discussions relating to the diversion and use of woody debris. To assist in the implementation of alternatives the AMS also completed a woody debris inventory in 2009 which included the development of a database inventory of available woody debris. The final report also includes an overview of available markets based on the volumes being produced i.e. local, community-based markets for small generators versus large scale industrial markets for large generators. This is further discussed in the Chapter 6 Addendum.
2. Reduce emissions from all beehive burners	<p>Promote existing industry efforts to reduce emissions, and shut down burners during air quality episodes.</p> <p>See strategies described under Goal 1 above</p> <p>In addition, while the three Tier 1 beehive burners were still in operation, the Ministry of Environment worked with WFM and Canfor to create and implement voluntary shut-down plans for use during air quality episodes. This has not yet been done for Tier 2 burners.</p>

Table 4.2: Indicator Results

Goals	Indicators
1. Eliminate Tier 1 and reduce or eliminate Tier 2 beehive burners from the Plan area.	<p>Number of operating Tier 1 and Tier 2 burners.</p> <p>The AMS is proud to say that the three Tier 1 beehive burners (two in Houston and one in Smithers) have been shut down and there are no longer any active Tier 1 burners in the BVLVD Airshed. Fortunately, despite the current forest economic climate, none of the burner closures were the result of mill closures.</p> <p>Two active Tier 2 burners still exist greater than 5km from Burns Lake at Babine Forest Products (BFP) and Decker Lake Forest Products (DLFP). A third burner is still active at Cheslatta Forest Products (CFP) on the north shore of Ootsa Lake. With respect to the Babine Forest Products and Decker Lake Forest Products burners, a whitewood extraction system installed in 2008 at both sites has diverted a significant portion of the sawmill and planer mill waste material previously burned. This whitewood waste material is currently transported off site and used by the wood pellet manufacturing facility in Houston.</p> <p>A pellet plant is in the final stages of approval at the Babine Forest Products mill. It is expected this plant will be operational by late 2010. Wood waste material generated by the sawmilling process at both Babine Forest Products and Decker Lake Forest Products will be primary feedstock for this plant, allowing for the eventual phase out of the Tier 2 burners at both locations. Wood waste material generated by local harvesting, land clearing and other similar activities will be a secondary feedstock for this plant.</p>
2. Reduce emissions from all beehive burners	<p>Number of beehive burner operating days in the Plan area.</p> <p>Prior to development of the Clean Air Plan (2002), the six beehive burners operated on most weekdays, shutting down only for holidays and repairs/maintenance (typically between 15 and 50 days per year). By 2008, the three Tier 1 burners were gone, and Tier 2 burners operated a total of 228 days (133 days BFP, 95 days DLFP and unknown for CFP).</p>

Prior to implementation of the Clean Air Plan, the 2002 micro emissions inventory estimated that beehive burners contributed 17% of the total PM_{2.5} emissions in the BVLVD Airshed. Although there hasn't been a recent update to the inventory, current emissions from beehive burners in the airshed are known to be substantially less. As was the case with Prince George data for 1991-2003, however, ambient air quality data does not conclusively show improvements in air quality that are strongly correlated with beehive burner shutdowns. This suggests that other sources contribute significantly to ambient air quality in BVLVD communities; however, more data is needed for a proper comparison before any conclusions can confidently be made.

Future Direction:

The AMS intends to continue supporting local industry efforts to become more efficient and find alternative (value-added) uses for their wood fibre. Where possible the AMS will continue to support industry to find these alternatives in advance of the 2016 provincial phase-out date for Tier 2 beehive burners.