

DELEGATION REQUEST

Name of person speaking: Alan Murphy

Organization you are representing: Valley Comfort Systems

Primary purpose of the organization: Manufacturer of wood stoves and inserts

Number of members: 76

Mailing address:

1290 Commercial Way
Penticton, BC V2A 3H5

Contact name: Alan Murphy

Subject matter: To provide information regarding proposed wood stove regulations.

Specific request of the regional district, if any (i.e. letter of support, funding): A chance to be heard.

Requested meeting date: August 13, 2019

Audio-visual equipment needed: None



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July 29th 2019

Reference: Proposed changes to wood stove legislation.

Introduction:

My name is Alan Murphy. I am the President of Valley Comfort Systems, a manufacturing company located in Penticton, BC. We manufacture wood heating appliances under the brand name Blaze King. We currently employ 76 people and have annual revenues of \$15,000,000.00 including exports of \$9,000,000.00. Blaze King is recognized as a world leader in clean burning high efficiency wood stoves.

It has come to our attention that council is looking to set policy on the future sale of wood stoves with a view on controlling or reducing the level of particulate material in the Courtney air shed.

We all agree that higher levels of particulate matter in the atmosphere is not good and has adverse effects on people's health, especially people who are compromised with respiratory illnesses or other groups such as elderly people and very young children. We are all affected by atmospheric conditions and want to be a part of a long term plan in sustaining clean air for all.

Some groups have proposed a ban on the sale of wood stoves. We believe that this would have little to no effect in reducing particulate matter in the air-shed. I hope the information and arguments set out below will help council make a balanced decision that will reduce particulate in the air, maintain a healthy economy, and protect the most vulnerable in our society.

This is not an issue where a simple approach will achieve the shared goals of all involved. Below I have set out concerns, observations and some potential solutions to help council achieve its goals.

Current studies:

Wood stoves are not the only source of fine particulate matter in the atmosphere. Several other significant sources include the trucking and transport industry, forestry, agriculture, open-source burning, construction, road dust and forest fires.

According to a study performed for the Comox Valley Regional District, *Particulate Matter Emissions Inventory for the Comox Valley 2015 Base Year Final Report RWDI # 1700243* dated March 17, 2017, there were several notable sources of Particulate matter in the atmosphere.

"Fugitive road dust is estimated to contribute 92% of the total PM, 78% of the PM10, and 46% of the PM2.5 in the region". Road dust sources were excluded from the emission summary.

When excluding road dust sources from the emission summary, "the key sources of TPM in the region are open burning (48%), and space heating (25%), followed by agricultural (10%) and mobile (9%) sources. Industrial sources make up less than 1% of the TPM in the region". "Space heating includes natural gas, propane gas and pellet sources of heating."

Methodology:

I also have a concern on the methodology used in the most recent studies. Emission levels and efficiencies of wood stoves were taken at their 2005 and 2011 levels. The use of these studies, in the future planning or management of the air shed, is of limited use due to the dramatic technology improvements achieved by the Wood Stove Industry. These studies need to be updated to take into account the emission levels of current wood stoves.

Longevity:

Wood stoves and open fireplaces have a very long life span. Wood stoves can have a life span of 30 to 50 years while open fireplaces can last for the lifetime of the house. No meaningful reductions in particulate emissions generated by wood stoves and open fireplaces will be achieved if the existing stock of older non-certified stoves and open fireplaces is allowed to remain in place. Any reduction of the sale of new wood stoves will have little to no effect on the air-shed for the foreseeable future, as it does not tackle the source of the problem, older non-certified stoves and open fireplaces.

New technologies:

Current studies of particulate matter in the air shed are out-dated and do not take into account the huge changes that have already taken place in wood stove design. Prior to 1998 there were no controls on the amount of particulate a wood stove could emit. These stoves are termed non-certified. It is estimated that a non-certified wood stove had the potential to emit 60 grams of particulate matter, or more, per hour. Between 1998 and 2015 the allowable grams emissions for a wood stove, as certified to the then new US Environmental Protection Agency (EPA) regulations, was 7.5 grams per hour. Between 2015 and 2020 this level was reduced to 4.5 grams/hour. The maximum allowable level will be further reduced to 2 grams/hr and under on May 15th 2020.

Real world performance:

The notion that wood stoves do not perform in the real world as they did in the laboratory is false. New test methods are designed to mimic real world experiences. Proof of this is where Blaze King has tested and certified its wood stoves to some of the strictest testing criteria in the world, the Ultra Low Emissions Burner (ULEB) tests in New Zealand. This is by far the strictest test any wood stove has to overcome. The ULEB test requires the use of randomly selected cord wood and all tests are conducted as a consumer would operate the stove. To pass a stove must be under 0.5 grams of particulate per kilogram of fuel consumed and have a minimum efficiency of 65%. This is a very high bar to cross. Blaze King's Sirocco 30 recently passed the certification at 0.25 grams per Kg of cord wood burned. To put this in perspective the same stove achieved 0.7 grams per hour on the EPA 2020 certification test, well under the new requirement of 2 grams/hr. The unique thing about the NZ test is that there is no control over the moisture content of the wood. The moisture content of the wood during our NZ test was 25%. This demonstrates that a Blaze King wood stove can achieve the same very low emission levels in the real world.

Emissions:

Some wood stoves have been performing at close to 50% lower than the 2020 EPA maximum allowable emissions since 1989. Blaze King recently launched the cleanest burning, most efficient wood stove in North America - the Princess PE32. The Princess PE32 achieved a remarkable 0.4grams/hr of particulate emissions. That's a 99.3% reduction in emissions over a non-certified stove or an 85% reduction over a current EPA certified wood stove. Other manufacturers are following suit and are producing ultra clean wood stoves.

Efficiencies:

Most wood stoves tested to the 2015 EPA standards had an efficiency rating of 63%. Today's generation of wood stoves are in the high 70% and low 80% level. This puts the efficiency of a modern wood stove equal to that of a modern gas or pellet heater. These improvements in efficiencies mean a 2020 approved stove will consume up to 30% less wood when compared to a current stove.

History:

There is a very deep rooted tradition in BC of heating your home with a wood stove. Most wood users live in rural or semirural areas and these people tend to be fiercely independent. Heating your home with wood is seen as a right. Part of the decision in purchasing a wood stove is that you will still be able to heat your home when the grid fails....in many people's views - not if. When most needed natural gas, pellet or electric would not be available for use. Remember we live in an active earthquake zone and we are overdue for the big one.

Responsible Wood Burning

The wood stove industry has been revolutionised in the last few years. Improvements in technology mean that a modern wood stove certified to the new 2020 performance standard is as efficient and clean as any heating appliance, wood, gas or pellet. Restricting the sale of new wood stoves would be like banning all cars from the roads because of some old 80's belching diesel car. We need wood stoves as we need cars. The best way forward is to replace the older stock of non-certified wood stoves and to stop the use of open fireplaces.

Bioenergy:

Wood is a 100% renewable bioenergy fuel. As trees grow, they consume the carbon that was released by a wood stove thus burning wood in an efficient manner neither adds to nor takes from the carbon in the atmosphere. A wood stove carbon cycle is a closed loop.

Other fuel sources:

Banning the sale of wood stoves will push customers into purchasing other types of heating appliances such as natural gas, propane gas, electric or pellet appliances. All of these fuel types of energy sources have their own unique constraints and concerns.

Demographics:

People who use wood stoves are generally divided into two categories. The first of these is people living in more rural communities where services are limited and prone to interruption. The second are the lower income segments of our communities for whom every penny counts. Wood as an energy source is still reasonably priced. To remove the choice to purchase a wood stove affects less affluent communities far more than wealthier communities. All residents of Vancouver Island live in an area where it is harder and harder to make ends meet. The cost of housing is making ownership almost unattainable for a significant number of people. Rental costs are skyrocketing as is the cost of food. People are being pushed to their limits and a restriction on the sale of new wood stoves is one more cut to the people who least can afford it. The cost of running a gas fireplace or electric heating is significantly more when compared to the cost of running a wood stove.

Jobs:

Wood is a local industry giving local jobs. Our forestry sector needs more support than ever. Wood, as an energy source, adds a small but important arm to keeping sustainable jobs in our forest industry. Other jobs would include the labor involved in cutting, splitting and storing to create cord wood for use in a wood stove.

Manufacturing on Vancouver Island: There are two major stove manufacturers on Vancouver Island, one in Victoria and one in Duncan. These manufacturers directly employ approximately 400 people, have revenues estimated at \$70,000,000.00 and exports estimated at \$40,000,000.00. The estimate for employment on Vancouver Island is almost 1000 people employed when you include the local supply chain for these companies.

Manufacturing in BC: Direct employment in the Hearth industry in BC is estimated to be 3000 people (includes Manufacturing, Distribution, Retail and Installation). This grows to an estimated 4500 jobs in BC when the supply chain is taken into account.

These employment numbers are significant. It is important to remember that BC and particularly Vancouver Island are high cost manufacturing locations. Manufacturing jobs are vital to the health of the Island economy. We need to preserve these jobs and nurture them.

Possible Solutions:

Remove old inventory:

One way to remove old wood stove inventory is to mandate that an old non-certified wood stove must be removed before a house can be sold, or to mandate the installation of a certified fireplace insert before a house can be sold. This is a gradual approach that does not target a large group of home owners or renters and has a reduced political impact.

Change-out programs:

A Change-out program needs to be concentrated and targeted to the members of our society who need the financial assistance most. Industry has shown it's willing to help, in these programs, with promotional and financial assistance. These programs can make a difference in removing non-certified products.

Cash for clunkers:

There are many example programs where neighbourhoods were encouraged to get rid of old products. These varied from cash for items as diverse as old cars to lawnmowers. Programs are easy to manage and do not require replacement and verification systems.

Education:

There is no doubt that more education is needed on the use of wood stoves. Industry is willing to be a partner in this and has many resources already in existence to help.

Wood Lots:

Put minimum standards in place for cord wood sold through wood lots. Licence companies who sell wood.
Put guidelines in place for wood storage, seasoning time, moisture content.

I hope you find the above presentation helpful as you move forward to a cleaner future while nurturing the most vulnerable in our society and protecting jobs.

Sincerely
Alan Murphy

A handwritten signature in blue ink that reads "Alan Murphy". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

President
Valley Comfort Systems