

**Skeena Stikine Forest District**

**Burn Plan for Smoke Management**  
**in the**  
**Bulkley, Kispiox, Cranberry, and Cassiar**  
**Timber Supply Areas**

**Effective Date: April 1, 2005**

**Term of Plan: Two (2) years**  
**Expiry Date: March 31, 2007**

**Approved by:**

---

**Barry Smith,**  
**District Manager,**  
**Skeena Stikine Forest District**

---

**Jim Hofweber**  
**Environmental Protection Manager,**  
**Skeena Region, Ministry of Environment**

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>3</b>
<b>1.1</b>	<b>SCOPE.....</b>	<b>4</b>
<b>1.2</b>	<b>PURPOSE.....</b>	<b>4</b>
<b>2.0</b>	<b>SMOKE SOURCES UNDER FOREST SERVICE MANDATE .....</b>	<b>5</b>
<b>3.0</b>	<b>GENERAL STRATEGIES FOR SMOKE MANAGEMNT .....</b>	<b>6</b>
<b>4.0</b>	<b>MANDATORY PRACTICES FOR EFFECTIVE SMOKE MANAGEMENT .....</b>	<b>6</b>
<b>5.0</b>	<b>TSA SPECIFIC STRATEGIES.....</b>	<b>9</b>
<b>5.1</b>	<b>THE BULKLEY TIMBER SUPPLY AREA .....</b>	<b>9</b>
5.1.1	<i>SENSITIVE TIME PERIODS.....</i>	<i>9</i>
5.1.2	<i>MANAGEMENT ZONES: .....</i>	<i>9</i>
<b>5.2</b>	<b>KISPIOX, CRANBERRY, AND CASSIAR TIMBER SUPPLY AREAS .....</b>	<b>12</b>
5.2.1	<i>SENSITIVE TIME PERIODS.....</i>	<i>12</i>
<b>6.0</b>	<b>MONITORING AND AMENDMENTS .....</b>	<b>13</b>
<b>7.0</b>	<b>DATA COLLECTION FORM .....</b>	<b>14</b>

### APPENDICES

<b>APPENDIX 1 :</b>	<b>SMOKE IMPACT CATEGORY A/B (as per the OBSCR) .....</b>	<b>175</b>
<b>APPENDIX 2 :</b>	<b>TIPS FOR OPEN BURNING .....</b>	<b>16</b>
<b>APPENDIX 3 :</b>	<b>OPEN BURNING REQUIREMENTS.....</b>	<b>18</b>
<b>APPENDIX 4:</b>	<b>CUSTOM VENTING INDEX SERVICE.....</b>	<b>19</b>
<b>APPENDIX 5:</b>	<b>CONTACT NUMBERS .....</b>	<b>21</b>

### TABLES

Table 1 :	Smoke Sources under MOF Mandate as per the Wildfire Act and Regulation.....	5
Table 2 :	Bulkley TSA Category 3 & Resource Managemnt Daily Burning Guidelines Matrix for the High-Smoke-Sensitivity Zone .....	10
Table 3 :	Bulkley TSA Category 3 & Resource Managemnt Daily Burning Guidelines Matrix for the Low-Smoke-Sensitivity Zone .....	11

### MAPS

Map 1:	Bulkley TSA Smoke Management Zones.....	12
--------	---	----

## **1.0 INTRODUCTION**

The Ministry of Forests (MOF), Skeena Stikine Forest District, is mandated through the Wildfire Act and Regulation to manage and regulate the fire activities (open burning) of individual citizens, agriculture and the forest industry on provincial forest lands. The Ministry of Environment (MOE) has the mandate to regulate smoke emissions from open burning under the *Environmental Management Act* (EMA) and the *Open Burning Smoke Control Regulation* (OBSCR). MOE uses Environment Canada (EC) generated venting and weather information to regulate where and when burning is permitted within timber supply areas (TSA). Licensees and the public are responsible for obtaining current information and making appropriate burning decisions.

This plan is considered a ‘burn plan’ under the OBSCR sec. 8 (1) of schedule B. This means that the venting requirements in this plan supersede the venting requirements of the OBSCR. It is important to note that this plan is intended to be used as a guide and in most cases the requirements of this plan were developed to complement and assist the OBSCR and not to add extra policies or requirements. In addition to following this burn plan, persons planning to conduct open burning should review and comply with the OBSCR and sections of the Wildfire Act and Regulation relating to open burning. It should be noted that this plan is intended solely for the purpose of pollution<sup>1</sup> prevention. The plan should not be construed as a means of promoting the burning of logging residues, beyond what is strictly required for fire and pest hazard abatement.

This plan may be amended at anytime in order to update legislation or changes in policy.

---

<sup>1</sup> Pollution is defined as ‘the presence in the environment of substances or contaminants that substantially alter or impair the usefulness of the environment’, (source Environmental Management Act).

## 1.1 SCOPE

This plan encompasses all of the Timber Supply Areas in the Skeena Stikine Forest District, which include the following:

- Bulkley
- Kispiox
- Cranberry
- Cassiar

The individual TSAs will be covered in separate sections.

## 1.2 PURPOSE

The purpose of this plan is to try and mitigate the negative impacts of smoke on human health and visibility throughout the Skeena Stikine Forest District. This will be accomplished by:

- Identifying smoke sensitive areas in each of the TSAs.
- Identifying which categories of fires require a **Burn Registration Number (BRNs)** from MOF
- Identifying dates on which critical public events occur.
- Identifying open burning guidelines (mandatory and additional).
- Identifying the maximum # of open burns (resource burns) that may occur per day depending on certain weather conditions.

## **2.0 SMOKE SOURCES UNDER FOREST SERVICE MANDATE**

**Table 1: Smoke Sources under MOF Mandate, as per the Wildfire Regulation**

<b>Back yard burning:</b> These types of fires do not require a person to acquire a burning reference number or submit a burn plan. When an air quality advisory is issued by MOE, fires are to be extinguished <b>voluntarily</b> , where possible and ignition of new fires should be avoided (voluntary). Note: Often, air quality advisories are issued simultaneously with MOE Burn Bans, in which case many kinds of open burning are prohibited (requirement). See the OBSCR for details (Appendix 1).			
<b>Category</b>	<b>Description</b>	<b>Burn Registration #</b>	<b>Burn Plan Required</b>
1	means an open fire that burns piled material no larger than 1m in height and 1 m in diameter and includes a campfire that burns such material;	No	No
2	means an open fire that (a) burns material in one pile not exceeding 2 m in height and 3 m in width, (b) burns material concurrently in 2 piles each not exceeding 2 m in height and 3 m in width, or (c) burns stubble or grass over an area that does not exceed 0.2.	No	No
<b>Industrial/Agricultural Burning (Large Open Fires):</b> These categories of burn require persons or licensees to acquire a burning reference number before igniting the fire. These are typically machine piles or windrows created to dispose of waste material.			
<b>Category</b>	<b>Description</b>	<b>Burn Registration #</b>	<b>Burn Plan Required</b>
3	means an open fire that burns (a) material concurrently in 3 or more piles each not exceeding 2 m height and 3 m in width, (b) material in one or more piles each exceeding 2 m in height or 3 m in width, (c) one or more windrows, or (d) stubble over an area exceeding 0.2 ha.	Yes	No
		Report pile #s to MOE	
Resource Management Open Fire	means an open fire that (a) burns stubble or grass over an area that exceeds 5 ha, (b) burns unpiled slash over an area of any size, or (c) is not a category 1, 2, or 3 open fire and is lit, fuelled or used for silviculture treatment, forest health management, wildlife habitat enhancement, fire hazard abatement, ecological restoration or range improvement	Yes	No
		Report pile #s to MOE	

**NOTE:** You are required to call **1-888-797-1717 (toll free)** to obtain a **Burn Registration Number (BRN)** if your burning falls into **category 3 & Resource Management Open Fires**.

### **3.0 GENERAL STRATEGIES FOR SMOKE MANAGEMENT**

1. The designated burn co-ordinator **must** notify Navigation Canada (flight services) of potential smoke hazards throughout the burning season. Licensees (emitters) will notify the Airport Flight Services office, (Navigation Canada) advising of where burning is likely to occur, on days of ignition. Flight Services (Smithers Airport) will then notify pilots in the area of potential hazards due to potential limited visibility.
2. Only **one** 40ha Resource Management Open Fire per day is permitted in the high smoke sensitivity zone.
3. For Resource Management Open Fires >40ha, Ministry of Forests approved Burn Plan is required.
4. Broadcast burns must prioritize the protection of populated areas, highway corridors, and air navigation safety, through targeting **suitable wind and atmospheric conditions**.
5. Open burning of debris must not be initiated or new material added if atmospheric mixing is insufficient to provide rapid dispersion of smoke emissions or if the air flow will cause the smoke to negatively impact on a nearby population or cause pollution. Please note that ventilation indices normally drop to Poor after sunset.

### **4.0 MANDATORY PRACTICES FOR EFFECTIVE SMOKE MANAGEMENT**

- A. Prior to initiating open burning, the designated burn co-ordinator must ensure proper venting conditions. This can be done by:

1. Calling the Air Quality Information Line toll free at 1-888-281-2992. This recorded message will be updated daily by 7am and indicates whether or not it is acceptable to either initiate an open burn or add material to an existing open burn. This line will also indicate if there is a **burn ban**<sup>2</sup> in place.
2. Environment Canada Website:

[http://www.weatheroffice.pyr.ec.gc.ca/wxhealth/smoke/forecast\\_e.html?Smoke=YYD](http://www.weatheroffice.pyr.ec.gc.ca/wxhealth/smoke/forecast_e.html?Smoke=YYD)

The ventilation index is calculated by multiplying the mixed layer height by the average wind speed in this mixed layer. Stronger wind speeds and thicker mixed layers will produce higher ventilation index values. For convenience, the actual numbers are converted to a scale of 0 to 100.

The Environment Canada ventilation index in British Columbia and Yukon is divided into the following categories;

0 - 33 - POOR  
34 - 54 - FAIR  
55 - 100 - GOOD

---

<sup>2</sup> Burn bans may be put in place by the Environmental Protection Manager, Ministry of Water, Land and Air Protection for the purposes of pollution prevention or abatement.

Ensure that the Ventilation Index is "good" on the day you start the burn and forecast to be "good" or "fair" on the following day (see the regulation for further information and requirements);

<b>TODAY</b>	<b>TOMORROW</b>
<b>4:00 PM</b> Venting Index (VI) day of planned ignition of burn.	<b>4:00 PM</b> Venting Index (VI) forecast for day following ignition of burn
Good	Good or fair

This interpretation of the Venting Index Forecast for burn initiation is consistent with the OBSCR, provided that a Burn Ban under the EMA is not in effect.

\*\*A favourable Smithers Environment Canada forecast applies to the entire Bulkley TSA.

**B.** With an unfavourable Smithers Environment Canada forecast one of two options may be considered:

1. A Spot forecast<sup>3</sup> by Environment Canada may be purchased **or**
2. A forecast may be developed by a qualified meteorologist, who is approved by the Environmental Protection Manager, Skeena Region (MOE).

These approved methods will meet OBSCR venting index requirements.

**"ventilation index"** means the forecast ventilation index prepared using Environment Canada data and approved by a manager or a forest official.

The above mentioned alternatives are also worthy of exploration when;

1. a burn location is above the existing and forecast mixing heights as displayed on the EC website or on the Air Quality Information Line or;
2. When the burn location is near the northern or southern boundary of the TSA, a more favourable forecast may be provided.

No category 3 and Resource Management Open Fires will be conducted within two days prior to a sensitive time period, within the high-smoke- sensitivity zone. Refer to the specific section under each TSA.

**C.** For areas where no publicly available **Venting Index** (VI) forecast is available, the following options are available:

1. A Spot forecast by Environment Canada may be purchased **or**
2. A forecast may be developed by a qualified meteorologist, who is approved by the Environmental Protection Manager, Skeena Region (MOE).
3. A test burn, lasting no more than 60 minutes from start to finish of smoke release, using material representative of that to be burnt. This can be used to assess local weather conditions and their ability to disperse smoke.

These approved methods will meet OBSCR venting index requirements.

**D.** Category 3 and Resource Management Open Fires require a **Burn Registration Number** throughout the year (regardless of whether winter burning conditions are in effect or not)

**-Call toll free 1-888-797-1717.**

---

<sup>3</sup> For spot forecasts phone 1 (900) 491-1530, need to provide elevation, aspect and lat /long. There is a fee of \$25 for a faxed report.

- E.** All those who conduct Category 3 Open Fires (**Debris Piles**) are required to collect at a minimum data regarding:
1. Location and date of burn
  2. Number of piles burned
  3. Weather during burning
  4. Smoke outcomes

The data collected should be returned to the Environmental Protection Division, Ministry of Environment, Skeena Region by December 31 of the year the resource burning was carried out. (see section 6.0 Monitoring and Amendments and section 7.0 for an example of the data collection form).

#### **Additional Practices**

- A.** Sunrise and sunset times will be used as an indication of when to light. The intent is to take advantage of the pattern of increasing mixing height as the day progresses, while accounting for the pattern of decreasing number of “good venting” hours on a daily basis, as the fall progresses.

#### **RULE OF THUMB:**

**Ignition can start 2 hours after sunrise and finish 4 hours before sunset.**

- B.** For Resource Management Open Fires: Broadcast burns within the high smoke sensitivity zone will be limited to one prescribed burn per day. The MOE will ensure measures are taken to achieve smoke management objectives, as regulated by Wildfire Regulation.

**Licensees will consult with MOE representatives when planning broadcast burns within the High Smoke Sensitivity Zone.**

- C.** Utilize local surface winds to move smoke away from higher smoke sensitive areas and avoid adding smoke to an already smoke filled drainage within the High –Smoke-Sensitivity Zone (**HSSZ**). If local winds or air currents move the smoke into a higher Sensitivity rating area, the guidelines for that sensitivity area should be followed.

**Note:** All other conditions of the OBSCR still apply to all open burns (e.g. set-back distances, initiation of burns under poor local air flow, duration of burns, etc).

- D.** Licensees (emitters) conducting Category 3 & Resource Management Open Fires will supply MOE with the number of piles to burn and proposed burn dates at least 1 working day prior to light up.
- E.** Licensees (emitters) will notify the Airport Flight Services office (Navigation Canada) advising of where burning is likely to occur, on days of ignition. Flight Services (Smithers Airport) will then notify pilots in the area of potential hazards due to potential limited visibility.

## **5.0 TSA SPECIFIC STRATEGIES**

### **5.1 The Bulkley Timber Supply Area**

#### **5.1.1 SENSITIVE TIME PERIODS**

Following is a list of sensitive time periods within the High Smoke Sensitive Zone (map #1),

- May, July, August and September long weekends
- Smithers Midsummer Festival (third week in June)
- Smithers Fall Fair (third weekend in August)
- Telkwa BBQ (Labour Day Weekend)

No category 3 and Resource Management Open Fires will be initiated within two days prior to the start and during these smoke sensitive time periods.

#### **5.1.2 MANAGEMENT ZONES:**

For the purposes of this plan, the Bulkley Timber Supply Area has been broken down into two management zones. The classification is based on:

- proximity to communities or rural residences,
  - known geographic barriers to smoke drift, and
  - the prevailing wind direction.
1. **High-Smoke- Sensitivity Zone:** is comprised of the lands falling south and west of the Babine Mountains range and a 5 km radius surrounding the communities of Fort Babine and Smithers Landing (see map #1).
  2. **Low-Smoke-Sensitivity Zone:** is comprised of the lands falling north and east of the Babine Mountains range, excluding the 5 km radius surrounding Fort Babine and Smithers Landing (see map #1).

## High-Smoke-Sensitivity Zone

The objective in this zone (see map #1) is to identify specific weather conditions where open burning may take place while providing for the protection of human health in populated areas of the TSA. If a major tenure holder wants to burn more piles per day than their allocated amount, they should consult with the other licensees and ensure the combined total does not exceed the daily total as listed in table 2.

**Table 2: Bulkley TSA Category 3 and Resource Management Daily Burning Guidelines Matrix for the High-Smoke-Sensitivity Zone**

<b>Burn Periods are from 2 hours after SUNRISE to 4 hours before SUNSET (see section 4.2)</b>		
	<b>Upper Winds (based on location of piles relative to population centre)</b>	
<b>Venting Day1/Day2/Day3</b>	<b>Away from Population Centre***</b>	<b>Toward a Population Centre***</b>
<b>good/good/rain**</b>	<b>No Daily Total</b>	<b>No Daily Total</b>
<b>good/good</b>	Daily Total = 1275 piles* PIR= 900 piles BCTS = 350 piles Kyahwood = 25 piles	Daily Total = 425 piles PIR = 300 piles BCTS = 100 piles Kyahwood = 25 piles
<b>good/fair</b>	Daily Total = 800 piles PIR= 550 piles BCTS = 225piles Kyahwood = 25 piles	Daily Total = 225piles PIR= 150 piles BCTS = 50 piles Kyahwood = 25 piles

**\*Pile Size is now defined as 10 m X 10 m which is a more realistic measure.**

**Note this size is 2.2 times less volume than the legal definition of 15m x 15m as in Wildfire Regulation**

\*\*Interpreted as 80% or greater chance of precipitation from EC webpage or broadcast forecast

\*\*\*Population Centre

(Moricetown, Smithers, Telkwa, Fort Babine, Smithers Landing, Hazelton and Houston)

**Low-Smoke-Sensitivity Zone**

The objective in this zone is to identify specific weather conditions where open burning may take place while providing for safe aircraft navigation. If a major tenure holder wants to burn more piles per day than their allocated amount, they should consult with the other licensees and ensure the combined total does not exceed the daily total as listed in table 3.

**Table 3 : Bulkley TSA Category 3 and Resource Management Daily Burning Guidelines Matrix for the Low-Smoke-Sensitivity Zone**

Smithers flight services **847-2035** is able to provide light aircraft cloud ceiling height information for the Smithers area. They also receive pilot reports for other areas that can be quoted on the phone.

**For the 6 week fall burning season (Sept 1 to Oct. 15) MOE will co-ordinate putting cloud ceiling height information on our Air Quality Hotline (toll free at 1-888-281-2992).**

<b>VENTING Day1/Day2/Day3</b>	<b>Cloud Ceiling</b>	
	<b>&lt;1000m or &gt;2000*m</b>	<b>1000-2000m</b>
<b>good/good/good</b>	<b>No Limit on Daily Total</b>	<b>NOTIFY AIR CHARTERS<sup>6</sup></b> Daily Total = 650 piles** PIR= 475 piles BCTS = 150 piles Kyahwood = 25 piles
<b>good/good or good/fair</b>	Daily Total = 1275 piles PIR= 900 piles BCTS = 350 piles Kyahwood = 25 piles	<b>NOTIFY AIR CHARTERS<sup>6</sup></b> Daily Total = 650 piles PIR= 475 piles BCTS = 150 piles Kyahwood = 25 piles
<b>fair/fair</b>	Daily Total = 350 piles PIR= 250 piles BCTS = 100 piles Kyahwood = 25 piles	<b>NOTIFY AIR CHARTERS</b> Daily Total = 225piles PIR= 150 piles BCTS = 50 piles Kyahwood = 25 piles

\* 2000 meters = approx. 6500 ft

**\*Pile Size is now defined as 10 m X 10 m, which is a more realistic measure.**

**Note this size is 2.2 times less volume than the legal definition of 15m x 15m as in Wildfire Regulations**

## 5.2 Kispiox, Cranberry, and Cassiar Timber Supply Areas

### 5.2.1 SENSITIVE TIME PERIODS

Following is a list of sensitive time periods within the High Smoke Sensitive Zone (map #1),

- May, July, August and September long weekends
- Kispiox Valley Rodeo (June 3-5, 2005)
- Kispiox Valley Music Festival (July 22-24, 2005)
- Pioneer Day (August 13, 2005)
- Gitksan Cultural Days (August 20-21, 2005)
- Gospel Mountain Music Festival (August 19-21, 2005)

No category 3 and Resource Management Open Fires will be initiated within two days prior to the start and during these smoke sensitive time periods.

Sensitivity Zone Rating	Venting Index Conditions on day of Ignition		Ignition Guidelines
	Day ONE	Day TWO (forecast)	
<b>High</b>	Good	Good <i>or</i> Fair	Unrestricted burning in compliance with the OBSCR and local Municipal Bylaws
		Poor	
	Fair	Good <i>or</i> Fair <i>or</i> Poor	No ignition (OBSCR)
Poor	Good <i>or</i> Fair <i>or</i> Poor		
<b>Low</b>	Good	Good <i>or</i> Fair	Unrestricted burning in compliance with the OBSCR
		Poor	Unrestricted but observe local air flows; If the Venting Index (VI) drops to the Poor category for three consecutive days, no further ignition of piles can occur until Venting Index (VI) conditions improve to at least Fair.
	Fair	Good <i>or</i> Fair	

## **6.0 MONITORING AND AMENDMENTS**

Data collected annually by persons conducting open burning and possibly by a contract meteorologist during resource burning periods will be maintained and evaluated to;

- Supply relevant smoke dispersion information,
- Refine the boundary between the sensitive and non-sensitive zones,
- To adjust the tables and guidelines contained in this plan as needed and
- To provide increased knowledge of local conditions.

A standardized format, to ensure consistent data collection is attached in section 7.0.

This plan shall be in effect twelve months of the year as of **April 1, 2005 and valid until March 31, 2007**. Review of the plan including the tables will be completed prior to expiration.



**APPENDIX 1:**  
**SMOKE IMPACT CATEGORY A/B (as per the OBSCR)**

**The *Open Burning Smoke Control Regulation* of the Environmental Management Act divides the province into two broad categories (A or B) of smoke impact.**

**Category A:** Any place in B.C. where smoke could have a high impact on human populations as designated in *Schedule 1 of the Open Burning Smoke Control Regulation* as a *Category A* area. For the purposes of this policy (OBSCR) Category A areas under the regulation are every city, town and village as defined in the Municipal Act.

**Note: If open burning is planned in Category A areas, municipal bylaws also apply.**

**Category B:** Every place in B.C. that is not a Category A area is designated as a Category B area.

**Links:**

**Environmental Management Act**

***Open Burning Smoke Control Regulation***

[http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/145\\_93.htm](http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/145_93.htm)

**Wildfire Act and Regulation**

<http://www.for.gov.bc.ca/tasb/legsregs/wildfire/wildfireact/wildfire.htm>

## APPENDIX 2: TIPS FOR OPEN BURNING

- **Piles should preferably be seasoned.** This helps to ensure a hotter fire, more efficient burning and decreased smoke emissions.
- **Piles should be clean.** Piles should contain minimal dirt, sand or gravel.
- **Consider using an approved fire accelerant on ignition.** Examples include petrogel, diesel fuel and/or a propane torch. The accelerant you choose should ensure efficient and rapid ignition. Large amounts of smoke tend to be released during slow start ups because the pile has not reached a high enough temperature to burn efficiently.
- **Take advantage of weather for smoke dispersion.** Wait a few hours after sunrise before igniting piles, and stop lighting piles a few hours before sunset-this helps to take advantage of the typically better weather for smoke dispersion during the day.

### *Burn Plans for Smoke Management*

Skeena Stikine Burn Plan for Smoke Management  
&  
Nadina Forest District Burn Management Plan

Signed off by Ministry of Forests  
Define smoke sensitive time periods  
Smoke Sensitive and Non-Smoke Sensitive Zone Management Practices  
Smoke Management Strategies

Both are available online at <http://wlapwww.gov.bc.ca/ske/skeair/reports.html> or by calling the Ministry of Environment at (250) 847-7260, Skeena-Stikine Forest District (250) 847-6300 or Nadina Forest District (250) 692-2200. Other regulatory information on open burning is also available at that web site or by calling those offices.

### *How does smoke from open burning cause pollution in locations far away?*

Air flows during the day tend to carry smoke up valleys and mountain slopes. At night, this pattern is reversed, and smoke can flow back down to valley bottoms, where it has the potential to pollute low lying communities. This mountain/valley flow system can occur over distances large enough that fires burning in seemingly remote locations can have far reaching air quality impacts. This “back and forth” motion of an air mass can persist for extended periods, resulting in smoke from multiple days of burning accumulating in a single mass of air.

Complex terrain such as that found in Skeena Region also tends to increase the frequency and strength of inversion formation. Inversions are a shallow layer of stable air near the surface that tend to form on clear, sunny days with calm winds. Smoke from fires within the inversion layer becomes trapped and is unable to disperse.

To reduce smoke impacts caused by these situations, burning should take place on days with high mixing heights and significant wind speeds (the Ventilation Forecast incorporates these conditions). Winds should be blowing away from the direction of any communities or residences, and care should be taken when smoke has the potential to affect air and ground traffic safety.

### **Alternative Waste Reduction Strategies:**

Alternative waste reduction strategies do exist. The following are some examples:

- A. Process trees at the stump.
- B. Scatter and cover debris beside the road vs. piling during road construction.
- C. Have skidders return large debris back to the block (Coarse woody debris).
- D. Suggest Chipping or Mulching vs. Piling and Burning. (Costs will be the limiting factor here)
- E. Provide for not burning piles if:
  - i. Piles left for wildlife habitat (i.e. large diameter, long material and <75m from timber).
  - ii. Deemed non-combustible after 2 years (i.e. fines have fallen out)
  - iii. Small piles (taking up little productive ground) remaining in wet sub-zones.
  - iv. Public Access is restricted or non-existent and:
    - Where productive ground is not lost (i.e. plantable or prepared)
    - Where piles are on non-productive surfaces (i.e. landings > 30m from timber)

## APPENDIX 3: OPEN BURNING REQUIREMENTS

### Open Burning Requirements

After province-wide consultation, the B.C. government proclaimed the *Open Burning Smoke Control Regulation* in 1993. It applies to fires for purposes such as land clearing, silviculture, forestry, wildlife habitat enhancement, and domestic range improvement. The intent of the regulation is to reduce smoke emissions and impacts without requiring an Air Emission Permit from the B.C. Ministry of Water, Land and Air Protection (MOE).

An Air Emission Permit is ***not required*** for open burning of debris on a parcel of land, provided ***all*** of the following conditions are met:

- ✓ there are no open burning restrictions in effect (see Burning Restrictions section);
- ✓ favourable weather exists for smoke dispersion (see Required Atmospheric Conditions section);
- ✓ prohibited and/or noxious materials are not burned (see Prohibited Materials section);
- ✓ debris is burned on land it originated from;
- ✓ all other reasonable options (reduce, re-use, and recycle) have been pursued before burning;
- ✓ open burning is conducted greater than 100 metres from neighbouring residences and businesses and greater than 500 metres from schools, hospitals, and continuing care facilities;
- ✓ smoke emissions will not pose a visibility hazard to airports or highways;
- ✓ the burn complies with any applicable municipal, regional district, or improvement district bylaw that is more restrictive than the regulation;
- ✓ open burning is conducted in accordance with the *Forest Practices Code of B.C.*;
- ✓ for cities, towns, and villages:
  - the smoke release period must not exceed 72 consecutive hours
  - no open burning has occurred on the parcel of land at any time during the preceding 15 days
  - smoke may be released during open burning on a parcel of land no more than 4 separate occasions during a calendar year
- ✓ for areas other than cities, towns, and villages:
  - the smoke release period must not exceed 96 consecutive hours

## APPENDIX 4: CUSTOM VENTING INDEX SERVICE

Dear Open Burning Operator,

### Re: Custom Venting Index Forecasting Services for 2005 / 06

My name is Ben Weinstein and I am the Air Quality Meteorologist for the Ministry of Environment (MOE) in Smithers. I am writing to inform you of a renewed service that MOE is offering to help you meet the venting requirements for burning under the Open Burning Smoke Control Regulation (OBSCR), the 3-day site specific custom venting index forecasting service.

As you are aware, Environment Canada issues a two-day venting forecast each morning at 7:00 AM. In some cases a two-day venting forecast is not adequate, and a three-day venting forecast can better meet the needs of burn operators. This is especially true in the Skeena Region (and the Vanderhoof Forest District) where, because of complex topography and meteorology, the venting forecasts Environment Canada issues for Burns Lake, Smithers, Terrace and Stewart do always apply to locations outside those communities. For this reason, site specific venting forecasts are a significant improvement in protecting against pollution while opening up more days for resource management and land clearing debris burns.

My experience with custom venting forecasts dates back to October 2003 and since then I have issued numerous forecasts for all areas of Skeena Region and the Vanderhoof Forest District. Results to date demonstrate that this service does, while protecting human health through the reduction of air quality impacts from open burning, offer increased opportunity and flexibility for operators burning in accordance with the OBSCR.

There is a procedure to follow to get things under way. To properly meet your needs I will need to have your

- Burn Registration Number,
- lot location (latitude / longitude, UTM coordinates or lot number),
- approximate elevation and
- number and size of piles.

If you send this information to me I will be happy to notify you when the venting is sufficient to open burn at your location. Forecasts will be issued no later than 5:00 PM for the next three days. Should you not have email access I can call you with a forecast or fax it to a specified number. Remember though that if you want a forecast for the next day I will need your specific details by 11:00 AM.

This service is available Monday through Saturday during the Fall Burning Season and Monday through Friday during all other times of the year. It is in addition to options already in place, including:

- Environment Canada's Public Venting Forecasts for Burns Lake, Smithers Terrace and Stewart  
(1-888-281-2992 or <http://MOEwww.gov.bc.ca/epd/epdpa/venting/venting.html>),
- Environment Canada's Spot Venting Forecast  
(call 1-250-491-1544 to set up an account and then 1-900-565-2255 to obtain spot venting forecasts. There is a fee of \$25 per forecast and you will need to provide longitude, latitude, elevation and aspect) or a
- Test Burn  
(as per outlined in the Open Burning Smoke Control Regulation only).

Using the custom venting forecast service does not in any way limit your ability to use these other options. If at any time the custom forecast service is not available, please use whichever other option is most appropriate.

**Please note that you must always call 1-888-281-2992 before igniting piles or adding debris, to determine whether the Environmental Protection Director (as defined in the**

**Environmental Management Act) has issued any burn restrictions under the OBSCR. Alternatively you can be added to an email notification list to be informed of any burn restrictions.**

Use of the custom venting service does not in any way relieve you, the burn operator, from your duty to meet the requirements of the OBSCR. Due diligence in preventing pollution should always be practiced. For more information refer to your local Forest District's Smoke Management Plan or contact me (at the details below).

Continued operation of this service is facilitated through a partnership between MOE and licensees in the region; **there is no cost for calling**. Once again, the aim is to provide a viable three day alternative to Environment Canada's two day forecasts, while reducing impacts on air quality from open burning and offering increased opportunity for operators burning in accordance with the OBSCR. Please do not hesitate to take advantage of this service.

Sincerely,

---

Ben Weinstein

**Benjamin Weinstein, BSc.**  
**Air Quality Meteorologist**  
**Ministry of Environment**  
Box 5000, 3726 Alfred Avenue  
Smithers, B.C. V0J 2N0  
phone: 250.847.7224  
**toll free: 1.866.362.4986**  
fax: 250.847.7591  
Ben.Weinstein@gov.bc.ca

## **APPENDIX 5:** **CONTACT NUMBERS**

### **Ventilation Index**

#### **1) MOE Air Quality Information Line for Skeena Region (1-888-281-2992):**

- MOE burning restriction and air quality advisory information-indicated on phone line by location and only when in effect;
- Venting conditions and how to interpret them (Ventilation Zones are defined above and on the Information Line)-updated 7 days a week by 7:00am;
- Regulatory information (Open Burning Smoke Control Regulation);
- Air quality conditions (not required to open burn)-updated Monday to Friday by 9:00am.

#### **2) Environment Canada Voice Recording: 1-866-640-6369 (\$0.95 per minute)**

#### **3) Environment Canada Web Page:**

[http://nat.weatheroffice.pyr.ec.gc.ca/forecast/textforecast\\_e.html?Bulletin=fpcn39.cw/w](http://nat.weatheroffice.pyr.ec.gc.ca/forecast/textforecast_e.html?Bulletin=fpcn39.cw/w)

#### **4) Environment Canada Spot Forecast:**

**Call 1-900-565-5555**

to set up an account (\$25 fee per faxed report) and to obtain spot forecasts (need elevation, aspect and lat/long of burn)

#### **5) MOE Smithers Office (1-250-847-7260)**

- Burn Permit applications;
- Regulation interpretation;
- Reporting regulation violations;
- General air quality enquiries.

Service available 8:30 am to 4:30 pm, Monday-Friday.

### **Reporting Violations**

- MOE Smithers Office Monday-Friday 8:30 am to 4:30 pm at 1-250-847-7260
- Weekends, evenings, and holidays 1-800-663-3456.

### **Alternatives to Burning**

- BC Recycling Hotline 1-800-667-4321.

### **Weather, Air Quality, and Open Burning Information On The Web**

- MOE Skeena Region Air Quality: <http://wlapwww.gov.bc.ca/ske/skeair/reports.html>
- Ministry of Forests: <http://www.gov.bc.ca/for/>
- Environment Canada: <http://www.weatheroffice.com>

### **Other Related Agencies**

- **Nav. Canada Flight Services Centre (250) 847-2035**
- **Skeena Stikine Forest District (250) 847 - 6300**