29th August 2008

Chief Forest Practices Officer
Forest Practices Authority
30 Patrick Street
Hobart
Tasmania. 7000.

Dear Sir,

Please accept my submission in relation to the Standard for Smoke Management in Tasmania. (draft smoke guidelines?)

Background:

In the 2008 burn season there were over one thousand planned burns (1000) conducted by Forestry Tasmania and the private forest companies (FOI released data). There were additional planned burns being conducted by Local Government, Parks and Wild Life, and the Tasmanian Fire Service.

Evidence from medical and pollution data records in Tasmania this year would indicate there is a direct link between the levels of planned burn smoke, (either foreground or background smoke), which raised levels of particulate matter that we breathe and resulted in health problems for the Tasmanian people. It is an extremely serious Environmental Health issue which is already costing and will continue to cost the community dearly, and one which will not be able to be met by present levels of Government funding as the health problems related to smoke inhalation are universally accepted to be debilitating life long illnesses. The World Health organization states, "There is no safe level of fine particle pollution."

There is not one principal Act for planned burn smoke management in this State.

People have no idea who to contact to report planned burn smoke incidences to in this State as several agencies are supposedly managing similar, but unlinked, data collection.

The forestry industries have been self regulating their own industry with regards to planned burns, with little or no regard for people's health, amenity and the environment.

There have been incidences where fires have been reported as extinguished, when in fact they were not.

Even after working for Health in engineering and bio medical engineering, and as an equipment technician for respiratory patients in this State for many years, as well as successfully managing my own asthma all my life, I was regrettably admitted to Accident and Emergency on four occasions this year as the result of smoke inhalation from planned burn smoke. My specialists and doctors have informed me I will require resulting treatment for the rest of my life.

…/2

Action required to reduce the amount of smoke inhaled:
The following points must apply to the whole of the forestry industries, (government and private), i.e., Forestry Tasmania and FIAT. It must also apply to Parks and Wild Life, Tas. Fire Service and Local Government.

The smoke needs to be prevented at the source.
The mindset for burning (pyromania) needs to be changed in favour of using non burning methods to get rid of forestry's residue i.e., rubbish. This also applies to all other burning authorities. We all know the benefits of chipping and mulching and this could be carried out by masticators. They are being successfully used in situations like ours in other parts of the world; we do not need to re-invent the wheel or put up lame excuses as to why it can not be done. Large areas of undergrowth can be removed very quickly by this method to prevent the build up of fuel to feed bush fires that also put communities at risk. There would be no need to waste resources worrying about how dry timber is for burning is, or how wet forests are. These resources could be better utilised if chipping and mulching was carried out.
Chipping also allows plantations to be planted almost straight away after felling, rather than waiting for wind rows to dry out for long periods before being burnt. This method is less reliant on favourable weather and wind conditions and smoking people out by getting air data modelling wrong as so often happens. Land clearing can still go ahead.
Smoke should not just be seen as a nuisance by those wishing to burn.

The number of large scale burns is excessive. I have previously mentioned there were more than 1000+ planned burns during the 2008 burn season. The number of burns being put up on the planburntas.com daily website did not match this number by any means.

Many of the planned burns are being lit while previous burns are still burning or smouldering. This has not been taken into account when it comes to air quality.
There must be a better way of reporting to a database when a burn is extinguished. This can only be achieved by physically going out to observe the situation.
One database need to be available to the community, in real time on the internet.

There needs to be one principal Act for planned burn smoke management in this State and any lesser Acts/By-laws implemented if the need arises.
One body needs regulatory control over air pollution in Tasmania. At present the Health Department says it has no regulatory control; the Environment Division claims the same. The forestry industries have been allowed to self govern in relation to smoke and it has been acknowledged by the Tasmanian community and Government alike as a complete failure. Regulatory controls for smoke should not be hidden in amongst Guidelines across different agencies as is the case now.

Boards reviewing Standards for Smoke Management must have general public representation.
Any board or body drawing up any standards for smoke management must include representative/s from the general community.

…/3

Boards reviewing Standards for Smoke Management must have Health and Environmental Air Quality Representation.
It should be mandatory for any board or body drawing up any standard for smoke management in this State to include on that Board, the Director of Environmental Health and a suitably qualified Air Quality representative from the Environment Division.

Any new Draft Standards for Smoke Management should be made to undergo a public consultation period before they are enacted.

Once in force, the body in charge of Smoke Management in Tasmania should have the power to take complaints, locate and investigate breaches at the time of occurrence, and prosecute offenders.
To aid in this there should be one 24/7 free call telephone number and one web contact address, which is highly publicised Tasmania wide so there is no confusion who is in charge of smoke pollution, who is to be contacted, and with no overlap of control/duties between departments like occurs at present.

Liaison needs to be undertaken with hospitals, GP's and specialists to specifically ask and quantify the numbers of patients suffering short and long term medical effects as a result of this poor air quality. Real time data should be made available on the www.
We need to have publicised the recognised connection between planned burn smoke, poor air quality, raised particulate levels, people's poor health and associated distress; especially in regards to children and those already suffering cardiac problems, asthma, emphysema, etc. These groups of people make up a significant proportion of our population and are affected seriously by smoke inhalation long before the national standards for air quality are reached and breached.

Take into account every member of the community in relation to smoke pollution, not just populations above a certain number.

Posting burns on planburntas.com daily web site:
The combined forest industries believe they have fulfilled their obligation to the community by placing burn locations on this map. I have previously stated all the burns were not placed on the map and in fact would not all fit on the map. Many burns have been undertaken when the wind direction was forecast to be in the direction of populated areas. The government has breached its duty of care I believe in this regard. It is only a matter of time before one of these large scale burns destroys property and life with the amount of errors being admitted to.

Real-time Air Quality data is not available in Tasmania.
The community has to wait several weeks for validated air quality data to be made available. Current databases are unsuitable to link in with real time field measuring equipment and calibration problems exist with this equipment. The measuring stations do not cover the states whole population and therefore cannot be relied upon as validated data for areas not covered by them, or if the prevailing wind or smoke is not in their direction.
Planned burns have been acknowledged in Tasmania as the cause of elevated or breached air quality readings and for making people ill.

…/4

A permit system to control the number of burns is not the way to go. To extend the burn season, or even to continue to burn staggered burns at the current rate during the burning season will cause wider health problems than we have now. People will not be aware of the lower levels of particle pollution because they will not be able to see it or smell it. Therefore, they will not know to take the necessary precautions to avoid the smoke, and their lungs will still 'feel' it. Remember, there is no safe level of fine particle pollution, and our health does not just magically get better during (or after) the days when the burns cease.

It has been acknowledged that forestry do not record the number of tons of wood burnt, or the number of tons of smoke released. (FOI)

Thank you and I look forward to your reply

Yours sincerely,

Clive M. Stott
http://www.cleanairtas.com

Additional information added 3/9/2008:

Forestry does not have to do planned burns. There are other methods they can use that virtually make no smoke at all:-

i) SMOKE CURTAIN.

High speed air across the top of the burning chamber keeps smoke to an absolute minimum. The only time a whiff of smoke appears is when the curtain is broken as new logs are fed in.

Logs being loaded

…/5

Inside the air burner

ii) **MASTICATOR**.

Mastication is one way to reduce fire hazard and brush, at the same time enhancing the soil. A masticator is a piece of heavy machinery consisting of a backhoe-type vehicle with an articulating arm. On the end of the arm is a device that chops or flails woody vegetation. It shreds huge trees in a matter of seconds and reduces them to chips. Those chips will eventually break down, passing nutrients into the soil and providing a mulch layer that helps keep in moisture.

The machines come in various sizes for different needs and land characteristics.

The mulch also inhibits the return of shrubs that need bare soil to germinate.

Masticators can be used in many types of terrain and can operate on slopes of up to 35%.

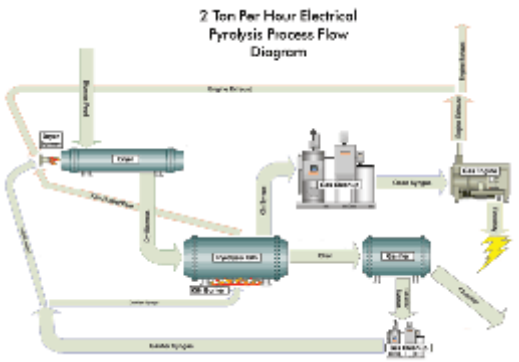
Thinning our overstocked forests is now recognized as one of the best ways to prevent catastrophic wildfires.

And the best part is no slash piles are left behind to deal with later. When the masticator comes in and does its job…that's it.

"You might think that bringing an excavator into the forest would create quite an impact, but these machines are specially designed to tread lightly on the land." "The impact is negligible first and foremost because the ground pressure applied by the machine is only 5.5 pounds per square inch.

Mastication initially appears to be costly but in the long term it's the least expensive method.

iii) **Slow Pyrolysis:**
Slow Pyrolysis system creates synthesis gas for electrical generation, charcoal (char) and waste heat for re-use in plant and for export to other users.
Synthesis Gas.
Syngas can be used to dry the incoming feed material, fuel an engine or a gas turbine.
Syngas can be used as a feedstock for a secondary refining process.
Syngas can be used as a natural gas replacement.
Char can be made into:
Carbon filtration media
Pelletized fuel
Carbon for soil enrichment.



BESTpyrolysis.

Clean air is one of our most precious resources,
essential for our survival and quality of life.
http://www.cleanairtas.com