



Regional Board Report

TO: Regional Board

DATE: September 5, 2006

SUBJECT: Air Quality Committee Recommendations Re: Venting Index and Moving the Allowable Open Burning Time

RECOMMENDATION:

THAT Regional District of Central Okanagan Smoke Control Amendment Bylaw be given first, second and third readings, reconsidered and adopted.

AND FURTHER THAT Regional District of Central Okanagan Fire Prevention & Regulations Bylaw be given first, second and third readings, reconsidered and adopted

VENTING INDEX

At the April 26, 2006 Air Quality Committee meeting the Air Quality Committee recommended that the Regional Board approve the following resolution:

“THAT the Air Quality Committee recommends to the Regional Board that the venting index be raised to 65 from 55 to become effective in the fall 2006 (fire prevention bylaw to be amended).”

General:

The Venting Index (VI) is one of the best regulatory tools used to protect Central Okanagan residents from the impacts of smoke due to open burning. The Venting Index is an estimate of how well smoke released into the atmosphere will be carried away from the surface during the afternoon. Open burning is only allowed in the Central Okanagan when the Venting Index is in the “Good” range. The current ventilation index guidelines are:

POOR Venting: Ventilation index of 0-33
FAIR Venting: Ventilation index of 34-54
GOOD Venting: Ventilation Index of 55-100

The Regional Air Quality Committee recommends raising the Venting Index from 55 to 65 in order to improve air quality and compensate for a design flaw in the way the Venting Index was developed.

The Venting Index was designed for fires on level ground and not for fires in cold valleys such as the Okanagan Valley. This design flaw has meant that smoke released during marginal venting periods (VI of 55 to 64) has not been able to vent out of the valley effectively. To

alleviate this problem the Regional Air Quality Committee recommends that the Venting Index be raised to 65 before open burning is allowed within the Regional District of the Central Okanagan.

It is to be noted that the number of burning days lost due to this regulatory change will be negligible, since the open burning season has been extended in the fall and spring where the majority of the Venting Index days are in the 65 or greater range.

The Fire Chiefs in all the Central Okanagan fire protection zones have agreed to this change.

MOVING THE ALLOWABLE START TIMES FOR OPEN BURNING

At the August 30, 2006 Air Quality Committee meeting the Air Quality Committee recommended that the Regional Board approve the following resolution:

“THAT the Air Quality Committee recommend to the Regional Board the following:

- 1. In the fall, burning should not be allowed before 12:00 p.m. (noon);*
- 2. In the spring, burning should not be allowed before 10:00 a.m.*
- 3. No new material should be added to a fire within 3 hours of sunset;*
- 4. All fires should be thoroughly extinguished by sunset.*

AND THAT the appropriate bylaws be amended to affect these amendments;

AND FURTHER THAT these recommended changes be forwarded to the Regional District of Okanagan Similkameen and North Okanagan Regional District Air Quality Committees for consideration in order to harmonize burning regulations throughout the valley.”

General:

The Regional Air Quality Committee recommends moving the allowable start time for open burning within the Regional District of Central Okanagan from 7:00 a.m. to: in the fall 12:00 p.m. (noon) and in the spring 10:00 a.m. in order to improve air quality in the region.

As well, it is recommended to change the regulations when new material can be added to a fire from 5:00 p.m. to within 3 hours of sunset. This will allow approximately 4-8 hours of burning time (depending on the time of year), which is adequate for dry and properly piled material.

All fires should be concluded by sunset is included in the current Fire Prevention Bylaw (7i).

Moving the allowable start time to later in the morning will allow for improved venting conditions to move smoke away from the land's surface. This strategy was developed due to a citizen's complaint about an early morning open burn, which created extensive smoke that impacted their neighbourhood.

Background

The Venting Index (VI) is one of the best regulatory tools used to protect Central Okanagan residents from the impacts of smoke due to open burning. The Venting Index is a forecasted estimate of how well smoke released into the atmosphere will be carried away from the surface during the afternoon. Open burning is only allowed in the Central Okanagan when the Venting Index is forecasted to be in the “Good” range. Open burning is only regulated using the

afternoon Venting Index, since the morning indices are characteristically poor. Typically the Venting Index steadily improves as the surface temperature of the earth increases throughout the day.

Unfortunately the venting index is typically poor on cold mornings throughout the burning season in the Central Okanagan, which causes smoke to pool near ground level in the vicinity of an open burn. Setting later start times for open burning will allow for venting conditions to be better when a fire is started so that smoke build-up is limited in the area of the burn. The current allowable start time for open burning is 7:00am. It is to be noted there is a stop time (sunset) for burning due to typically poor venting conditions seen almost every evening in the Central Okanagan.

The Ministry of Environment was consulted on this strategy and their meteorological air quality staff has provided their recommendations for open burning start times using historical temperature and venting index data for the Central Okanagan. The following are recommended start times for open burning provided by the Ministry of Environment:

1. In the fall, burning should not be allowed before noon.
2. In the spring burning should not be allowed before 10:00 AM

To date no written comment has been received from agriculture or the fire departments regarding changes to open burning times.

The Air Quality Committee meeting minute discussions of April 26, June 28 and August 30, 2006 are attached for review.