



**ENVIRONMENT PROTECTION AUTHORITY BOARD**

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Our Ref: 11.13.13/JAR/HDS

16 December 2009

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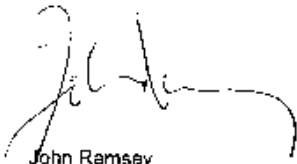
Dear Mr Stott

**MEETING WITH EPA BOARD 11 NOVEMBER 2009**

Following on from our meeting on 11 November on Launceston, I now enclose a detailed response to the issues submitted by you in writing at the meeting.

I apologise for the delay. As you may appreciate, the response has taken some time to coordinate.

Yours sincerely



John Ramsay  
CHAIR

**Response to Questions Tabled by Mr Stott at the  
EPA Board Meeting in Launceston, 11 November 2009.**

***a/ Are you aware of how my health has been seriously affected by poor air quality in this state while the EPA has been in operation?***

You described your health problems and their relationship with air quality to us at our meeting in Launceston.

***b/ What is the principal Act governing air quality in Tasmania that the EPA is bound by?***

As you are aware the Environmental Management and Pollution Control Act is the principal Tasmanian law relating to air quality. The Act is administered by the Department of Primary Industries, Parks, Water and the Environment. The Act establishes the EPA as comprising the EPA Board and the Director, EPA. The functions and powers of the Board are set out in s.14 of the Act and the Director has a number of functions and powers set out in various provisions of the Act.

***c/ This (clause) is not being complied with. Please explain why?***

The EPA's strategic plan identifies clean air as one of the EPA's goals and states that this will be pursued by implementing the Act and the Environment Protection Policy on Air Quality.

The Minister's Statement of Expectation includes an expectation that the Board will

- *engage stakeholders to investigate options for reducing impacts on the community from smoke generated by vegetation clearance and regeneration burning;*

In response the EPA committed to:

- o Develop an MOU with the Forest Practices Authority (FPA) to clarify roles and responsibilities;
- o Work with the FPA and other stakeholders to develop an improved system for the management of smoke from planned burning activities;
- o Follow through with work commenced by the former Board of Environmental Management and Pollution Control on the monitoring of smoke

Since its inception, the EPA has put considerable effort into air quality issues and, in particular, the better management of smoke from planned burning. The EPA's approach is guided by the principles of the *Environment Protection Policy (Air Quality) 2004 (Air Policy)* and the objectives of the *Tasmanian Air Quality Strategy 2006*. In short, the EPA's aim is to ensure that smoke from all types of planned burns is managed in accordance with best practice and that smoke is reduced to the lowest practical level consistent with the need to conduct burns. The EPA is working towards this objective through its participation in a working group on smoke management formed by the Forestry Practices Advisory Council. Other agencies represented on this working group include the Forestry Practices Authority (FPA), Forestry Tasmania, Parks and Wildlife Service, The Department of Health and Human Services and representatives of the forestry industry. A major objective of the EPA's participation in this group is to ensure that the principles of the Air Policy are

reflected in an amendment to the *Forestry Practices Code* which will, in the future, enable the enforcement of best practice smoke management through the forest practices regulatory system.

As you are aware a major initiative of the EPA to assist with getting a better understanding of the impact of planned burning on air quality has been the BLANKET program. The EPA believes that getting better objective information on the effects of smoke on air quality, particularly in comparison to available recognised standards, is a key to getting appropriate recognition of smoke as an issue and driving better management of the impacts of smoke.

***d/ Are members of the EPA board concerned at all with the setting up of an Ethics Commission in Tasmania?***

No.

***e/ Which state Minister is in charge of air quality in Tasmania?***

The *Environmental Management and Pollution Control Act* is within the portfolio of the Minister for Environment, Parks, Heritage and the Arts.

***f/ Why has the BLANKET air monitoring Installation not been completed and reporting in real-time to the public? This was promised back in May 2009.***

Funding for the BLANKET project was approved in mid February 2009. A significant amount of work was undertaken immediately following this approval, leading to the commissioning of the first 5 stations, all in the north-east of the state, in May 2009. The rate of deployment of new stations has been slowed for several reasons. Firstly, the system forming a BLANKET station is not an off-the-shelf product but a purpose-designed build of individual components, with the particle detector being at the cutting-edge of technology operating in a totally new environment. Additionally the data-collection, data-validation and web display software was purpose written in-house for the BLANKET project. The system provides great flexibility and functionality, but has required time and effort in its development. Two equipment issues arose with the first batch of BLANKET particle counters deployed. Both issues were due to manufacturing errors. The faults have been rectified by the manufacturer (under warranty, at no cost). The faults resulted in field failures of the particle counters and it was considered appropriate to await the delivery of repaired units prior to publishing real-time data on the web. The mini-network of 5 stations has been used as a concentrated data-validation system and to check-out the equipment prior to deploying further stations. It was considered that data could not be publicly released until such checks had been completed. The overall conclusion is that the mini-network is now performing to design specifications. Three more BLANKET stations are presently being commissioned in the Huon Valley. Real-time air quality data from the fully operational BLANKET should be publicly available early in 2010 before the planned burning season.

***The readings from our installed stations do not match up with what is actually happening at locations in the north of the state with regards to particulate matter. They by no means match up with the widely recognised Visual Air Quality method used to determine air***

*quality. Using the VAC method we had days classified as 'dangerous' or 'harmful' to people's health this year, but this never translated to readings from our installed stations.*

**g/ Could there be calibration problems with the instruments?**

There can be merit in qualitative indicators of air quality, such as a visual index (visibility range), though they are subject to influence from humidity, lighting (e.g. whether the observations made on a clear sunny day or on an overcast day), visual acuity of the observer, and other effects. To do a full comparison of the VAQ (Visual Air Quality) method and air quality measures from the EPA's stations would require access to the VAQ data. If the VAQ data are supplied, the Air Section will undertake a comparison of measured PM10 and PM2.5 with the VAQ data. We are confident that our reference particle monitoring instrumentation measures what is actually happening at our stations. The fact that the VAQ method does not always tally with the data simply highlights the issues with the use of the visual technique.

The reference gravimetric air quality instruments are calibrated monthly (according to standard procedures). The microbalance that weighs exposed filters is also calibrated regularly, and regularly verified (using a standard reference mass) as part of a strict quality controlled operating procedure. The Air Section's operating procedures were scrutinised by NATA (National Association of Testing Authorities) and Section staff interviewed on quality control and quality assurance matters in early 2009. Subsequently the Air Section received NATA accreditation for the determination of PM10 and PM2.5 by low-volume (reference) air samplers. Any serious shortcomings in the calibration procedures or methods in use by the Air Section would have been identified in the NATA audit.

The continuous instruments (e.g. TEOMs, Dustraks) at the major air stations are also calibrated and regularly compared to the reference instruments. The dustraks used in the BLANKET are calibrated against a reference dustrak, which is itself calibrated against the continuous and reference instruments at New Town station in Hobart.

**h/ Are you able to provide to me the detailed methods/procedures used to calibrate the instruments in use?**

The Environment Division, Air Monitoring Section, is accredited by the National Association of Testing Authorities (NATA) for the determination of ambient air particle concentrations PM10 and PM2.5, using low volume RAAS samplers. This method complies with the requirements of AAQ NEPM, as determined by the NEPM's Peer Review Committee. The NATA accreditation (number 16646) encompasses overall methodology and includes procedures for calibration and maintenance of the equipment used.

The low volume air samplers used by the Air Monitoring Section are calibrated and maintained in accordance with the requirements detailed in the following Australian and New Zealand standards:

- AS/NZS 3580.9.9 – Determination of suspended particulate matter – PM10 low volume sampler – Gravimetric method, and
- AS/NZS 3580.9.10 – Determination of suspended particulate matter – PM2.5 low volume sampler – Gravimetric method.

All reference materials used in the procedures detailed in these standards are calibrated in accordance with the NATA calibration intervals stipulated in the Supplementary Requirements for accreditation in the field of Chemical Testing.

Staff undertaking calibration and maintenance of equipment, are deemed competent under NATA approved competency procedures.

***if Do you think it is reasonable that individuals or communities should have to install their own air monitoring equipment in Tasmania as a result of these 'questionable' readings?***

The EPA does not agree that its air quality monitoring results are questionable. The Air Section undertakes its monitoring activities in accordance with a documented quality control system and is NATA accredited for the determination of PM10 and PM2.5 by low-volume (reference) air samplers.

***jf When will the outstanding eleven or so other monitors be installed and reporting?***

[See answer to fi]

***kl Does the EPA think it is good enough to announce there will be planned burn smoke about for many months of the year and that people just have to try to manage their lives the best way they can, even if this might mean being hospitalised or having to attend doctors and be put on life saving medication or equipment?***

The EPA's approach to reducing the impacts of smoke from planned burning is outlined under c/ above.

***ll There have been recorded time when planned burns have been lit when predicted wind directions have been towards populated areas. Were these breaches of interest to the EPA; what actions did the EPA take to protect population health?***

The EPA does not monitor all planned burns. However, many planned burns in Tasmania will be lit when the wind direction can be said to be broadly towards a populated area, whether this be a small town, hamlet, or city at some distance – ranging from several kilometres away to hundreds of kilometres at the other end of the island.

The smoke management standard, dispersion modelling using Bureau of Meteorology tools and the Coordinated Smoke Management System are all designed to avoid significant impacts on cities and settlements. The EPA's monitoring shows that it is not possible to avoid any detectable influence on air quality in populated areas, given the amount of burning that is carried out in autumn and the fact that many fires are lit in inland areas and the pattern of smoke dispersion will inevitably pass over populated areas to some extent. However, this does not necessarily mean that there are "breaches" as you state.

**m/ Is there a 'dedicated compliance unit' within environment Can you tell me more about this in connection to our air quality?**

The EPA has a Compliance and Investigation Section (CIS). The CIS role spans all elements of the EPA's jurisdiction, including air quality. Over the past few years the CIS have undertaken a number of investigations and enforcement actions in relation to air quality, mostly involving offensive odours.

**n/ Are any persons or industries in the state, exempt from creating air pollution that causes harm from their activities to other's health, eg, smoke?**

**[Paragraph re Section 50(1) A person who causes serious environmental harm...is guilty of an offence]**

There are no exemption provisions within EMPCA. However, s.66 (12) of the Fire Service Act provides that:

**(12) A person who lights and controls a fire in accordance with the conditions of a permit granted to that person under this section is exempt from the Environmental Management and Pollution Control Act 1994.**

**p/ Seeing the north of the state has been covered in smoke for many months of the year for many years now, how many prosecutions have there been for air quality breaches over the last five years?**

Please see m/ above.

Specifically in relation to smoke from planned burning, the CIS undertook an extensive investigation into an alleged breach of the Act caused by smoke from a planned burn near Scottsdale in 2006. In this instance, as a result of smoke, police closed the Scottsdale- Bridport road for a period of time and the local high school was evacuated. The evidence collected during the investigation was presented to the Director of Public Prosecutions (DPP). After considerable liaison and further investigation, the DPP, in accordance with his enforcement policy, chose not to take the case to court on the basis that there was not in his opinion a reasonable prospect of a successful prosecution.

**q/ Does the EPA think it is good enough just to have burners notify neighbours of planned burns when PM10 particle pollution can remain in the air for hours to days and travel up to 100 km, and that the more harmful PM2.5s can stop in the air from days to weeks and travel 1000 km+?**

**For this reason any Combined Smoke Strategy should apply to all sources of smoke in the state. It should not be handed over to the forest industries to monitoring themselves when and how they see fit, with whom they want on any advisory committee.**

The EPA's strategy to improve smoke management and reduce its impact is outlined in o/ above. We believe that notification of burning and having bodies that undertake extensive planned burning contributing to monitoring are both elements of a best practice system. As you are aware,

notification of burning is not necessarily restricted to neighbours and most air quality monitoring for particles is undertaken by the EPA.

The Smoke Management Working Group is convened by the Forest Practices Authority which is an independent regulator of forestry activities and does not undertake planned burning.

***r/ If we take the EPA to be responsible for what its name implies, ie, environment protection will the EPA/Environment now put in place a whole-of-state smoke strategy that runs for the full twelve months of the year? When?***

The EPA's strategy for dealing with smoke from planned burning applies to the whole of the State and all of the year.

***s/ When recognised health studies from around the world link particulate matter to severe health conditions and many deaths, does the EPA believe they acted appropriately by handing over self-regulation to our smoky forest industries which enables them now to burn when they like, and then to investigate the complaints themselves?***

The EPA's objectives are to improve the regulation of smoke from planned burning and to carry out monitoring that will improve knowledge about the movement and impacts of smoke from planned burning. The implementation and development of the Coordinated Smoke Management System and BLANKET is substantially advancing these objectives. As outlined above the Forest Practices Authority is not part of the "smoky forest industry".

***t/ The Tamar and surrounds have been subjected to stinking environmental smoke at unexceptional and harming levels while planned burns have been taking place and when domestic wood heaters are not being used. These events have been documented. Why won't the EPA act?***

The EPA has acted. It has been the EPA's air quality monitoring network and analysis that has provided evidence that planned burning has caused PM2.5 levels above the national reporting standard, particularly during autumn 2008. In turn, this provided a firm evidential basis for successfully arguing for an increased focus on the management of smoke from planned burning both at the industry level and with Government. The EPA has played a significant role in promoting the need for, and development of, the Coordinated Smoke Management System (CSMS) to regulate the amount of burning relative to dispersion conditions. The EPA will continue to play an active role in the evolution of this system. The EPA, with the assistance of the Tasmanian Fire Service, convened a meeting of the Tasmanian Fire Management Council in late 2008 to develop awareness of the effects of smoke from planned burning, promote the development of the CSMS and explore the willingness of the TFGA and Local Government to participate in it. Finally the EPA has funded and is rolling out the BLANKET system which will provide further objective information to assess the performance of and help fine tune the CSMS.

***Will the minutes of this meeting, together with my question, be put on record and made available on the EPA website?***

The purpose of offering face-to-face meetings with the EPA Board was to enable a free exchange of information and views. Minutes were not kept of the meetings, but each participant will receive a response in relation to the issues that they raised.