

**REVIEW OF THE NATIONAL ENVIRONMENT PROTECTION
(AMBIENT AIR QUALITY) MEASURE
AIR QUALITY STANDARDS DISCUSSION PAPER**

Title: Mr. Name: Clive M. Stott

Position: The Tasmanian Public and Environmental Health Network - Group Member

Company: cleanairtas.com

Postal Address:

Suburb: State: Tasmania Postcode: 7277

Telephone: Facsimile:

Email address: cleanair@cleanairtas.com

**All submissions will be published on the EPHC website unless clearly marked
"Commercial in Confidence".**

This template includes hidden text. To display hidden text select Tools then Options, click the view tab and check the box next to "hidden text".

The headings below have been extracted from the discussion paper. **Chapter 5: Issues to be considered in evaluation of NEPM standards** (page 140 of *AAQNEPM Review Air Quality Standards Discussion Paper*) provides further discussion on these questions.

ISSUES TO BE CONSIDERED

Q1. Is there sufficient new health evidence to support a revised standard and if so, for which pollutants?

Yes.
NO₂, PM₁₀, PM_{2.5}, CO and SO₂

Q2. Does the current approach, which allows for a number of exceedences of the standard, meet the requirement for adequate protection or are there alternative methods that could provide more consistency in the level of health protection associated with complying with the NEPM standards?

The current approach does not meet the requirements for adequate protection.

Exceedences generally result in poorer air quality.

There should not be any exceedances allowed as population health is already known to be affected in many instances before the current standards are reached. The standards need tightening.

Exceedances are 'get out of jail free' cards for pollution regulators and for the deliberate polluters.

To reflect the adverse known health effects of Particle Matter, the Precautionary Principle should be applied for sensitive people.

The PM2.5 standard should be set immediately at 20ug/m³ average in a 24 hour period and reduce to 15ug/m³ in three years when it will be reviewed.

The PM10 standard should be immediately set at 40ug/m³ average in a 24 hour period and reduce to 30ug/m³ in three years when it will be reviewed.

'No burn' days should be proclaimed when the level reaches, or is predicted to reach, one or both standards.

There appears to be a linear relationship between exposure to these pollutants and adverse health effects. Any increase in air pollution levels will lead to an increase in risk to the health of the population

Q3. Should changes be made to the reporting protocols that would lead to a greater transparency and better understanding of the causes of exceedances in jurisdictions, the potential risk to population health, and management approaches being undertaken to address these exceedances?

Yes.

Maintaining the current reporting standards does not reflect the current understanding of the adverse health effects of these pollutants.

Air quality readings are taking too long to validate and be made public.

Meeting the current standards does not provide adequate protection for the Australian population.

There is no strict guidance on, or requirement to, assess and provide clear justification for sources of exceedances. This needs to be made part of the NEPM standards.

Time frames for AAQ compliance need to be limited to almost nil as the health effects of pollution are now widely known. A 10 year time limit for compliance is almost unthinkable under current Australian circumstances.

There is strong health evidence that PM2.5 poses a significant risk to human health and this must remain a the driver for a compliance standards for this pollutant.

Natural events should not form part of this NEPM because they are going to occur anyway. That way there is no chance of industry 'piggy backing' onto them with deliberate release of their emissions during an event.

No industry should be exempt from the NEPM standards.

If there is a natural event, then man-made pollution levels must be reduced so standards are not breached. It is the total level of pollution we are to manage, not divide it up into categories.

Investigations into high pollution levels need to be undertaken with transparency. Timeframes need to be implemented for their release.

Q4. Any other issues you wish to raise?

Yes.

The attached email forms part of this template.....

9 Alpine Crescent
Grindelwald
Tasmania
Australia. 7277

cleanair@cleanairtas.com
<http://www.cleanairtas.com>

Tasmanian Public and Environmental Health Network-Group Member
27th August 2010

Environment Protection and Heritage Council
Level 5
81 Flinders Street
Adelaide
South Australia
Australia. 5000
kscott@ephc.gov.au
www.ephc.gov.au

Review of the National Environment Protection (Ambient Air Quality) Measure

Thank you for the opportunity to make a submission.

This submission is made in addition to information, photos, and correspondence contained at <http://www.cleanairtas.com> and in the main refers to Particulate Matter.

Background

I cannot stress it strongly enough the current Ambient Air NEPM is not working in Tasmania and this is bitterly disappointing when Tasmania has representatives on NEPM Committees.

It is claimed Tasmania has the cleanest air in the world at the N/W Cape Grim base-line air monitoring station, but what happens a short distance down-wind after that beggar's belief and yet we are assured we are meeting the current AAQ-NEPM with no PM10 exceedances. It is for this reason that a variation needs to be made to the AAQ-NEPM.

I have been in accident and emergency because of wide-scale environmental pollution and we have been hounded by it day and night during Tasmania's forestry burn seasons. There has been no escape inside or outside (see **1.3.p4.10** below) and the health and financial costs to my family and I have been enormous.

I have raised this issue with every Division and Government Department here in Tasmania and the doors have been closed when it comes to breathing clean air. To see what I mean, please go to <http://cleanairtas.com/phpbb/viewforum.php?f=3&sid=c9024f74bb6fcb38e748e527ffd22d81>

This is how we have had to live over the last few years during many days and months of the year. The smoke has intensified but supposedly our air quality is satisfactory. You judge for yourself.

Ten years ago I had to leave the last town I lived in (Scottsdale) because of forestry smoke. Yes, it has been going on for that long. I now live near Exeter, not to be confused with Launceston, which has been the subject of ambient air studies.

Regularly, I am subjected to smoke from planned burning when home heating is not being used.

I live approximately 200 Km down wind from Cape Grim's clean air. Pollution generated from within this N/W quadrant of Tasmania is particularly damaging and 'smoke' from the mainland during their planned burn season adds to this harm. A change in wind direction, which often happens throughout the day can bring particulates in from other areas, ie, N/E. Tasmania, or again, from other parts of the mainland.

The image shows a screenshot of a table titled "CURRENT BLANKET DATA" from the EPA Tasmania. The table lists air quality measurements for various stations in Tasmania on 17/03/2010 at 11:30 AEST. The measurements are for PM₁₀ and PM_{2.5} in µg m⁻³. The data is as follows:

Station	Date	Time	PM ₁₀	PM _{2.5}
	DD/MM/YYYY	AEST	µg m ⁻³	µg m ⁻³
> Derby	17/03/2010	11:30	117	94
> Lilydale	17/03/2010	11:30	111	99
> Scottsdale	17/03/2010	11:30	105	94
> St Helens	17/03/2010	11:30	115	95
Fingal	17/03/2010	11:30	31	19
Geeveston	17/03/2010	11:30	30	11
Huonville	17/03/2010	11:30	12	3
Judbury	17/03/2010	11:30	13	4
> Exeter	17/03/2010	11:30	151	123
Bryn Estyn	17/03/2010	11:30	21	6
Gretna	17/03/2010	11:30	16	7
> W.Ulvstone	17/03/2010	11:30	51	36
Emu River	17/03/2010	11:30	32	15
Sheffield	17/03/2010	11:30	29	17

17 March 2010 Indicative Ambient Air Quality in Tasmania

Smoke from Victoria affecting Tasmania

EPA – 18/3/2010

A large section of Northern Tasmania has been affected by smoke drifting across Bass Strait from Victoria this week.

“The plumes have spread across the north of the state and appear to stem from the 90 Mile Beach area of East Gippsland in Victoria where a number of planned burns are in progress.”

Our EPA is required to administer the Environment Management Pollution Control Act (EMPCA 1994), and *the Environment Protection Policy (Air Quality) 2004*. The EPA signed a Memorandum of Understanding (MOU) with the Forest Practices Authority (FPA) and in doing so transferred its responsibility of taking forestry smoke complaints.

Further, it is interesting to note my smoke complaints (photos and text) as displayed at <http://cleanairtas.com/phpbb/viewforum.php?f=3&sid=c9024f74bb6fcb38e748e527ffd22d81> were submitted to the Forest Practices Authority as required, but the FPA would not acknowledge them, allocate a complaint number, or enter them in their database. Most of these smoke events were a serious health hazard.

My air quality complaints were then forwarded to the EPA. The EPA’s response was as follows:

“You may be aware that earlier in the year the EPA conducted a preliminary investigation into whether we would be able to mount a case against the entities apparently responsible for much of the smoke that caused unacceptably high levels of particles in the Huon Valley and the at Burnie. Having consulted with the Office of the Director of Public Prosecutions, the Director, EPA reached the view that it was unlikely that the EPA would be able to collect a sufficiently strong body of evidence for there to be a reasonable prospect of a successful prosecution. Given the lack of detail, and the time that has elapsed since the events depicted on the cleanairtas website it is reasonable to conclude that there is even less chance that we would be able to mount a successful prosecution for these events and that the allocation of resources to investigate them is not warranted.”

“The EPA continues to work on improving air quality in a number of ways and information about the practices referred to in the forum are useful in identifying areas of concern, but unfortunately we cannot investigate as you had originally requested of the FPA.”

– EPA 13/8/2010.

The EPA claim they have no jurisdictional control over forestry smoke, even though the EPA advises me there are no exemptions under the Environment Management Pollution Control Act (EMPCA – 1994) except during the fire permit season. In other words, our air quality in Tasmania can reach extremely hazardous levels and we just have to suffer it. This is despite the AAQ-NEPM, our EPA and FPA, and the many Acts, Guidelines and Codes, Good Neighbour Charter, and Memorandum of Understandings, while our Tasmanian Fire Service, Parks and Wildlife, Councils, land owners, and home owners, all conduct harmful burning practices simultaneously.

There has to be a better way to protect people’s health from poor air quality and this needs to be written into the AAQ-NEPM. Tasmania by the way has the highest rates of asthma and (non skin) cancer in Australia. Is it any wonder?

How come we are meeting the current AAQ- NEPM?

As I understand it the only recognized method of measurement for Particulate Matter (PM) under the current NEPM Standard is the gravimetric method. These performance-monitoring stations are few and far apart in Tasmania and I feel we are only required to have two anyway.

A system of some seventeen light scattering laser photometer air-monitoring stations has recently been installed in Tasmania (Base line air network of EPA Tasmania or BLANkET). These are capable of giving almost real-time readings but do not comply with the current AAQ-NEPM therefore can only be classed as proxy monitoring stations for PM10 and PM2.5. These instruments do trend the PM's distantly from the performance monitoring stations and naturally show quite different levels of pollution to the main stations.

In fact when studying the history of the BLANkET laser counters, parts of Tasmania would not comply with the NEPM. However, because of the way the AAQ-NEPM is written, we are made to believe ALL of Tasmania's air complies generally with the NEPM Standards, ie, No PM10 Exceedances! It looks great on paper and in reports, but the real story is different.

I believe the Precautionary Principle should apply to allow laser particle counters to be used for AAQ monitoring.

The need for PM10 and PM2.5 measurements to be made concurrently.

It is a common belief that 'smoke' falls mainly within the PM2.5 range. But we have to ask ourselves does all burnt vegetation fit the studies undertaken that tell us this?

We have experienced many instances where statewide air monitoring has shown elevated levels of PM10 without an increase of PM2.5 and the cause is almost certainly Australian woodsmoke. Salt particles have on occasions been blamed, but conditions have to be right for this to occur.

Whilst all the arguments still hold good for all the reasons the PM10 standard was made, and people are still suffering the same ill health from this sized particle, we must continue to measure PM10's and tighten the reporting PM2.5 Standard to a compliance standard.

Section 1.2 of the Discussion Paper.

1.2.p7.16 – 20

"...the objectives of NEPMs are to ensure:

that people enjoy the benefit of equivalent protection from air, water and soil pollution and from noise, wherever they live

that decisions by businesses are not distorted and markets not fragmented by variations between jurisdictions in relation to the adoption or implementation of major environment protection measures.

I totally agree with this, however, in Tasmania the words "with the need to burn" have recently been added to allow our biggest burners to smoke the state out when there are other more suitable methods available to them and when there is actually "no need to burn".

Decisions by businesses should not be allowed to distort AAQ, let alone the AAQ- NEPM.

It is a fairly wide spread belief in Tasmania the EPA is fostering burning that results in poor AAQ by endorsing the FPA's Co-ordinated Smoke Management Strategy. Mention will be made further in my submission about this.

This is disappointing when Tasmania is represented on the NEPM Committees, which play a part in the adoption/implementation of major environmental protection measures.

1.4.p8.14

Never could any of the earlier comments be seen as a *'desired environmental outcome'*.

1.3.p8.4 & 10

"...studies in Australia and overseas have shown that outdoor air pollution infiltrates indoors and can be a major driver of indoor air pollution levels..."

I agree.

"Given the infiltration of outdoor air into the indoor environment, reductions in ambient air pollution levels will also lead to reductions in indoor air pollution."

The statement is true. Indoor air quality in Tasmania is definitely unsatisfactory at times because ambient air quality levels are hazardous.

1.4. p8.19

"The desired environmental outcome of the AAQ NEPM is ambient air quality that allows for the adequate protection of human health and well-being."

I agree but it is not happening.

This is why a variation needs to be made to the AAQ-NEPM to protect human health and well-being in Tasmania. See the harmful affects at

<http://cleanairtas.com/phpbb/viewforum.php?f=3&sid=8ae784125fcf9decb147d3b1900677b5>

Animal, and plant, health and well being must also be included in this statement.

1.5 p8.22

Review of the NEPM

Development of the NEPM has understandably been a long process. The final draft of the discussion paper was planned for release before Christmas last.

It is disappointing that public input has been shortened to a few days on this occasion owing to the fact that the Template was not released until the 16th of August 2010 and submissions close on the 27th August 2010.

1.6 p8.40

Terms of reference for the review

It is pleasing to see the TOR incorporated into the AAQ-NEPM process

The Discussion Paper is full of great background health information and the NEPM Committees must be congratulated. But, are we bogging ourselves down with all this when people are out here in our communities leading miserable lives and suffering poor health and shortened lives because of very obvious poor air quality.

Often the source is known and nothing is done, can be done, about it.

What are we waiting for? For more evidence to say poor air quality has undesired outcomes? It will come, but haven't we got enough evidence right now to immediately employ the Precautionary Principle to our NEPM and set standards accordingly?

2.1.p12.10 & 12

The AAQ-NEPM uses, “...specifically nominated performance monitoring stations to give an average representation of general air quality and of population exposure to the six main pollutants.”

The NEPM monitoring protocol does not apply to monitoring and controlling peak concentrations from major sources such as heavily trafficked roads and major industries.

Monitoring of these major point sources is the responsibility of each individual jurisdiction, and consequently, is outside the scope of this NEPM

Air monitored at the specifically nominated performance monitoring stations in Tasmania is not representative of general air quality and population exposure to the six pollutants. It is certainly not representative of PM's.

It is ludicrous to think the Tasmanian forest industries can produce wide scale harmful pollution right across Tasmania and because it emanates from point sources it is not covered under the AAQ-NEPM. This needs looking into immediately if this is the case.

Averaged general air quality has failed the people of Tasmania. We are looking for more defined standards than this to protect our health.

2.1.p12.17

I strongly disagree with “*the air quality standards in the AAQ NEPM drive jurisdictional air quality management actions to meet a nationally agreed benchmark.*”

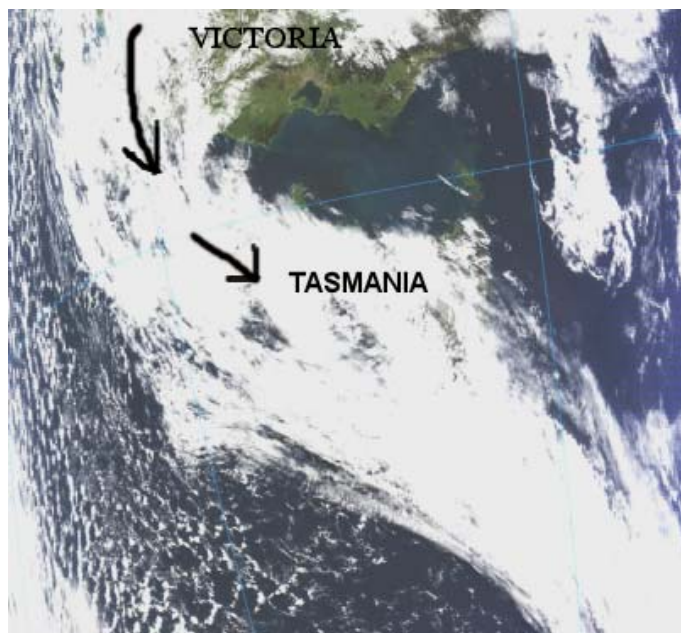
The benchmarks being met only apply to where the air is being measured by the performance monitoring stations. Throughout other parts of Tasmania the benchmarks are being reached and breached. Health is put at risk.

2.3.p13.10

“The resulting standards were considered to be a first step in establishing a consistent approach to managing air quality around Australia, with the ultimate aim of providing equivalent protection to all Australians wherever they live.”

My observation is “equivalent protection” is not provided to Australians wherever they live, furthermore, “equivalent protection” is not even provided to all Tasmanians wherever they live.

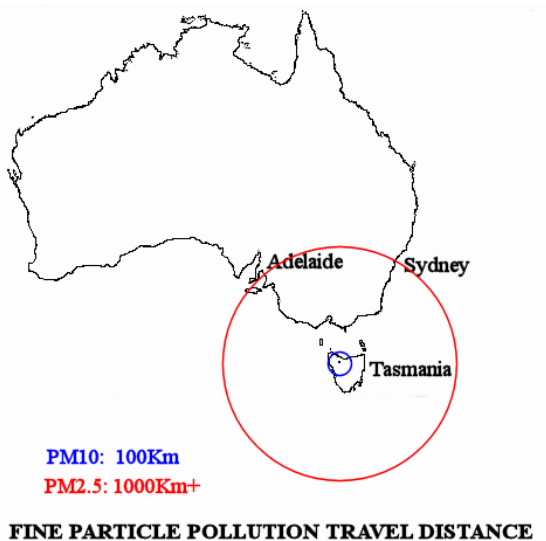
What's more, Tasmanians have to breathe their own deliberate pollution and that from other states as well. This occurs mainly because of our prevailing wind conditions, but never the less it happens.



A satellite image showing typical air streams to Tasmania.

The lifetime of PM 2.5 particle pollution is from days to weeks and their travel distance ranges from 100 to greater than 1000 kilometres (NRDC, 2000).

PM10 particles have been known to settle in Tasmania from 2000Km away.



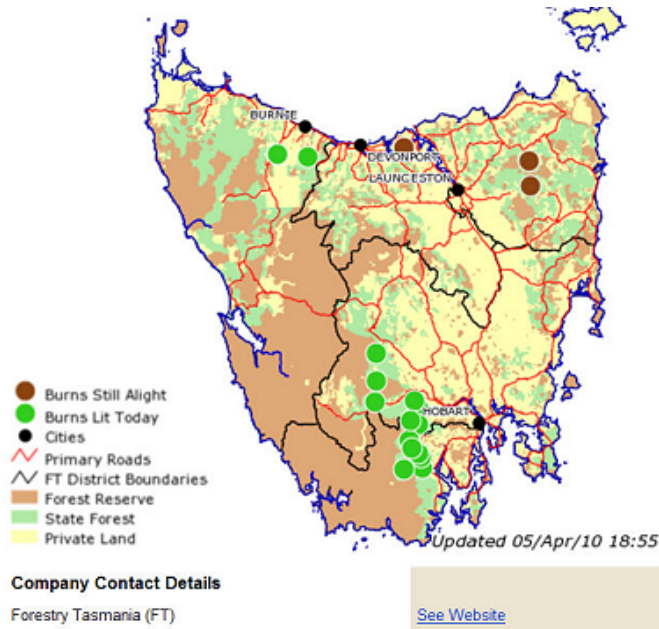
Pesticides and herbicide toxins have also been known to adhere to these particles and travel long distances to complicate people's exposure to pollution. This is also reported to occur after burning takes place.

2.3. p13.37

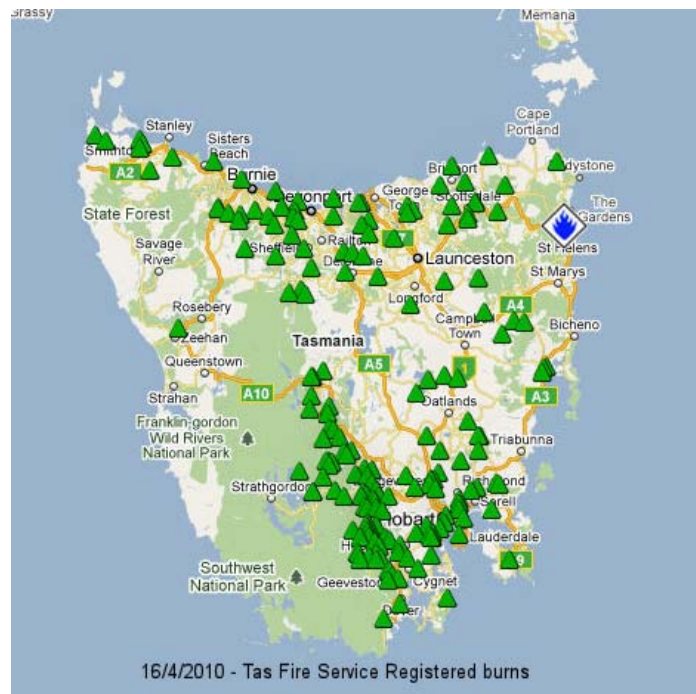
The Technical Review Panel based their recommendations "*on the protection of human health.*" Either the acceptable ambient levels are wrong, or local jurisdictions have failed to work towards meeting these levels as human health is being adversely affected.

In Tasmania there appears to be a leaning towards industry (the failing forest industry) and their inappropriate and unnecessary “need to burn.” Profits before health.

The purported aim of Tasmania’s FPA Co-Ordinated Smoke Strategy trial was to limit the amount of smoke into an airshed. However, it has been a failure because the trial is not compulsory, only some of the burners take part, the computations allow for the **maximum amount of smoke** into an airshed, inputs are wrong, the airsheds do not match up with populated areas, concurrent burning by the Tasmanian Fire Service, Parks and Wildlife, councils, farmers and other landowners are unknown (see below), and all combine to immediately affect and ultimately fail the Review Panel’s recommendation to protect people’s health.



Forest industries high and low intensity smoky burns



More pollution. Tas Fire Service additional registered burns

2.3. p13.46

“Where the standards were relevant, they were included in the range, and where there was considerable divergence between the two levels, an intermediate level was included.”

The Precautionary Principle must now be applied to reflect the latest findings and to protect those most sensitive (worst affected) in our communities.

2.3.p14.2

“...consideration of the benefits, typically in terms of avoided health costs, associated with each of the standards.”

The long-term health benefits are significant when avoidable pollution does not take place. I refer to some of the health costs of poor air quality, at <http://www.cleanairtas.com/cost.htm>

2.3.p15.3

“Available air monitoring data were examined to determine levels and trends for each of the pollutants within each airshed.”

It seems different airsheds are being applied in Tasmania with regards to determining levels and trends for pollutants. It would appear that the eleven (11) airsheds used by the FPA’s CSMS trial do not match up with the ones referred to in the Discussion Paper.

Some of these airsheds are even known to have their boundaries in gullies and not on ridges. This is confusing, could lead to wrong interpretation, and worse still to an unsatisfactory AAQ-NEPM.

2.3.p15.25

NEPC must be commended on introducing the PM2.5 reporting Standard.

2.4 Health impacts Considered.

The Precautionary Principle should apply to all the AAQ Standards.

Tasmania has the highest rate of asthma and non-skin cancer in the country.

2.5 Form of the standards and their application

2.5.p28.19

“Under the provisions of the NEPC Act 1994 the standards became legally binding on jurisdictions when the NEPM was made in 1998. Jurisdictions were required to establish monitoring networks to assess compliance with the standards and to take actions to improve air quality to ensure that the standards and associated goals were met by 2008.

Monitoring for assessing compliance with the standards is conducted at performance monitoring stations. These stations have been established in accordance with jurisdictional monitoring plans approved by NEPC.”

Any fixed air monitoring station only measures air quality passing through it and is not indicative of state averaged pollution. Tasmania needs a ‘Whole of Tasmania’ approved plan.

As mentioned previously, I do not believe the performance monitoring stations in Tasmania are located in the best positions (because of terrain, pollution dispersal, etc.) to portray the real state of our air. My comment is based on air quality readings from the network of proxy PM10/PM2.5 monitoring stations recently installed across Tasmania, and by talking to other affected people across the state.

2.6.1. p29. PM2.5 review

The PM2.5 studies conducted in Australia and overseas, together with years of Pm2.5 monitoring, indicate that the Precautionary Principle should be applied for sensitive people during this review of the AAQ-NEPM, resulting in it being changed to a PM2.5 compliance standard.

The PM2.5 compliance standard should then be set immediately at 20ug/m³ average in a 24 hour period and reduce to 15ug/m³ in three years when it will be reviewed.

The PM10 compliance standard should be immediately set at 40ug/m³ average in a 24 hour period and reduce to 30ug/m³ in three years when it will be reviewed.

'No burn' days should be proclaimed when levels reaches, or are predicted to reach, one or both standards.

The reason I feel the averages should be made less than what is currently in the reporting standard is from personal experience here in Tasmania. High levels of smoke occur almost every day during our burn season, but reduce at times just to come in under the average. This pattern is reproduced for months at a time, and unless there is some sort of projected standard at shorter time intervals to halt pollution, then at the end of the yearly reporting the exposure could be much higher than the annual standard. This elevated figure cannot be turned back; it is too late, the pollution has been breathed.

This could possibly be achieved with no-burn days except for home heating and cooking.

What ever happens, PM2.5 needs to be made into a compliance standard immediately. People do not recover from the effects of high particle pollution just because it stops for a few hours a day to bring it in under the average.

The high number of point sources in Tasmania form diffuse pollution across many parts of the state. It ends up to the point of not knowing where the smoke is coming from. This is highlighted at

<http://cleanairtas.com/phpbb/viewforum.php?f=3&sid=f8831fa4f9473f4fc2edc364bc11e441>

In consultation with The Director of Environmental Health in Tasmania (Dr. Roscoe Taylor) I was directed to remain indoors, or to go to a public building (I can attest these afford little or no protection as is mentioned in regards to indoor pollution in this Discussion Paper).

This advice is wrong according to many studies (**1.3.p8.10**) and is still being released to all Tasmanians despite me raising this matter with the Director.

For these reasons I strongly believe point sources should be covered under the AAQ-NEPM if we are to get the kind of compliance we are looking and hoping for. Unfortunately, it is not working leaving it to others.

3. NEW EVIDENCE OF HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS

3.1 p36.14

City studies are mentioned. Many other people in Australia live in rural areas and their lung health is as important as any one else's.

Smoke dispersal for deliberate planned burns is thought to be ok in Tasmania as long as it does not affect people in built up communities, ie, a town listed on a 1:100,000 map or something similar. This is completely wrong and heartless. As if smoke can be controlled once a large burn is lit. Again I am talking about exceedances of our AAQ-NEPM or at the very least, raised AA levels, which are known over time to be harmful.

3.1.1.1 p37.24 *Establishing causality*

I would like to draw your attention to what happened to me when I was exposed to additional high levels of particle pollution in 2008.

I developed what I thought was asthma almost immediately, but it could not be controlled by a myriad of drugs. I found that unusual. Then I got massive pain in the leg below the knee. I had bradycardia, clots in the leg, and a below the knee DVT which resulted in clots in both lungs. I just had to ride it out over weeks until the pollution stopped outside and inside the home, and I could gradually 'breathe' again. To this very day I suffer from a thrombosed leg, and sensitization to PM and other pollutants has increased.

I have since found out others suffered smoke affects simultaneously.

By chance I found a recent study on the Internet that fitted my episode to a tee at:

<http://www.cleanairtas.com/inwards/deepveinthrombosisclots.mht>

Mine was not a scientific study, however, because we do not all live near, or participate in, scientific health trials it does not mean our poor health is just a figure of the imagination. I have

no doubt that my adverse health impacts were as a result of high Pm's and possibly other pollutants. This is well documented in **3.7 Particles**. P82, of the discussion paper.

People around the world are forwarding to me results of scientific studies such as this that was not available back when the AAQ-NEPM was established. Much detailed information on the health effects associated with poor air quality is now being released, and it appears to indicate the effects are worse than previously thought.

I wonder if my hospital and doctor attendances translate into statistical figures of any value? I know my home medication, costs, and suffering are probably not. This is something that should form part of any health study and any Standards that result from it.

3.2.p43.1 & 14

“Another factor that must be taken into account when setting air quality standards is the existence of vulnerable subgroups within the population. The sensitivity of individuals to air pollution arises from a number of factors including: ...”

“These factors may affect an individual’s response to exposure to air pollution and air quality standards must contain an adequate margin of safety to protect these individuals as far as practicable.”

I strongly agree. The Precautionary Principle must apply.

Visual reducing particles:

The following “NEPM” is taken from the Victorian EPA website, (the other standards were left out to compact the chart). I would imagine the standard for Visible Reducing Particles was robustly considered before it was included alongside the other standards.

It is evident our performance monitoring stations are only an average of a state’s AAQ and depending where they are sighted our AAQ can actually be much worse than this.

I believe a standard for Visual Reducing Particles has merit and should be included in the NEPM

Pollutant	Averaging Period	Environmental Quality Objectives¹	Goal - Maximum Allowable Exceedences
Particles as PM ₁₀	1 day	50 g/m ³	5 days a year ³
Visibility Reducing Particles	1 hour	20 km ⁴	3 days a year

Visibility	Impact
Less than 20 km but more than 10 km	Unhealthy - Sensitive people
Less than 10 km but more than 5 km	Unhealthy - All people
Less than 5 km but more than 1 km	Very Unhealthy
Less than 1 km	Hazardous

It is recognised there are limitations with this method of measuring during foggy weather, just as there are with other air monitoring instruments.

However, with this proviso, this method of determining air quality is recommended by the CSIRO.



In the above photo taken on 17/3/2010, using the Visible Reducing Particle method for determining AAQ, with visible distance down to less than 1Km the air quality would have been deemed to be hazardous to all groups of people.

3.8 p106 Benzene

I am in favor of Benzene being moved onto the AAQ-NEPM but the Monitoring Investigation Level (MIL) would need to be assessed to come up with an appropriate standard at this time. 1.5ppb as an annual average?

3.9 p112 Polycyclic Aromatic Hydrocarbons

I am in favor of PAH's being moved onto the AAQ-NEPM but the MIL would need to be assessed to come up with an appropriate standard at this time. 0.3ng/m³ as an annual average?

4.1 p117.42 Form of international standards and associated conditions:

4.1.p118.14

“The NEPM goal is to meet the standards to a specified degree within 10 years.”

With the emphasis on, and access to, computerized databases and much more sophisticated electronic measuring devices than were available in the past, I feel there are good reasons for any current or future goal to be significantly shortened. Available data from health studies would indicate this as well.

4.2. p119.22

“Since (1987), scientific knowledge about the effects of exposure to air pollution and the magnitude of its public health impact has increased exponentially.”

4.1 p118.30. *“As guidelines are not mandatory they allow jurisdictions to experiment with other approaches...”*

This has proven to be a failure in Tasmania. Respiratory harm (and more than likely other health harm) has resulted in Tasmania as a result of the CSMS experiment mentioned previously.

And, the approach to do nothing (see earlier EPA/DPP advice) is certainly not the approach to take whilst people are suffering the effects of deliberate airborne pollution.

4.1.p118.42

“Exceedences may be permitted to allow for events that are known to occur, but can not be managed e.g. emissions from wildfires or dust storms....”

I strongly disagree. Polluters learn about exceedences first when exceedences form part of the AAQ – NEPM. They are seen as a ‘get out of jail free card’ by local jurisdictions if they do not want to take action, have other vested interests, or are not proactive in protecting health.

Never should a law be made to allow for willful breaking of that law.

Dust storms are natural events. Bushfires can result from deliberate burning at times and should not be classed as an exceedance.

The present NEPM needs to be tightened. It has been in long enough for jurisdictions and the public to know how it works and it is there to protect health.

One of these exceedences a year can make life miserable for sensitive groups. This has been the case in Tasmania.

4.7.p129.20

“Children have been identified as a vulnerable group that must be considered when developing air quality standards.”

I strongly agree. Refer to <http://www.cleanairtas.com/asthma.htm>

Summary:

Air quality standards exist for the purpose of protection of human health and the environment. Please add: “...and the flora and fauna.”

The current AAQ-NEPM does not adequately protect people’s health in Tasmania. *“There appears to be a linear relationship between exposure to these pollutants and adverse health effects. Any increase in air pollution levels will lead to an increase in risk to the health of the population.”*

The current AAQ- NEPM does not guarantee clean air in Tasmania.

Elevated harmful AAQ readings can last for lengthy periods in Tasmania. These should not be confused with the short duration ‘peak’ readings.

Point source numbers are so great in the smallest state of Australia that they are often confused with being one diffuse source.

There is strong health evidence that PM2.5 poses a significant risk to human health and this remains a key driver for consideration of the need for compliance standards for this pollutant.

Tasmania is also subjected to deliberate (planned burning) and accidental (bushfire) pollution from interstate; '*local jurisdiction*' control as mentioned in the Discussion Paper does not apply in this case.

Updated standards should define concentrations for the considered pollutants because these are "*expected to result in a significant reduction of adverse health effects.*"

Legal requirements must form part of the AAQ standards and penalties must be applied when the objectives are not met.

Local jurisdiction does not apply when the EPA refuses to investigate extremely hazardous pollution events from deliberate sources over many months of the year.

Air pollution events are so constant in Tasmania that people have to log onto the FPA website daily and sometimes several times a day to avoid smoke inhalation. This is unreasonable, costly, and in many cases impossible.

Self-medication at home (with additional risk) is being practiced more as the shortage of doctors becomes a reality and the timeframe at which their specialist can see a patient.

Health departments, ie, accident and emergency departments, respiratory departments, etc., have their workload and costs reduced when deliberate acts of air pollution are not experienced.

The best air monitoring methods and standards in the world are of little use if we do not do not stop pollution at the source.

Compliance of the standard should be assessed at a population-oriented monitor that reads the highest value within an area.

We must never have an Unusual Event Clause that allows for deliberate man-made pollution to 'piggy back' onto the back of natural events.

Despite AAQ standards, the air quality has been so bad in Tasmania in the last few years that people believe they are unwittingly being made take part in human smoke studies.

The Visible Reducing Particle method of measuring AAQ should be written into the NEPM.

Since the introduction of the FPA's Co-Ordinated Smoke Management Strategy trial, Tasmanians have experienced AAQ particulate pollution hazardous to all groups.

It is now possible for each polluter to blame the other.

In Tasmania the FPA and the EPA have both refused to investigate genuine smoke complaints.

In Tasmania the DPP has advised the EPA a successful prosecution would not result from serious smoke events.

In Tasmania the big polluters can snub their noses at the AAQ-NEPM.

Recent worldwide information is now available with regards to alternative methods to prevent deliberate and accidental air-borne pollution. This can be found at <http://www.cleanairtas.com/alternat.htm>

People affected by poor air quality have nowhere to turn in Tasmania.

The laws, regulations, standards and codes mean nothing in relation to harmful levels of air borne particle pollution according to the EPA's advice from our Department of Public Prosecution.

High peak levels and years of elevated low level PM10's (and PM2.5's) have been the norm in Tasmania. The immediate and long-term health problems associated with this have been clearly spelt out in the Discussion Paper.

At the time of writing this submission, and even before Victorian Premier John Brumby has released his states draft into the findings of Victorian Bushfire Royal Commission, our authorities in Tasmania have met to plan their burning regime based on another state's independent findings.

Standards are often legally enforceable. Conversely, guidelines are normally only advisory.

The primary driver for tightening our specific standards is an improved understanding of the health effects associated with exposure, based on new scientific evidence and health information, as contained in the Discussion Paper.

The AAQ – NEPM needs to provide a framework for the whole of Australia for the management and regulation of both point and diffuse sources of air emissions for pollutants with the potential to cause known environmental harm.

Please contact me if further information is required.

Yours faithfully,

Clive M. Stott