

25th August 2010

Ms Kerry Scott
Project Manager
NEPC Service Corporation
5/81 Flinders St
Adelaide SA 5000

Dear Ms Scott

Re: Submission on NEPM Review Ambient Air Quality

AFAC is the peak representative body for the fire and emergency service agencies from Australia and New Zealand and our members include land management agencies with responsibility for fire management on public land.

We submit the following feedback on the review of Ambient Air Quality Standards in the NEPM. Our particular interest is the impact of PM₁₀ standards on planned burning programs and the relationship to smoke from bushfires.

Fire is a natural part of the Australian landscape. Eucalypt forests and tropical savannahs have developed a tolerance to and dependency on bushfires for their ongoing health and survival. Native forest is a natural and enduring source of smoke. Any ambient air quality standard needs to recognise this reality. Recognition that natural and ecological fires are a background source of polluted air should be included in the standards. Subject to agreed definitions the exemption of natural fires from the standard for PM₁₀ is supported.

Climate change is expected to increase the duration and intensity of bushfires in the future, especially in the southern states with temperate climates.

Planned burns are conducted throughout Australia in native ecosystems for a variety of objectives. Ecological burns are conducted where the lack of fire is threatening the natural functions of that ecosystem. Silvicultural burns are undertaken to provide the conditions required to regenerate a forest following harvesting or dieback. Early season burns in the tropical environments are now conducted to generate greenhouse gas abatement targets and to reduce the likelihood of the more damaging late season burns. Fuel reduction burns are used to manage fuel levels under controlled conditions so as to reduce the intensity of bushfires when they occur. Bushfires of lower intensity are less destructive and more likely to be able to be suppressed. Fuel reduction burns are located strategically to protect important commercial, ecological and social assets such as townships, infrastructure, water catchments, endangered species habitat and commercial plantations.

Planned burns generate smoke that impacts on air quality in affected communities. Planned burns can be conducted on days when smoke will travel to less populated areas but this cannot be relied on in all circumstances. Fuel reduction burning is often conducted near the communities planned to be protected from bushfire.

The differences between smoke from bushfires and planned fires can impact on air pollution levels.

Bushfires generate massive amounts of smoke from the intense fire that consumes large quantities of fuel. They burn on hot days when there are strong convection currents that remove much of the smoke from the lower air-shed. Smoke from bushfires can travel long distances (including across Bass Strait) and affect neighbouring populations. Long duration campaign fires can expose regional communities to up to 6 weeks of smoke exposure.

Planned fires generally occur before or after the main bushfire season. They are conducted under mild conditions to improve controllability. These conditions may allow smoke to settle and linger around the planned burns. The total amount of smoke is less due to less fuel consumption but the exposure may be over an extended period.

Fuel reduction burning is conducted in all Australian states because the reduced risk from bushfire impacts out weighs the increased health impacts from smoke exposure. Any change to the ambient air quality standards needs to recognise this risk trade off.

The review document describes only the health risks associated with PM₁₀ levels. It does not consider any of the other risks to society. If the air quality standard was set at zero exceedences of 50 µg/m³ and this resulted in a restriction of planned burning programs then there is evidence that the reduced impact on human health from polluted air will be balanced by an increased risk to human health from bushfires with disastrous consequences. The Cost Benefit analysis that is part of the review process will be the critical component of the review as only then can one risk can be balanced against another.

The recent Victorian Bushfire Royal Commission has recommended a three-fold increase to Victoria's planned burning program to reduce the risk of high intensity bushfires in the future. This will result in greater numbers of exceedences of the PM₁₀ standard in Victoria. During 2008 four of the nine stations in Victoria monitoring PM₁₀ reported more than 5 exceedences. The EPA explained some of these occurrences were due to planned burning.

In a post climate change environment more planned burning will be required to reduce the risk from the more frequent and intense bushfires predicted.

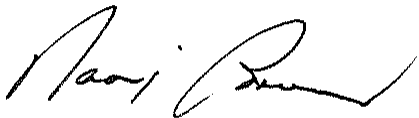
The location of PM₁₀ monitoring stations will have an impact on air quality measurement results. Stations in air-sheds that are substantially forested are going to be frequently affected by smoke from all types of fires. Sydney, Melbourne, Hobart and Perth can be regularly affected by smoke from forest fires. Darwin is surrounded by land where the vegetation is burnt every two to three years. Surprisingly it only experienced one exceedence during 2008 but the percentile data may show a greater exposure over all. The stations are sited to measure the air quality around concentrations of people but are also sited near industrial areas. The location of monitoring stations will affect the likelihood of conducting planned burning operations with unmeasurable smoke impacts.

Our recommendations are that:

- Bushfires and ecological burns are recognised as natural events and removed from the measure of exceedences; and
- The PM₁₀ standard continues to allow exceedences due to planned burning so that the overall risks to the health of the community can be reduced.

If NEPC decides to vary the AAQ NEPM we would like to be contacted for the next phase of consultation.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Naomi Brown', with a stylized, flowing script.

NAOMI BROWN
Chief Executive Officer

c.c. Gary Featherston

AFAC Manager, Rural & Land Management