

Environment Protection EPA

Environment Protection (Air Quality) Policy 2016

Public consultation report

Environment Protection (Air Quality) Policy – Public consultation report

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Abbreviations

Burning Policy	<i>Environmental Protection (Burning) Policy 1994</i>
DGLC	design ground level pollutant concentrations
DEWNR	Department of Environment, Water and Natural Resources
DSD	Department of State Development
EMS	environmental management system
EP Act	<i>Environment Protection Act 1993</i>
EPA	South Australian Environment Protection Authority
GLCs	ground level concentrations
PIRSA	Department of Primary Industries and Resources South Australia
NEPM	National Environment Protection Measure
EPP	environment protection policy

Summary

The development of the *Environment Protection (Air Quality) Policy 2016* (Air Quality Policy) is the result of the review of legislation, policies and guidelines used in the regulation and management of South Australia's air quality. The Air Quality Policy seeks to bring regulation and management of South Australia's air quality in line with modern practice. The policy will also simplify and provide clarity in relation to the administration of air quality legislation, and better protect and improve the health of the South Australian community and our environment.

Public consultation commenced on 22 October 2015 and ended on 15 January 2016. It included a mail-out to 1,500 targeted stakeholders and eight public consultation meetings across the state, as well as direct contact and discussions with key stakeholders.

A total of 57 submissions were received during the consultation period. Submissions overall indicated support for the Air Quality Policy in terms of consolidating and modernising air quality regulation.

During the consultation period, feedback from a broad range of stakeholders (including private citizens, businesses, industry, industry groups, local government, NGOs and state government agencies), indicated revisions to the Air Quality Policy would be required, to ensure the regulation of South Australia's air quality reflected contemporary practice. Subsequent revisions to the policy addressed this feedback, in particular to provisions governing the management and regulation of stack emissions and burning in the open.

Following the initial consultation phase, further targeted consultation was undertaken with those stakeholders impacted by further changes to either provisions for stack emissions or burning in the open. This ensures changes to the policy addressed feedback received during the consultation processes. The additional consultation undertaken from 30 March 2016 to 29 April 2016, provided the EPA the opportunity to ensure changes to the policy addressed feedback received during the initial consultation.

The EPA's comprehensive consultation process has resulted in valuable suggestions to improve the operation and scope of the policy. The proposed amendments as a result of consultation are included in section 6 of this report.

1 Introduction

The current *Environment Protection (Air Quality) Policy 1994* (current Air Quality Policy) and *Environment Protection (Burning) Policy 1994* are over 20 years old and outdated. The existing policies do not adequately reflect new research on air quality impacts from human activities. The new *Environment Protection (Air Quality) Policy 2016* (Air Quality Policy) seeks to both modernise and consolidate legislation in relation to the management of South Australia's air quality.

With the consolidation of legislative instruments and policies, the EPA will be better equipped to efficiently and consistently assess environmental and development authorisations, as well as ongoing air quality monitoring. The new Air Quality Policy includes 'scheduling' of criteria previously contained in various different sources, including the current Air Quality Policy, and the guidelines, *Air quality impact assessment using design ground level pollutant concentrations (DGLCs) Guideline* (2006) and the *Odour assessment using source modelling* (2007).

The Air Quality Policy will provide clarity and simplify the administration of air quality legislation and policies through consolidating the Air Quality, Burning and Solid Fuel Heater policies into a single instrument and formalising DGLCs and odour assessment criteria for use in air quality impact assessments.

The new policy will provide improved certainty to industry and the community. The EPA will be able to take a 'whole-of-airshed' approach to manage specific areas of concern. The localised ambient air quality objectives allows the EPA to declare localised air quality objectives for a specific area. These provisions will also help to better protect air quality by acknowledging that a number of factors determine risk to communities from exposure to air pollution.

Provisions regulating the sale and installation of wood heaters will target health impacts associated with smoke from wood heaters and address nuisance problems for neighbours. The Air Quality Policy will require compliance with various Australian Standards for the sale and installation of all wood heaters, ensuring that wood heaters are engineered to operate efficiently, decreasing emissions to the atmosphere. The policy requires firewood retailers do not sell domestic firewood with a moisture content of greater than 25% (dry weight) to protect the community against excessive smoke from burning of inappropriate fuel. There is also a requirement that the owner of a solid fuel heater does not permit excessive smoke to be emitted and a test for excessive smoke.

The Air Quality Policy will also streamline council management of burning in the open through providing consistent and coherent regulation across the state. These revisions will benefit councils and the community by providing greater control at the local level and targeting the health and nuisance impacts of smoke in built up areas.

The EPA has worked with representatives from the Country Fire Service (CFS), Department for Environment Water and Natural Resources (DEWNR) and targeted metropolitan councils to develop a better, and more workable approach to burning in the open provisions, in particular the management of fuel reduction burns for bushfire prevention purposes. The Air Quality Policy will simplify the management of burning, and provide a more workable and flexible approach, which allows burning in the open in specific circumstances, while minimising the impacts from smoke, particularly in built up areas.

The Air Quality Policy will also provide a new approach to managing stack emissions through adopting a risk-based approach (clause 18). This new approach will allow the EPA to consider ground level concentrations (GLCs), as set out under Schedule 2 of the revised policy, and the development of an in-stack concentration tailored to the particular activity. In this approach GLCs will be the primary driver for the evaluation of environmental risks and impacts from emissions to the atmosphere.

Overall the benefits of the Air Quality Policy will be significant. The policy will protect human health and the environment by providing a modernised and consolidated legislative framework. Councils will have greater control for burning at a local level where appropriate, industry will have greater certainty of criteria used to assess air quality impacts as part of development and environmental authorisations and the community will benefit through ongoing protection of South Australia's air quality.

2 History of the Environment Protection (Air Quality) Policy

Development of the new Air Quality Policy commenced in January 2012 after an extensive review of the existing regulatory framework used to manage and regulate air quality. The Air Quality Policy will result in one policy to regulate and manage air quality in South Australia, consolidating the current Air Quality Policy, the *Environment Protection (Burning) Policy 1994*, and the *Environment Protection (Solid Fuel Heaters) Policy 2015*. The Air Quality Policy will also incorporate into legislation guidelines related to air quality impact assessment and odour assessment and will revoke the *Environment Protection (Motor Vehicle Fuel Quality) Policy 2002*, as this is now fully covered by the Commonwealth's *Fuel Quality Standards Act 2000*.

The decision to update the current Air Quality Policy acknowledged the need to improve the ability to manage and regulate air quality to better protect human health and the environment. The existing regulatory framework used to manage air quality is dated (some parts are over 20 years old) and does not adequately reflect new research on air quality impacts from human activities. Key elements of the revision include:

- consolidating the legislation and policy instruments into a single instrument
- reviewing and updating a range of emission levels of pollutants discharged to the atmosphere
- providing a legislative basis for use of ground-level criteria currently contained in other instruments which are employed by the EPA when assessing environmental authorisations or development authorisations
- giving the EPA the means to declare that localised ambient air quality objectives apply to an area
- aligning South Australia with other jurisdictions by making sure that the sale and installation of wood heaters must be compliant with Australian standards
- protecting air quality, human health and consumers by prohibiting the sale of firewood with a greater than 25% dry weight.
- requiring that owner/operators of solid fuel heaters to manage their heaters efficiently and not allow excessive smoke to be emitted to the air. There will be a test to determine what constitutes 'excessive smoke'.
- providing for burning in the open to be managed at the local level with the aim of minimising the impacts of smoke in built-up areas
- allowing the EPA to take a risk-based approach to the management and regulation of air quality impacts in relation to matters under Part 6 of the Act.

In developing the Air Quality Policy the EPA has consulted extensively with the community, industry and business, non-government organisations, local councils and other government agencies. The final policy reflects the contributions of these groups.

3 Consultation

Consultation on the Air Quality Policy has been extensive. The draft policy was released for public consultation in October 2015 for a three-month period. A mail-out was sent to 1,500 targeted stakeholders, and print advertisements featured in metropolitan and regional press, the *State Government Gazette* and *Local Government Association Circular*. Information was also made available on the [EPA website](#) and SA Government's online consultation hub [YourSAy](#).

Community consultation forums were held at eight locations across metropolitan Adelaide and regional South Australia.

- Wynn Vale, Thursday 5 November 2015
- McLaren Vale, Monday 9 November 2015
- Port Pirie, Friday 13 November 2015
- Le Fevre Peninsula, Monday 16 November 2015
- Mount Gambier, Thursday 19 November 2015
- Karoonda, Monday 23 November 2015
- Wudinna, Wednesday 25 November 2015
- Stirling, Friday 11 December 2015.

A total of 57 submissions were received from local government, individuals, NGOs, government agencies, business and industry. In addition to formal consultation mechanisms, the EPA met with a range of stakeholders who requested face-to-face meetings.

Following initial consultation, targeted consultation was also undertaken to address feedback received during the consultation period in relation to provisions relating to burning in the open and stack emissions.

As part of the additional consultation processes, face-to-face meetings were undertaken with stakeholders to discuss changes to provisions for burning in the open and stack emissions. Discussions with the following stakeholders took place during the extended consultation period from 30 March to 29 April 2016:

- Adelaide Hills Council
- Arrium/OneSteel
- Barossa Council
- BHP Billiton
- Burnside Council
- Ceduna Council
- Cement Industry Federation and Cement Concrete and Aggregates Australia
- Conservation Council SA
- Copper Coast District Council
- Country Fire Service
- Country Fire Service Regional Volunteer Management Committee
- Cleve Council
- Department of State Development
- Environmental Defenders' Office
- Grant District Council
- Horticultural Coalition of South Australia

- Iron Road
- Local Government Association
- Mitcham Council
- Mount Barker Council
- Mount Gambier Council
- Onkaparinga Council
- Primary Producers SA
- Oz Minerals
- SA Chamber of Mines and Energy
- SE Pine
- Tumby Bay Council
- Tumby Bay District Bushfire Working Group
- Victor Harbour Council
- Wine and Grape Council of South Australia
- Yorke Peninsula Council.

In addition to meetings, letters were also sent to all organisations and individuals that made an initial submission addressing provisions relating to either burning in the open or stack emissions within the Air Quality Policy. This letter summarised how the policy had changed since the initial draft was provided for consultation and provided a copy of the new draft policy, with a limited period of time to submit any further comments.

Consultation has been invaluable in developing the policy to achieve positive outcomes for all stakeholders. In particular, the additional consultation processes have assisted in strengthening provisions relating to burning in the open and stack emissions.

4 Submissions received during consultation

A total of 57 submissions were received during the consultation period on the Air Quality Policy. Submissions included eight from councils, six from government agencies, 13 from private citizens, 18 from business/industry and 12 from non-government organisations. Written feedback was also received during the additional targeted consultation period, which resulted in some minor revisions to the Air Quality Policy, following significant amendments to provisions relating to stack emissions and burning in the open.

The views contained within the submissions varied from clause to clause, but overall indicated support for the revised policy. Where concerns were raised regarding significant provisions in the Air Quality Policy, the EPA worked with stakeholders to review the policy and establish a revised approach. A full list of submitters is included as [Appendix A](#) of this report.

Summary of key issues raised

In considering submissions, the EPA identified a number of issues which required amendment to existing clauses. This included clause 5 (stack emissions) and clauses 8 and 9 (burning in the open). A summary of the issues raised and the actions taken is provided below.

Burning in the open

The Burning Policy, currently prohibits open burning in prescribed areas such as the Adelaide Metropolitan councils, Riverland councils, and a number of other township areas across the state. The intent of the Air Quality Policy is to incorporate the Burning Policy and extend its scope to provide regulation of open burning in all council areas. Alongside a general prohibition on burning, a number of legitimate burning activities are to be excluded from regulation. These included:

- all activities undertaken in connection with fire-fighting and fire prevention
- the disposal of agricultural and forestry waste
- for the purpose of preparing food or a beverage
- for the purpose of heating an outdoor area
- where a council outside of metropolitan Adelaide applied to the EPA have all or part of their area excluded from the general prohibition.

Feedback from public consultation highlighted issues with the drafting and operation of clauses 8 and 9 in relation to the workability of the proposed approach. For example, councils raised concerns that clause 8 did not provide for burning for fuel reduction purposes in metropolitan Adelaide, which could be a significant issues for councils in peri-urban areas.

In consultation with stakeholders, in particular, metropolitan ‘fringe’ councils, the EPA developed a revised approach for burning in the open. The new provisions simplify the management of burning in the open, provide a more workable and flexible approach that allows burning in specified circumstances (ie burning to reduce the risk of bush fires through fuel reductions burns). This new approach better allows for the protection of the health of the community and environment through minimising the impacts of smoke, particularly in built-up areas, while still allowing necessary burning activities.

Stack emissions

In the development of the new Air Quality Policy, maximum stack emissions were reviewed and benchmarked against those of other jurisdictions (international and national). Key updates to stack emissions criteria are in Schedule 1 of the Air Quality Policy and include an amendment of criteria for particulate matter (maximum pollutant level has been reduced from 250 mg/m³ to 100 mg/m³) and the addition of sulfur dioxide emission criteria for sulfuric acid plants.

The Air Quality Policy incorporates the use of ground level concentrations alongside stack emissions. Feedback received during consultation was that it was not clear within the draft policy how these similar provisions would be applied when making licencing considerations. This concern was also reflected in submissions received during consultation which highlighted that mandating in-stack limits had the potential to cause significant costs to industry with little environmental benefit. As an example, an activity may not meet in-stack limits for a pollutant, however the ground-level impacts are less than the relevant maximum ground level concentration for the pollutant. In practice, the EPA already utilises ground level concentrations (GLCs) when determining potential risk or actual environmental impacts from atmospheric emissions.

The EPA will revise the policy to reflect the proposed approach to regulating and managing stack emissions. GLCs will be the primary driver for the evaluation of environmental risks and impacts from emissions to the atmosphere and will be used to set in-stack emission levels. This new approach will require the EPA to take into account emissions criteria set out under the Schedules for ground level concentrations, odour and stack emissions when determining a development application or environmental authorisation. This will allow a more flexible risk-based approach in the development of an in-stack concentration tailored to the particular activity, based on emissions from the activity itself, background concentrations from particular pollutants from other sources, and the sensitivity of the receiving environment.

Suggested improvements to the policy

As a result of the comprehensive consultation process the policy will be amended to reflect numerous suggested improvements. The changes include strengthening provisions for the sale of solid fuel heaters. The new policy will require that all new solid fuel heaters sold and installed are compliant with *AS/NZS 4012:2014: Domestic solid fuel burning appliances – Method for determination of power output and efficiency*. This is in addition to *AS/NZS 4013:2014 Domestic solid fuel burning appliances – Method for determination of flue gas emissions*.

Provisions for the sale of green firewood have also been revised to include a definition for seasoned firewood to allow a dry weight moisture content of 25% (equivalent to a wet weight moisture content of 20%). This is consistent with the *Voluntary Code of Practice for Commercial Firewood Suppliers*.

Support for elements of the policy

Submissions were generally supportive of the intent of the new Air Quality Policy in terms of modernising and consolidating the regulation of air quality legislation, policy and instruments in South Australia, to better protect human health and the environment. A number of submissions presented a thorough assessment of each clause in the policy and noted support or otherwise, or proposal for amendment. All of these detailed suggestions are discussed in the following section.

5 Issues – clause by clause

Clause 1 – Short title

No issues raised during consultation.

Clause 2 – Commencement

No issues raised during consultation.

Clause 3 – Interpretation

One submission noted the clause referred to the *Ambient Air Quality Assessment Guidelines 2015*, which have not yet been published. The same submission also recommended the *Australian/New Zealand Standard for Timber – Methods of Test Method 1: Moisture Content (AS/NZS 1080.1:2012)* is referenced in the policy as best practice for testing of moisture content in wood. It was also suggested that a definition of seasoned firewood should refer to hardwood or softwood that has an average moisture content of less than 25% (dry weight).

Response:

The policy will be amended to refer to the updated *Ambient Air Quality Assessment 2016*. This document will be published and publicly available when the policy comes into effect on 23 July 2016.

Revisions will also be made to the policy to include *AS/NZ 1080.1:2012* as the testing method approved by the EPA, for moisture content in accordance with the requirements of clause 16(3) Sale of green firewood. Seasoned firewood is defined by the *Voluntary Code of Practice for Commercial Firewood Suppliers* as having a moisture content of 25% (dry weight) or less. This was agreed to by the Natural Resource Management (NRM) Ministerial Council and has been widely adopted by the commercial firewood industry as best practice. This will be reflected in the revised policy.

The policy will also be amended to include relevant 'recreational activities' relevant to clause 8 Burning in the open. This will ensure that activities such as campfires, scouting and similar outdoor recreational activities are considered by the policy.

Clause 4 – Application of policy

Commencement of policy

One submission requested a case-by-case transition for wood processors that have different ages and types of boiler technology, with this flexibility stated in the policy.

Response:

Changes to the way licence conditions are set for stack emission limits that will result in risk-based assessment, will provide additional flexibility within the Air Quality Policy and allow consideration of such matters. The policy also includes a two-year transition period (Schedule 5, Part 2) which will provide a safeguard for existing licensees, in the event the requirements of the policy impact on operations that were lawful prior to the introduction of the new Air Quality Policy.

Exemptions

The Department for Environment, Water and Natural Resources (DEWNR) proposed to be included as an organisation that undertakes burning under legislation that the policy does not apply to. DEWNR undertakes burns for fuel reduction, prescribed burns and ecological burns on land managed by several state government agencies.

Response

Revisions will be made to clause 4(1) to exclude DEWNR from application of the policy for management activities undertaken under relevant legislation, including fuel reduction burns, prescribed burns, cultural burning, weed management and ecological burns.

Clause 5 – Burning of matter in the open in council areas

Many submissions raised issues with the drafting and operation of what was originally, clause 8 Burning of matter in the open and clause 9 Council responsibility for burning of matter in the open, in relation to the workability of the proposed approach. As an example, submissions raised concerns that clause 8 did not provide for burning for fuel reduction purposes in metropolitan Adelaide. Other issues raised in submissions included the requirement to avoid burning of matter within 200 metres of any adjacent residential premises for burning on non-residential premises being difficult to apply. In the second round of consultation held to discuss burning in the open provisions, some stakeholders raised concerns that the current definition of agriculture did not adequately address burning for horticulture, viticulture and orchardists.

Response

In consultation with targeted stakeholders (including metropolitan ‘fringe’ councils), the EPA has developed a revised approach for the management of burning in the open. The revised provisions intend to simplify the management of burning in the open, to provide a more workable and flexible approach that would allow burning in specified circumstances.

Burning in the open will still be generally prohibited across the state, but exemption from the general prohibition is prescribed in specified circumstances (i.e. to cook food or for fuel reduction purposes). The prohibition is also subject to written consent from the EPA, council or council officer allowing flexibility for burning that is not contemplated by the prescribed exemptions, but that is necessary. This revised approach will better allow for the protection of the health of the community and environment through minimising the impacts of smoke, particularly in built-up areas.

Further revisions to the Air Quality Policy will also be made to allow the use of comfort fires, but in metropolitan Adelaide and townships, the status quo will still apply allowing only the use of charcoal. This will minimise health impacts of smoke in built-up areas. Outside metropolitan Adelaide and townships charcoal or dry wood and/or plant matter can be used for comfort fires in chimineas, fire pits and braziers.

The requirement to avoid burning of matter within 200 metres of any adjacent residential premises for burning on non-residential premises has been removed.

To address concerns raised regarding burning for horticulture, viticulture and orchardists, the definition of agriculture has been amended to incorporate these activities for the purpose of the policy.

Clause 6 – Burning permits

Several submissions from councils highlighted issues with the operation of provisions for burning in the open, in terms of the workability of the proposed approach and lacking flexibility for councils to manage burning within communities.

Response

Clause 6 Burning permits will allow the EPA or a relevant council delegate to issue a burning permit authorising a person or a class of persons to carry out certain burning activities outside the fire danger season. This includes burning of agriculture or forestry waste, burning of vegetation for fire prevention or control and burning of vegetation for any other purpose. This revised approach will simplify the management of burning in the open, providing a more workable and flexible approach.

Clause 7 – Burning of prohibited substances

Several submissions raised concerns regarding bans on certain chemicals, particularly treated timber and timber preservation chemicals.

Response

Concerns were raised regarding bans on burning of certain substances as part of an activity such as using waste wood (such as treated timber) as a fuel source. These concerns can be addressed through clause 7(2), which allows

licence-holders with environmental authorisations to burn specified materials (such as treated timber) if in accordance with that environmental authorisation.

Clause 8 – Environmental harm

A submission suggested that the emissions of ash may not necessarily be considered environmental harm, if the activity producing the emission is carried out in compliance with an environmental authorisation and any associated conditions.

Response

The intention of clause 8, Environmental harm is to remove doubt as to what constitutes environmental harm by establishing that the emission of ash from burning a prohibited substance constitutes environmental harm. The *Environment Protection Act 1993* contains offence provisions that consider degrees of environmental harm in determining such offences. Environmental harm does not of itself equate to an offence; it must be of a degree to satisfy the elements of each of the offences.

Clause 9 – Sale of solid fuel heaters

A range of views were expressed in submissions in relation to clause 9 and the sale of solid fuel heaters. A submission suggested provisions should require all solid fuel heaters sold in Australia to comply with a standard that prevents any interference and that the sale of second-hand wood heaters should be restricted to those that are compliant with the current standards. In relation to certification of wood-burning appliances, one submission raised the need for independence in any processes relating to certificates of compliance. Other submissions suggested that solid fuel heaters should be banned and existing wood heaters phased out.

Response

The policy will not specify particular organisations as certifying bodies for the purposes of issuing certificates of compliance at this time. However, consideration will be given to this proposal as part of implementation work.

The SA Government is implementing the *National Clean Air Agreement* which includes requirements on solid fuel heaters, as well as a number of other complementary measures to improve air quality.

Also, clause 10 already restricts the sale of all solid fuel heaters that are not compliant with the standards specified.

Clause 10 – Installation of solid fuel heaters

A submission suggested that certificates of compliance in relation to installation could operate as insurance against faulty installation. Additional submissions highlighted support for referencing *AS/NZS 2918:2001 Domestic solid fuel burning appliances – Installation*, but also that this standard will shortly be updated with a revised version. The policy should also acknowledge that the standard details requirements for installations of solid fuel heaters, not simply recommendations. Further recommendations suggested requirements include that solid fuel heaters should be upgraded to comply with the standards prior to sale of a premises and that the policy include a reference to the EPA's guideline in relation to flue termination heights for combustion heaters.

Response

Several suggestions raised through the submission process will be further progressed during the implementation stage of the policy's development. This includes investigating potential for certificates of compliance to be issued as part of installation processes. Similarly in relation to flue heights, this is an implementation consideration that will be progressed in line with the conditions stated in AS/NZS 2918 as a minimum.

The policy will not include a requirement to upgrade solid fuel heaters that are a fixture in a premise that is subject to sale so that the heater complies with the standards. The policy will be updated to reflect that AS/NZS 2918 provides requirements for installation.

Public consultation also revealed some confusion generally with the ability to interpret and understand the intent of this clause, in particular subclause (2) and (3). These sub-provisions will be reviewed to ensure they reflect the intent of the policy and standards for installation.

Clause 11 – Interference with solid fuel heaters

A submission in relation to clause 11 Interference with solid fuel heaters suggested that where genuine repair work is undertaken on an existing non-compliant solid fuel heater, that regard is given to compliance with AS/NZS 2918:2001 in relation to minimum air flows. Other submissions indicated broad support for restrictions on interference with solid fuel heaters.

Response

It should be noted that the interference provision of the Air Quality Policy is only intended to apply to heaters that are compliant with the specified standards and prevent any interference with heaters that may change compliance status.

Clause 12 – Prevention of excessive smoke

Several submissions raised concerns regarding the test for excessive smoke, this included that the test would be difficult to enforce as a subjective assessment. Submissions also flagged concerns regarding compliance costs for councils, and also suggested the provision should be mandatory to allow authorised officers to issue an expiation.

Other submissions were supportive of the excessive smoke test and suggested broadening the scope of the provisions to also include smoke from other sources and not just solid fuel heaters.

Response

The test provided in clause 12(2) has been used in other jurisdictions to successfully manage excessive smoke and nationally, the Environment Ministers have agreed to develop an approach for a test for excessive smoke. The EPA has adopted this method of testing because of its usability and simplicity. The test is currently used to determine nuisance smoke and is recommended within EPA educational materials. Alternatives such as measuring particles and infringement on neighbouring properties are more resource and time intensive.

Noting the feedback provided, detailed instructions for testing for excessive smoke will form part of implementation works for the revised policy.

Suggestions were made to extend the test to apply to other sources of excessive smoke (such as smoke from wood ovens). The test under the policy is specifically for solid fuel heaters. Section 25 and Part 9 of the EP Act can be used to deal with nuisance smoke from sources such as wood ovens.

Clause 13 – Sale of green firewood etc

Various submissions from different groups supported the intent of provisions contained within clause 13 to prevent the sale of green firewood, highlighting best practise contained within the *Voluntary Code of Practice for Commercial Firewood Suppliers* (produced by the Firewood Association of Australia) for moisture content levels defined for seasoned firewood (25% dry weight and 20% green weight).

Response

The *Voluntary Code of Practice for Commercial Firewood Suppliers* has been agreed to by the commercial firewood industry and accepted as best practice by the NRM Ministerial Council. This code of practice defines 'seasoned firewood' as having a moisture content of 25% (dry weight) or less; on a green weight basis this is equivalent to 20%. The policy will be updated to reflect this.

Clause 14 – Localised ambient air quality objectives

Arrangements for making a declaration

Some submissions raised concerns regarding the EPA's ability to declare localised objectives for ambient air quality. In particular, this included concerns regarding the consultation process and what factors would be considered in making a determination. Submissions also generally requested further detail of how a declaration could be made. One submission raised concerns that the EPA may use the power to apply less stringent ambient air quality objectives to a particular region.

Response

The policy provides a head power that will allow the EPA to develop an approach to localised ambient air quality objectives, which may include guidelines, strategies and priority areas, etc. The policy allows the Minister to declare an area where localised air quality objectives apply. It is not intended that this clause or the head power will result in less stringent ambient air quality objectives in an area, but may lead to tighter objectives.

Being able to take a whole-of-airshed approach will enable the EPA to manage specific issues and risks to communities. The declaration of localised objectives will be at the Minister's discretion and the policy sets out the broad consultation requirements, which requires that the views expressed by those consulted must be considered. Further detail regarding how localised objectives will work in operation will be provided in guidelines.

Clause 15 – Taking reasonable and practical measures to avoid emissions of pollutants from premises

General concerns in relation to stack emissions

Several submissions raised concerns regarding the ability of the EPA to flexibly and fairly regulate air quality with the approach to stack emissions contained within the policy. Specifically, concerns were raised that the mandatory requirement to meet in-stack concentration limits does not reflect modern practice or a risk-based approach to management of environmental impacts.

Response

In considering the feedback provided during consultation, the EPA has revised the approach for stack emissions to better reflect contemporary practice and a risk-based approach to management of environmental impacts. While in-stack concentration limits provide an important parameter for process performance feedback and control, it does not in itself contemplate a measure of environmental risk or the amount that a pollutant has direct impact at ground level or contributes to total impacts within a broader air shed.

The ground level concentration (GLC) is the main value that the EPA uses for determining potential risk or actual environmental impacts from atmospheric emissions. The policy will be revised to reflect that GLCs will be the primary driver for the evaluation of environmental risk and impact from emissions to the atmosphere. Assessment against GLCs to determine appropriate stack emission limits will allow a risk-based and tailored approach to the particular activity.

Responsibilities of the EPA to manage stack emissions

A submission raised concerns that in future the EPA may shift responsibility for managing stack emissions to the councils.

Response

This is not the intention of the EPA or the policy, and the EPA will retain responsibility for managing stack emissions and licensed premises.

Community concerns

A submission suggested that in relation to emissions of pollutants from premises that the measure should include the amount of pollutant emitted by a facility, rather than particular concentration in an airstream.

Response

The amended Air Quality Policy proposes to apply a risk-based approach to managing stack emissions. This includes revisions that will better allow the EPA to take a risk-based approach to regulation and management of air quality through assessing GLCs, odour criteria, stack emissions and fugitive emissions. This does not preclude the consideration of pollutant load requirements within a licence.

Clause 16 – Testing points

No issues raised during consultation.

Clause 17 – Amendment of policy by Gazette notice under section 32 of Act

Feedback in relation to clause 17 focused on ensuring extensive consultation in relation to any amendment of the policy by gazette notice, in particular in relation to any declaration of localised air quality objectives.

Response

Clause 17(3) sets out the broad consultation requirements to be considered in relation to amending the Air Quality Policy. The consultation requirements include that relevant industries and the community likely to be affected are consulted and the views expressed by those consulted are considered. In relation to a declaration by the Minister, this requirement ensures an impacted council, industry, business and community will be engaged as part of the consultation process.

Clause 18 – Matters in relation to Part 6 of Act

Clause 18 deals with matters that the EPA must take into account in determining an environmental and/or development authorisation under Part 6 of the EP Act for any activity or development. Submissions in relation to these provisions within the Air Quality Policy varied significantly. Some submissions focused on the need for further information on what discretion may be applied to operations and proposals and the basis for this discretion. Submissions also noted that the powers contained within clause 18 are very broad and could provide the EPA with unrestricted powers in relation to point source modelling. In contrast, other submissions raised concerns that Part 6 should feature more prominently in the policy given its connection to human health and taking a risk-based approach to management of the impacts of air quality through assessment of ground level concentrations of specified emissions from activities.

Response

Following consultation on this clause the policy will be revised. Of most significance is that the policy will reference a risk-based approach in relation to determining matters under Part 6 of the Act. This will include an approach to regulation and management of air quality through structured assessment with consideration to ground level concentrations, odour criteria, stack emissions and fugitive emissions, as well as acknowledging the current approach to air quality through the use of best available technology, economic analysis and application of the general environmental duty.

It should also be noted that the Air Quality Policy refers to numerous guidelines, including the Ambient Air Quality Assessment 2016 which sets out assessment, testing, monitoring or modelling approaches for those undertaking activities or developments.

Schedule 1 – Prohibited substances

Several submissions flagged concerns regarding bans on burning of certain substances (ie treated timber), while other submissions suggested further inclusions for prohibited substances (ie railway sleepers).

Response

It should be noted that clause 7(2) of the policy allows licence-holders with an environmental authorisation to burn specified materials in accordance with the authorisation.

Specifically in relation to the suggestion that railway sleepers should be included in the list of prohibited substances, the EPA notes that these materials would likely contain various prohibited substances, which are listed wastes under

Schedule 1 of the EP Act and therefore the burning of these substances is potentially already prohibited under the provision.

Schedule 2 – Ground level concentrations

Several submissions raised concerns regarding the need for additional guidance materials on the application of the Air Quality Policy, especially in relation to where the criteria will need to be met and whether background sources will be considered.

It was also noted that the development of additional guidance materials should be undertaken with a view to achieving consistency with relevant guidelines for the mining industry being prepared by the Department of State Development (DSD).

Various submissions also raised the issue of natural and exceptional events and how these will be considered in determining air quality requirements and managing stack emissions.

Submissions also indicated that there was widespread belief that the policy utilised criteria in Schedule 2 that were developed for the purpose of the *National Environment Protection (Ambient Air Quality) Measure 1998* (Ambient Air Quality NEPM) and were not appropriate.

Specific comments were also provided on criteria included in Schedule 2. In particular the need to include dioxins and the classification of particulate matter as a Group 1 Carcinogen. One submission made several suggested amendments to the pollutants listed in Schedule 2.

Response

In relation to concerns raised regarding the new stack emissions criteria, this will be addressed through a revised approach to the regulation and management of stack emissions under the Air Quality Policy. This new revised approach to licencing will take a risk-based approach to the management of impacts and also utilise a case-by-case risk-based approach. In this revised approach, ground level concentrations will be the primary driver for the evaluation of environmental risks and impacts from emissions to the atmosphere and will be used to set in-stack emission levels.

This new approach will require the EPA to take into account emissions criteria set out under the Schedules for ground level concentrations, odour and stack emissions when determining a development application or environmental authorisation. Revisions to the use of stack emissions will allow more flexibility for the EPA to adopt a case-by-case, risk-based approach to the regulation of all emissions to air. This includes the requirement for in-stack concentrations that are tailored to the particular activity, based on emissions from the activity itself, background concentrations from particular pollutants from other sources and the sensitivity of the receiving environment.

It should be noted that there is no intention, as per current practice, to penalise operators for unforeseen background levels of particulates arising from natural or exceptional events (for example, dust storms, drought, bushfires, etc).

The EPA will ensure that implementation guidance on the use of GLCs will be included in the Ambient Air Quality Assessment 2016 for broader industry. DSD publication *Air Quality Guideline for the Mining Industry* will also include guidance text relevant to the mining industry. The EPA will work with DSD to ensure that there is consistency in all guidelines developed and the policy.

In relation to feedback regarding the requirement for additional context, additional guidance will be provided in the accompanying explanatory paper and training materials.

The emissions criteria set out in the Air Quality Policy schedules are not those of the Air Quality NEPM but are South Australian criteria derived from a range of sources, including international and national research, and are used for regulatory purposes. The values used for particles have been adopted into the Air Quality Policy as South Australian criteria because they have been through rigorous health assessments for Australian conditions. The GLCs in Schedule 2 are intended to allow for risk-based evaluation of impacts and design modelling and monitoring programs related to

specific activities. Clause 18 requires the Authority to have regard to the GLCs when making decisions under Part 6 of the EP Act.

In relation to the publication of monitoring data, general ambient air quality data from the EPA's air quality monitoring network is currently available on the EPA website. It should also be noted that some proactive industries already make significant data publicly available.

With regards to specific suggestions in relation to criteria included in the Schedule, the EPA will be making some minor revisions to reference particulate matter as a Group 1 Carcinogen to achieve consistency with the International Agency for Research on Cancer Working Group determination.

In relation to suggestions of additional pollutants that should be listed in Schedule 2, there will be extra information in the *Ambient Air Quality Assessment 2016* guideline on how to determine the appropriate GLC for a pollutant that is not listed in the policy.

Schedule 3 – Odour levels

A minor question was raised in the only comment received in relation to Schedule 3, requesting clarification regarding the measurement for odour units.

Response

The 'number of people' threshold requirements referred to in Schedule 3 relates to impacts on communities and is not targeted at population density.

Schedule 4 – Stack emissions

Feedback on Schedule 4 focused on concerns regarding changes to maximum pollutant levels and the potential to cause significant compliance, financial and operational impacts to existing operations, without necessarily achieving measurable environmental gains or minimising impacts on sensitive receptors.

One submission raised concerns that stack emission limits were standardised regardless of whether they were located in built-up or less populated areas.

Response

Concerns raised regarding new stack emission criteria will be addressed through a revision to the approach to regulation and management of stack emissions under the policy. In this revised approach the EPA will take a risk-based approach to the management of impacts with ground level concentrations as the primary driver.

In relation to concerns regarding standardised stack emission limits across built-up and less populated areas, this will be addressed through the primary consideration of ground level concentrations during assessments.

With regards to specific suggestions in relation to criteria included in the Schedule, the EPA will be making some minor updates, including the addition of dioxins and furans for specific industries (i.e. energy from waste).

Part 1 – Revocation of environment protection policies

Feedback in relation to this clause principally related to a request for further information on and concerns in relation to revoking the Ambient Air Quality NEPM.

Response

The environment protection policy constituted of the Ambient Air Quality NEPM will not be revoked.

Part 2 – Transitional provisions

No issues raised during consultation.

6 Summary of key recommended changes

Part 1 – Preliminary

Clause 1 – Short title

No changes proposed.

Clause 2 – Commencement

It is intended that the policy will come into operation on 23 July 2016, the date that the *Environment Protection (Solid Fuel Heater) Policy 2015* expires.

Clause 3 – Interpretation

Include reference to *AS/NZS 1080.1:2012 Timber – Methods of Test Method 1: Moisture content* published jointly by Standards Australia and Standards New Zealand. This standard is a 'testing method approved by the EPA' for testing the moisture content of wood in accordance with requirements of clause 16(3) Sale of green firewood.

Amend the *Ambient Air Quality Assessment Guideline 2015* referred to under 'prescribed testing, assessment, monitoring or modelling method' definition. This guideline needs to be updated to *Ambient Air Quality Assessment 2016*.

Include definition of 'agriculture'.

Include definition for *AS/NZS 4012:2014 Domestic solid fuel burning appliances – Method for determination of power output and efficiency*.

Include prescribed Acts to which clause 4(1)(g) applies.

Clause 4 – Application of policy

Policy will not apply to fire management activities undertaken under prescribed Acts (including fire fighting, training of fire fighters, fuel reduction burns, prescribed burns, cultural burning, weed management and ecological burns).

Part 2 – Air quality measures

DIVISION 1 – BURNING OFFENCES

Clause 5 – Burning of matter in the open in council areas

Clause 5 updated with a revised approach. This includes that burning of matter by fire in the open within council areas is prohibited across SA. Exemption from the general prohibition is subject to written consent, or by a notice on website/in local newspaper, from the EPA, council or council officer. Exemptions include:

- Preparation of food or beverage.
- Use of a brazier, chiminea or fire pit for purpose of heating an outdoor area. Within metropolitan Adelaide or townships, only the burning of charcoal is permitted for this purpose/activity. Outside of metropolitan Adelaide and townships, burning of charcoal, dry timber or other primarily dry plant matter is permitted for this purpose/activity.
- Burning in a council area outside metropolitan Adelaide or townships situated within a council area, for disposal of agricultural and forestry waste.
- Within metropolitan Adelaide and townships situated within a council area, the EPA or a council may permit burning for disposal of agricultural or forestry waste by notice in writing or by notice on their website/local newspaper.
- Any relevant burn-offs are to be conducted in accordance with SA CFS *Code of Practice for Broad Acre Burning 2015*.

- Burning for recreational purposes (includes campfires, scouting, similar outdoor activities, etc) outside metropolitan Adelaide or townships.
- Burning off for the purpose of reducing the hazard of bushfires – provided that in metropolitan Adelaide, and townships situated within a council area, the EPA or a council has permitted it by notice in writing and by notice on their website/local newspaper.
- In other areas across the State, burning off for the purpose of reducing hazard of bushfires is to be conducted in accordance with SA CFS *Code of Practice for Vegetation Pile Burning 2015*.
- The disposal, in accordance with an environmental authorisation, of gaseous waste produced in the course of a prescribed activity of environmental significance.

These requirements have effect in addition to the general environmental duty (section 25) and general offences contained in Part 9 of the EP Act.

Clause 5 amended following public consultation to include greater flexibility for councils in the management of permitting. Prescribed permit conditions will not be included in the Air Quality Policy, to allow a tailored approach to management of burning to suit the needs of the community, council and local conditions.

Insert definition of 'plant matter' so that it includes dry paper, cardboard, garden prunings, etc.

Insert definition of 'township' so that it has same meaning as that under *Local Government Act 1999*.

Clause 6 – Burning permits

Clause 6 amended to allow more flexibility in the management of permitting, enabling councils to tailor management of burning to suit the needs of the community, council and area. Under clause 6 a permit can be by notice in writing or by notice on a website and newspaper circulated in a council area.

Clause 7 – Burning prohibited substances

No changes proposed.

Clause 8 – Environmental harm

No changes proposed.

DIVISION 2 – SOLID FUEL HEATERS

Clause 9 – Sale of solid fuel heaters

Amendment to policy for all solid fuel heaters to comply with *AS/NZS 4012:2014 Domestic solid fuel burning appliances – Method for determination of power output and efficiency*, following the December 2015 agreement by Environment Ministers to the National Clean Air Agreement.

Clause 10 – Installation of solid fuel heaters

All solid fuel heaters installed will need to comply with the standard AS/NZS 4012:2014.

Clause revised to reflect that AS/NZS 2918 provides requirements under which a solid fuel heater must be installed. This is a mandatory provision.

Clause 11 – Interference with solid fuel heaters

No changes proposed.

Clause 12 – Prevention of excessive smoke

The policy will be revised to reflect that clause 12 is a mandatory provision.

Clause 13 – Sale of green firewood etc

Clause 13 updated. The firewood retail industry defines ‘seasoned fire wood’ as not exceeding 25% dry weight moisture content in line with the *Voluntary Code of Practice for Commercial Firewood Suppliers*. This code was agreed to by the NRM Ministerial Council and has been widely adopted by the commercial firewood industry and accepted as best practice. Clause revised to reflect 25% dry weight requirement.

Clause 13 is a mandatory provision.

The moisture content of firewood under clause 16(3) shall be determined in accordance with *AS/NZS 1080.1:2012 Timber – Methods of Test Method 1: Moisture content* published jointly by Standards Australia and Standards New Zealand, as in force at the commencement of this policy;

DIVISION 3 – LOCALISED AIR QUALITY OBJECTIVES**Clause 14 – Localised ambient air quality objectives**

No changes proposed.

DIVISION 4 – MISCELLANEOUS**Clause 15 – Taking reasonable and practical measures to avoid emission of pollutants from premises**

No changes proposed.

Clause 16 – Testing points

No changes proposed.

Part 3 – Matters relating to Part 5 of the Act**Clause 17 – Amendments of policy by Gazette notice under section 32 of Act**

No proposed changes.

Part 4 – Matters relating to Part 6 of the Act**Clause 18 – Matters in relation to Part 6 of Act**

Clause 18 revised to reflect a risk-based approach in determining matters under Part 6 of the EP Act. In considering an application under Part 6, the EPA will take a risk-based approach through considering ground level concentrations (GLCs), as set out under Schedule 2 of the Air Quality Policy. This will allow the development of an in-stack concentration tailored to the particular activity. As a result it is proposed that:

- GLCs will be the primary driver of the evaluation of environmental risks and impacts from emissions to the atmosphere.
- When determining an application, the EPA must take into account emissions criteria set out under Schedule 2 (GLCs), Schedule 3 (Odour) and Schedule 4 (Stack Emissions) of the revised draft policy.
- The Air Quality EPP will not set mandatory stack emissions criteria as part of a stand-alone provision.

Minor amendments to the draft policy through updating references to guidelines and publications.

Schedule 1 – Prohibited substances

No changes proposed.

Schedule 2 – Ground level concentrations [Clause 18(a)]

Minor revisions to be made:

- antimony or its compounds – ‘10 mg/m³’ amend to ‘10 mg/m³ as antimony’
- arsenic or its compounds – ‘10 mg/m³’ amend to ‘10 mg/m³ as arsenic’
- cadmium or its compounds – ‘3 mg/m³’ amend to ‘3 mg/m³ as cadmium’
- lead or its compounds – ‘10 mg/m³’ amend to ‘10 mg/m³ as lead’
- mercury or its compounds – ‘3 mg/m³’ amend to ‘3 mg/m³ as mercury’
- any 2 or more of the 5 pollutants listed immediately above – ‘10 mg/m³’ amend to ‘10 mg/m³ (addition of each metal or compound as the metal in each case)’
- ‘chlorine or chlorine compounds’ should be ‘chlorine or inorganic chlorine compounds’
- ‘Any activity emitting chlorine or chlorine compounds’ – amend to ‘Any activity’
- ‘Fluorine, hydrofluoric acid or fluorine compounds’ – amend to ‘Fluorine, hydrofluoric acid or inorganic fluorine compounds’
- ‘nickel carbonyl 0.5 mg/m³’ – amend to ‘0.5 mg/m³ as nickel’
- ‘nickel or its compounds (other than nickel carbonyl) 20 mg/m³’ – amend to ‘20 mg/m³ as nickel’
- oxides of nitrogen – ‘Fuel burning (other than internal combustion engines) ... etc’ amend to ‘Fuel burning (other than internal combustion engines and the manufacture of nitric acid, sulphuric acid, glass or cement)’

Schedule 3 – Odour levels [Clause 18(b)]

No changes proposed.

Schedule 4 – Stack emissions [Clause 5(1)(a)]

Addition of chlorinated dioxins and furans to pollutants under this schedule for production of energy from waste activity (ie for regulation of emissions from municipal solid waste combustion).

Revision to criteria for NO_x – needs to reflect criteria set out in current Air Quality Policy ie ‘except a process for the manufacture of nitric acid, sulphuric acid, glass or cement’.

Schedule 5 – Revocation of environment protection policies

Delete reference to revocation of the environment protection policy constituted of the Ambient Air Quality NEPM.

Part 2 – Transitional provisions

Provisions include that the policy will not apply for two years in relation to existing prescribed activities of environmental significance.

Appendix 1 List of submissions

Private citizens

- Mr Michael Greenwood
- Mr Warren Godson
- Mr John Hartley
- Mr Peter Hartley
- Mr Scott Hoyle
- Mr Chris Hunter
- Ms Deanna Jones
- Mr Mark Lanham
- Mr Adam Meyer
- Mr Peter Morgan
- Mr Michael Pierce
- Mr Bruce Stopp
- Ms Naomi Struve
- Mr Brian White

Non-government organisations

- Australian Forest Products Association
- Australian Home Heating Association
- Business SA
- Cement Concrete and Aggregates Australia
- Cement Industry Federation
- Conservation Council South Australia
- Doctors for the Environment Australia
- Environmental Defenders Office
- Firewood Association of Australia Inc
- Grain Producers South Australia
- Port Adelaide Residents Environment Protection Group
- Primary Producers SA
- South Australian Chamber of Mines and Energy

Councils

- Adelaide Hills Council
- Barossa Council
- City of Burnside
- City of Onkaparinga
- City of West Torrens
- District Council of Grant

- Mitcham City Council
- Yorke Peninsula Council

Government agencies

- Department of the Environment, Water and Natural Resources – Fire Knowledge and Engagement
- Department of the Environment, Water and Natural Resources – Fire Management
- Department of Health and Ageing
- Department of State Development – Mining Regulation
- Natural Resources – Adelaide and Mount Lofty Ranges
- Primary Industries and Resources South Australia – Forestry

Business and Industry

- Adelaide Brighton Cement
- Arrium Mining and Materials
- BHP Billiton
- Carter Holt Harvey Woodproducts Australia Pty Ltd
- Cullen Transport and Firewood
- Gelletly Red Gum Firewood
- Hills Heat Meadows South Australian
- Iron Road
- Nystar
- O-I Adelaide
- One Forty One Plantations Pty Ltd
- Oz Minerals
- SA Pine
- SE Pine
- Timberlink Australia
- Tinpack Trading
- Tonkin Consulting
- Whiteheads Timber Sales

List of submissions (includes written and verbal submissions) from additional targeted consultation

- Adelaide Hills Council
- Arrium/One Steel
- Barossa Council
- BHP Billiton
- Burnside Council
- Ceduna Council
- Cement Industry Federation and Cement Concrete and Aggregates Australia

- Conservation Council SA
- Copper Coast District Council
- Country Fire Service
- Country Fire Service Regional Volunteer Management Committee
- Cleve Council
- Department of State Development
- Environmental Defenders' Office
- Grant District Council
- Horticultural Coalition of South Australia
- Iron Road
- Local Government Association
- Mitcham Council
- Mount Barker Council
- Mount Gambier Council
- Onkaparinga Council
- Primary Producers SA
- Oz Minerals
- SA Chamber of Mines and Energy
- SE Pine
- Tumby Bay Council
- Tumby Bay District Bushfire Working Group
- Victor Harbour Council
- Wine and Grape Council of South Australia
- Yorke Peninsula Council