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SPECIAL

Environment Protection Act 1970

STATE ENVIRONMENT PROTECTION POLICY (AIR QUALITY MANAGEMENT)

The Governor in Council, under sections 16(1) and 16(2) of the **Environment Protection Act 1970**, and on the recommendation of the Environment Protection Authority, declares the following State environment protection policy (Air Quality Management) to be observed throughout Victoria.

Victorians place a high value on clean air because air pollution may impact on their health and well being. They want the cleanest air possible that is consistent with the State's economic and social goals. This policy builds on past air quality achievements, establishes a framework for managing emissions and sets out a program for action to protect the air environment and achieve the regional air quality objectives of the State environment protection policy (Ambient Air Quality). It contains the principles, approaches and measures for managing air quality at local, regional and State levels and for addressing global environmental issues. It requires government agencies to apply the policy when making decisions, formulating strategies and implementing programs. It enables and supports action to reduce emissions from industry, commerce, households, transport and other sources. It defines the responsibilities of all Victorians, and seeks environmental improvement through regulatory measures, economic incentives and co-operative arrangements. It pursues the knowledge and understanding required to continuously improve air quality and respond to emerging issues and evolving community aspirations with regard to air quality in the State of Victoria.

1. Title

This Order may be cited as the State environment protection policy (Air Quality Management) and is referred to below as the policy.

2. Commencement

The policy will come into operation upon publication in the Government Gazette.

3. Revocation of Redundant State Environment Protection Policy

The State environment protection policy (Air Quality Management) as published in the Government Gazette dated 13 July 1981, as amended by Orders in Council published in the Government Gazette dated 4 November 1981, 17 February 1982, 16 June 1982, 24 November 1982, 28 September 1983 and Special Government Gazette dated 6 June 1988, 31 July 1989 and 9 February 1999 is revoked.

4. Application of the Policy

(1) The policy applies to the outdoor air environment of Victoria, and does not apply to the air within buildings or other structures.

(2) The policy also applies to emissions within Victoria of greenhouse gases and ozone-depleting substances.

5. Contents of the Policy

The policy is divided into Parts as follows:

PART I – POLICY FRAMEWORK

6. Policy Aims

The aims of the policy are to:

(a) ensure that the environmental quality objectives of the State environment protection policy (Ambient Air Quality) are met;

(b) drive continuous improvement in air quality and achieve the cleanest air possible having regard to the social and economic development of Victoria; and

(c) support Victorian and national measures to address the enhanced greenhouse effect and depletion of the ozone layer.

7. Policy Principles

The policy is guided by the following principles of environment protection:

(1) ***Integration of Economic, Social and Environmental Considerations***

(a) Sound environmental practices and procedures should be adopted as a basis for ecologically sustainable development for the benefit of all human beings and the environment.

(b) This requires the effective integration of economic, social and environmental considerations in decision making processes with the need to improve community well-being and the benefit of future generations.

(c) The measures adopted should be cost-effective and in proportion to the significance of the environmental problems being addressed.

(2) ***Precautionary Principle***

(a) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

(b) Decision making should be guided by –

(i) a careful evaluation to avoid serious or irreversible damage to the environment wherever practicable; and

(ii) an assessment of the risk-weighted consequences of various options.

(3) ***Intergenerational Equity***

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

(4) ***Conservation of Biological Diversity and Ecological Integrity***

The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making.

(5) ***Improved Valuation, Pricing and Incentive Mechanisms***

(a) Environmental factors should be included in the valuation of assets and services.

(b) Persons who generate pollution and waste should bear the cost of containment, avoidance or abatement.

(c) Users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including costs relating to the use of natural resources and the ultimate disposal of any wastes.

(d) Established environmental goals should be pursued in the most cost-effective way by establishing incentive structures, including market mechanisms, which enable persons best placed to maximise benefits or minimise costs to develop solutions and responses to environmental problems.

(6) ***Shared Responsibility***

(a) Protection of the environment is a responsibility shared by all levels of Government and industry, business, communities and the people of Victoria.

(b) Producers of goods and services should produce competitively priced goods and services that satisfy human needs and improve quality of life, while progressively reducing ecological degradation and resource intensity throughout the full life cycle to a level consistent with the sustainability of biodiversity and ecological systems.

(7) ***Product Stewardship***

Producers and users of goods and services have a shared responsibility with Government to manage the environmental impacts throughout the life cycle of the goods and services, including the ultimate disposal of any wastes.

(8) ***Wastes Hierarchy***

Wastes should be managed in accordance with the following order of preference:

(a) avoidance;

(b) re-use;

(c) re-cycling;

(d) recovery of energy;

(e) treatment;

(f) containment;

(g) disposal.

(9) ***Integrated Environmental Management***

If approaches to managing impacts on one segment of the environment have potential impacts on another segment, the best practicable environmental outcome should be pursued.

(10) ***Enforcement***

Enforcement of environmental requirements should be undertaken for the purposes of:

(a) better protecting the environment and its economic and social uses;

(b) ensuring that no commercial advantage is obtained by any person who fails to comply with environmental requirements; and

(c) influencing the attitude and behaviour of persons whose actions may have adverse environmental impacts or who develop, invest in, purchase or use goods and services which may have adverse environmental impacts.

(11) ***Accountability***

(a) The aspirations of the people of Victoria for environmental quality should drive environmental improvement.

(b) Members of the public should therefore be given:

(i) access to reliable and relevant information in appropriate forms to facilitate a good understanding of environmental issues; and

(ii) opportunities to participate in policy and program development.

8. Policy Intent

Emissions to the air environment will be managed so that the beneficial uses of the air environment are protected, Victoria's air quality goals and objectives are met, our air quality continues to improve and we achieve the cleanest air possible, having regard to the State's social and economic development.

Action to manage emissions to the air environment will be co-ordinated and integrated with other activity where appropriate so that neighbourhood, local and regional air quality are protected, global atmospheric issues are addressed and the protection of other segments of the environment is not compromised.

Class 3 indicators will be managed at source to achieve the best practicable outcome irrespective of the ambient levels due to the extremely hazardous nature of these pollutants.

Proposals for new or substantially modified industrial sources of emissions will be designed to minimise their operational impact. Cumulative impacts in Air Quality Control Regions will be a major consideration in assessing potential operational impacts.

Motor vehicle emissions will be managed through the adoption of national emission control and fuel quality requirements, improving the in-service performance of motor vehicles, managing the overall level of motor vehicle use, facilitating the introduction of low-emission technologies and fuels, and encouraging less-polluting means of meeting transport needs.

Air quality management will address all sources, including domestic.

Decisions by people, governments and organisations that affect, or are affected by, air quality will be informed by providing access to scientific information, models, research and other knowledge in a manner that meets the needs of stakeholders.

9. Beneficial Uses

(1) The following beneficial uses are protected throughout the State of Victoria –

(a) life, health and well-being of humans;

(b) life, health and well-being of other forms of life, including the protection of ecosystems and biodiversity;

(c) local amenity and aesthetic enjoyment;

(d) visibility;

(e) the useful life and aesthetic appearance of buildings, structures, property and materials; and

(f) climate systems that are consistent with human development, the life, health and well-being of humans, and the protection of ecosystems and biodiversity.

(2) The policy also contributes to the protection of the beneficial uses of segments of the environment identified in other State environment protection policies which may be adversely affected by emissions to the air environment.

PART II – ENVIRONMENTAL INDICATORS AND ENVIRONMENTAL QUALITY OBJECTIVES

10. Air Quality Indicators

(1) The following air quality indicators are defined for the purposes of the policy:

(a) *Class 1 indicators:* common or widely distributed air pollutants which are established as environmental indicators in the State environment protection policy (Ambient Air Quality) and may threaten the beneficial uses of both local and regional air environments;

(b) *Class 2 indicators:* hazardous substances that may threaten the beneficial uses of the air environment by virtue of their toxicity, bio-accumulation or odorous characteristics;

(c) *Class 3 indicators*: extremely hazardous substances that are carcinogenic, mutagenic, teratogenic, highly toxic or highly persistent, and which may threaten the beneficial uses of the air environment; and

(d) *Unclassified indicators:* indicators of the beneficial uses of local amenity and aesthetic enjoyment, namely odour and total suspended particles (nuisance dust).

(2) Air pollutants classified as class 1, 2 or 3 indicator are listed in Schedule A.

(3) Design criteria for class 1, 2 or 3 indicators for the purpose of assessing proposals for new emission sources or modifications to existing emission sources are established in Schedule A.

(4) Design criteria for odour and total suspended particles (nuisance dust) are established in Schedule A.

(5) Intervention levels for class 1, 2 or 3 indicators are established in Schedule B.

11. Ambient Air Quality Objectives

The environmental quality objectives for the purpose of this policy are set out in State environment protection policy (Ambient Air Quality).

PART III – ATTAINMENT PROGRAM

POLICY RESPONSIBILITIES

12. Development of National Measures

(1) The Authority will work with Commonwealth, State and Territory Government agencies and municipalities to develop national environment protection measures, policies and strategies for environmental management.

(2) The Authority will consult with Victorian stakeholders in the development of these measures, policies and strategies and, when they have been agreed by governments, consult stakeholders about its intentions and plans to implement them in Victoria.

13. Implementation

(1) When making decisions and formulating strategies, plans and programs that may affect air quality in Victoria, the Authority, other protection agencies and the public health authority, will apply:

(a) the principles and pursue the aims and intent of the policy; and

(b) any national measures, policies or strategies adopted by Victoria that are relevant to air quality management.

(2) The Authority will employ statutory and non-statutory instruments and measures in implementing the policy, including:

(a) licences, works approvals and notices issued under the Act;

(b) regulations and orders made under the Act, including requirements for managing mobile and other diffuse sources of emissions;

(c) enforcement programs, including the investigation of complaints;

(d) protocols and guidelines for environmental management;

(e) risk assessment principles, practices and protocols;

(f) environmental planning measures, including protocols for separation distances and land use planning;

(g) emergency abatement plans;

(h) economic instruments, such as incentives and market mechanisms;

(i) partnerships and other cooperative arrangements involving industry, local government or the community;

(j) consultation with communities and other stakeholders;

(k) public information and education programs;

(l) environmental auditing; and

(m) programs of other organisations that may assist in meeting the aims and intent of the policy.

14. Accountability

(1) The Authority will maintain open communications and a constructive dialogue with the Victorian community, including industry, on air quality matters and make its decisions and actions as open and transparent as practicable.

(2) The Authority will inform and involve the community, including industry, on air quality issues and ensure that its policies and programs reflect the aspirations of the Victorian community, by:

(a) acquiring, analysing and reporting information on air quality, and promoting increased public awareness and understanding of air quality issues;

(b) working closely with the community to understand their concerns and expectations, and their priorities for air quality improvement;

(c) consulting the community and responding to their comments and submissions on proposed policies, plans and programs;

(d) making publicly available, applications for statutory licences and approvals;

(e) producing timely forecasts and bulletins on air quality for public information;

(f) advising the community on actions they can take to improve air quality;

(g) investigating complaints about air pollution;

(h) providing the widest practicable access to information about air quality through its reports and publications, the electronic media, the Internet, and other instruments;

(i) ensuring that all air quality measurements made for statutory purposes meet NATA requirements; and

(j) ensuring that all data collected at public expense are publicly available.

ENVIRONMENTAL MANAGEMENT INSTRUMENTS

15. Protocols for Environmental Management

(1) The Authority will develop protocols for environmental management as incorporated documents to this policy.

(2) The Authority will develop and review protocols for environmental management in consultation with key stakeholders including protection agencies, the public health authority, industry, and the community.

(3) Generators of emissions must manage their emissions in accordance with any relevant protocol for environmental management developed in accordance with this policy.

(4) Protocols for environmental management may be developed for managing the emissions from industrial, commercial, domestic or mobile sources and impacts on air quality, the production and use of goods and services, the management of wastes that may generate emissions and any other requirements necessary for effective air quality management.

(5) The Authority will develop and maintain a public register of all current protocols for environmental management.

16. Risk Assessment

(1) The Authority will develop a protocol for environmental management in accordance with this policy on the use of risk assessment in air quality management.

(2) Risk assessment practices may be used in the:

(a) development of air quality objectives and design criteria;

(b) establishment of air quality management priorities;

(c) assessment of the environmental and health impacts of air pollution; and

(d) identification of the emissions or sources of greatest risk to beneficial uses of the air environment.

(3) A generator of emissions may undertake a risk assessment to gain a better understanding of the impact of emissions from its activity on the beneficial uses of the environment.

(4) The Authority may require a generator of emissions to undertake a risk assessment if it believes a risk assessment will contribute to a better understanding of the impact of the activities of a generator of emissions on the beneficial uses of the environment.

(5) The Authority may use the findings of a risk assessment in making statutory decisions or determining whether a generator of emissions complies with the policy.

17. Separation Distances

(1) The Authority will develop a protocol for environmental management in accordance with this policy on the provision of separation distances between sources of emissions to the air environment and land uses that are sensitive to the potential impacts of those emissions on local amenity.

(2) The protocol for environmental management developed for the purposes of sub-clause (1) will assist the Authority, responsible authorities and planning authorities in assessing the suitability of development proposals that may have impacts on local amenity or on the viability of existing industries.

(3) The protocol developed under sub-clause (1) sets out the separation distances under this policy except where a protocol for environmental management developed in accordance with this policy, and in conjunction with relevant government agencies, for a particular industry or activity makes provision for separation distances for that industry or activity.

MANAGEMENT OF EMISSIONS

18. General Requirements

(1) In this policy the management of emissions means:

(a) avoiding and minimising emissions in accordance with the preference established in the principle of the wastes hierarchy; and

(b) the assessment, monitoring, control, reduction or prohibition of emissions for air quality management purposes.

(2) In this policy, where the context allows, generators of emissions include:

(a) those who operate or manage sources of emissions, or undertake activities that generate emissions or result in the generation of emissions;

(b) those who design, develop, produce, invest in, market or sell goods and services that generate emissions at some stage of their life cycle; and

(c) those who purchase or use those goods and services, or manage the wastes associated with them.

(3) Generators of emissions must:

(a) manage their activities and emissions in accordance with the aims, principles and intent of the policy;

(b) pursue continuous improvement in their environmental management practices and environmental performance; and

(c) apply best practice to the management of their emissions or, if they emit Class 3 indicators, reduce those emissions to the maximum extent achievable;

19. Management of New Sources of Emissions

(1) A generator of a new or substantially modified source of emissions must apply best practice to the management of those emissions.

(2) Notwithstanding the general requirement under sub-clause (1), a generator of a new or substantially modified source of emissions of Class 3 indicators must reduce those emissions to the maximum extent achievable.

20. Management of Class 3 Indicators

(1) Generators of emissions of Class 3 indicators must reduce those emissions to the maximum extent achievable.

(2) Within twenty-four months of the classification of a Class 3 indicator which has not been previously classified as such, a licensee that is emitting such an indicator must:

(a) develop an environment improvement plan; or

(b) revise an existing environment improvement plan;

to demonstrate that the licensee will comply with sub-clause (1).

(3) A plan under sub-clause (2) must contain:

(a) measures outlining how the licensee intends to reduce emissions of that Class 3 indicator to the maximum extent achievable; and

(b) time frames by which measures will be implemented.

(4) The Authority may prohibit the emission of a Class 3 indicator if it is considered to constitute a significant threat to public health, either in the ambient air environment or in the vicinity of a particular source.

21. Monitoring of Emissions

(1) The Authority may require a generator of emissions to measure and report on its emissions to enable the Authority to determine whether the emissions are being managed in accordance with the policy and any other applicable statutory requirements.

(2) The Authority may require a generator of emissions to measure and report the levels of its emissions in the local air environment so as to:

(a) assess the potential impacts of those emissions; and

(b) determine whether improvements in local air quality are required.

(3) Any report required by the Authority under sub-clauses (1) or (2) will be a public document.

22. Management of Emissions from Stationary Sources

(1) The Authority may, in considering licences and works approvals, exempt a scheduled premises from compliance with any requirement of Schedules D and E and the Protocol for Environmental Management (Minimum Control Requirements for Stationary Sources) where the proponent of the works or licensee can demonstrate to the satisfaction of the Authority that:

(a) the discharge or emission does not cause design criteria prescribed in Schedule A to be exceeded and does not adversely affect any beneficial use of the environment; and

(b) compliance with the requirement would increase or create waste disposal problems in either the land, air or water environments; or

(c) compliance with the requirement would preclude the development of innovative control or energy saving technologies; or

(d) compliance with a requirement contained in Schedules D and E cannot be achieved by the application of best practice for emissions of Class 1 and 2 indicators or reduction to the maximum extent achievable for emissions of Class 3 indicators.

(2) In making a decision under sub-clause (1), the Authority may take into account the results of a risk assessment relating to the works or licence which has been undertaken in accordance with this policy.

(3) In order to demonstrate compliance with the requirements of this policy, an existing licensed wood pulp mill that employs the Kraft process must:

(a) comply with all relevant requirements contained in any protocol for environmental management that refers specifically to the Kraft process; and

(b) only operate in accordance with an environment improvement plan approved by the Authority.

23. Commissioning, Startup and Shutdown of Equipment

The emission limits in Schedules D and E may be exceeded during commissioning, startup or shutdown provided that the Authority has specified conditions under which excess emissions from such events are permitted.

GENERAL MANAGEMENT OF AIR QUALITY

24. Monitoring of Air Quality

(1) The Authority will undertake ambient air quality monitoring in accordance with the State environment protection policy (Ambient Air Quality) to determine whether the environmental quality objectives of that policy are being met.

(2) The Authority will undertake additional air quality monitoring and investigations to enhance its understanding of the nature, causes and mechanisms of air pollution, and the feasibility and potential effectiveness of air quality management options.

25. Air Quality Research

The Authority will:

(a) encourage, co-ordinate and monitor research into air pollution and its impacts on the beneficial uses of the policy;

(b) undertake or commission its own research into air pollution and its impacts on the beneficial uses of the policy, working in partnership with others, including government agencies, universities and research organisations where necessary;

(c) undertake, in conjunction with others where appropriate, research into the health impacts of air pollutants and the relationships between concentrations of air pollutants in the air environment and human morbidity and mortality; and

(d) review the science and technology of air quality measurement and modelling, and develop, implement and promote new approaches to understanding the science of air pollutants wherever appropriate.

26. Emergency Abatement Plan

(1) The Authority will develop an emergency abatement plan in consultation with relevant protection agencies, the public health authority, industry and the community.

(2) The Authority will issue an air pollution alert and implement an emergency abatement plan if the concentration of an air quality indicator is predicted to exceed a relevant alert level specified in Schedule G.

MANAGEMENT OF LOCAL AIR QUALITY

27. Local Air Quality Management

(1) In assessing an application for a new development that may have impacts on local air quality, the Authority, the relevant protection agency and the public health authority, will have regard to protocols for environmental management developed in accordance with this policy, including those for:

(a) best practice for environmental management;

(b) recommended separation distances between emissions sources and sensitive land uses; and

(c) the use of design criteria and dispersion modelling for assessing emissions.

(2) A planning authority must give consideration to any protocol for environmental management relating to separation distances in assessing the suitability of proposed development locations and the potential impacts of development on local amenity.

(3) Provision of a separation distance for a development will not be permitted as an alternative to meeting the emissions management requirements of clauses 18, 19 and 20.

(4) The Authority will work with municipalities, industry, communities and other stakeholders to protect local amenity from offensive odours, dust or other emissions from local sources.

(5) The Authority will encourage protection agencies to develop voluntary neighbourhood environment improvement plans to protect the beneficial uses of the neighbourhood air environment.

(6) The Authority may direct a protection agency to develop a neighbourhood environment improvement plan to protect the beneficial uses of the neighbourhood air environment.

28. Modelling of Emissions

(1) In addition to managing emissions in accordance with clauses 18, 19 and 20, the Authority may require a generator of emissions to:

(a) model the transport and dispersion in the air environment of emissions; and

(b) for new sources of emissions, demonstrate that the model predictions meet the relevant design criteria; or

(c) in the case of odorous emissions for which design criteria are not established, demonstrate that local amenity will not be adversely affected by offensive odours.

(2) Any modelling done under sub-clause (1) must be done in accordance with Schedule C or any relevant protocol for environmental management made under this policy for a particular industry or activity.

MANAGEMENT OF AIR QUALITY IN CONTROL REGIONS

29. Establishment of Air Quality Control Regions

(1) For the purposes of the policy, the following air quality control regions are defined:

(a) Port Phillip Air Quality Control Region; and

(b) Latrobe Valley Air Quality Control Region.

(2) The boundaries of the air quality control regions in sub-section (1) are prescribed in Schedule F.

(3) Where it is desirable to maintain a very high level of air quality in particular areas the Authority shall establish Areas of Special Significance and publish its decision in the Government Gazette.

30. Air Quality Management in Air Quality Control Regions

(1) For the purpose of improving or maintaining regional air quality within an Air Quality Control Region, the Authority may :

(a) require emission generators to reduce their emissions to a greater extent than required by clauses 18 and 19; and

(b) refuse to issue a works approval for a large new source of emissions unless emission reductions for other sources are able to offset the impacts of the proposed emissions.

(2) The Authority may identify priorities and strategies for reducing emissions from particular sources for the purpose of air quality management in a region through the development of an Air Quality Improvement Plan or a protocol for environmental management developed in accordance with this policy.

(3) The Authority will develop a protocol for environmental management in accordance with this policy for emissions offsets and emissions trading programs to address situations where concentrations of an air quality indicator exceed or are projected to exceed the relevant environmental quality objectives prescribed under policy.

(4) In considering any proposal for emissions offsets and emissions trading submitted by a generator of emissions in accordance with a protocol for environmental management developed under sub-clause (3) the Authority must be satisfied that:

(a) the generator of emissions complies with this policy; and

(b) the proposal achieves the best overall environmental outcome.

(5) The Authority may establish and implement strategies for reducing and managing emissions, including offsets and trading programs, for both the emissions of an environmental indicator, and the emissions of an air pollutant which is a precursor to the formation of an environmental indicator.

31. Air Quality Improvement Plans for Air Quality Control Regions

(1) The Authority may develop Air Quality Improvement Plans for Air Quality Control Regions, sub-regions or regions of special significance.

(2) The purposes of an Air Quality Improvement Plan are to:

(a) protect the beneficial uses and identify actions that will enable the environmental quality objectives to be met;

(b) guide, support and promote continuous improvement in air quality to minimise the exposure of the community to air pollution; and

(c) reduce the impacts of air pollutants on other segments of the environment.

(3) The Authority will implement an Air Quality Improvement Plan through the:

(a) environmental management instruments or measures described in the policy; and

(b) co-operation and assistance of protection agencies, the public health authority, other levels of government, industry and the community.

32. Air Quality Forecasting and Reporting

(1) The Authority will:

(a) establish and operate a forecasting system for air quality; and

(b) issue regular bulletins containing forecasts of air quality and advice to the community on ways to minimise emissions when poor air quality is predicted.

(2) The Authority will regularly publish information and issue reports to keep the community informed about air quality and its implications, and progress towards achieving the aims of this policy and the environmental quality objectives of the State environment protection policy (Ambient Air Quality).

MANAGEMENT OF GLOBAL ISSUES

33. Management of Greenhouse Gases

(1) Generators of emissions of greenhouse gases must manage their emissions in accordance with the provisions of Clauses 18 and 19.

(2) Any protocols for environmental management relating to greenhouse gas emissions developed by the Authority in accordance with this policy will be consistent with any measures developed by the Government of Victoria for the management of greenhouse gases and energy efficiency.

(3) The Authority will apply these protocols to generators of emissions subject to works approvals and licences, and in assessing the potential impacts of other development proposals.

34. Management of Ozone-Depleting Substances

(1) The Authority will:

(a) contribute to the development of national environmental protection measures, policies and strategies for avoiding and minimising emissions of ozone-depleting substances to the atmosphere and for phasing out these substances to enable Australia to meet its commitments under the Montreal Protocol on Substances that Deplete the Ozone Layer 1987; and

(b) use these national environment protection measures, policies and strategies as a basis for developing its management approach and programs.

(2) Any person who supplies, distributes, stores, sells, purchases, uses or otherwise handles any ozone-depleting substance must comply with all requirements relating to ozone-depleting substances under the Act, including subordinate instruments.

MANAGEMENT OF DIFFUSE SOURCES OF EMISSIONS

35. Management of Motor Vehicles and Fuels

(1) The manufacturers of new motor vehicles must comply with emission standards and other relevant design requirements made by relevant national bodies, including the National Environment Protection Council and National Road Transport Commission.

(2) Producers and marketers of fuel used in motor vehicles must comply with:

(a) the conditions of any agreement entered into by those producers and marketers with the Authority; and

(b) any statutory requirements including the Act; Commonwealth legislation; and National Environment Protection Measures,

relating to the composition and quality of those fuels.

(3) The Authority will assess the air quality impacts and energy efficiency of motor vehicles throughout their life cycle, including emissions performance in service, and may establish strategies and programs to improve the environmental performance or energy efficiency of motor vehicles.

(4) To minimise emissions from motor vehicles by improving their in-service performance the Authority will:

(a) develop a training course for low-emission motor vehicle maintenance in conjunction with the motor vehicle maintenance and repair industry;

(b) develop a training course for low-emission driving in conjunction with the driver training industry;

(c) develop information campaigns on the importance of vehicle maintenance in accordance with manufacturers' specifications to reducing the impact of motor vehicle emissions on air quality;

(d) develop and implement motor vehicle emissions monitoring and enforcement programs, including the assessment of new technologies for detecting emissions from motor vehicles;

(e) investigate the viability of options for inspection and maintenance of motor vehicles;

(5) To minimise emissions from motor vehicles by managing their overall level of use, the Authority will:

(a) work with Government of Victoria agencies and other stakeholders to develop transport, land use and infrastructure strategies, economic instruments and other measures to manage travel demand and influence driver behaviour;

(b) work with relevant Government of Victoria agencies to assess the viability of ride share and car share schemes;

(c) promote the use of alternatives to the motor vehicle such as public transport, cycling and walking, and alternatives to travel such as telecommuting, where appropriate;

(6) To minimise emissions from motor vehicles by facilitating the introduction of low emission technology and fuels, the Authority will:

(a) promote the introduction or wider application of alternative fuels and technologies that have overall environmental and energy efficiency benefits;

(b) promote the introduction of low-emission technology vehicles; and

(c) cooperate with the National Environment Protection Council and National Road Transport Commission in the assessment of alternative fuels and technologies.

36. Management of Other Mobile Sources

The Authority will monitor and where appropriate support national and international measures to minimise emissions from mobile sources other than motor vehicles, including aircraft, ships and locomotives.

37. Management of Prescribed Burning

(1) The Authority will develop protocols for environmental management in accordance with this policy for managing the potential impacts of prescribed burning in partnership with relevant Government of Victoria agencies, protection agencies, fire authorities and other stakeholders.

(2) The Authority will work with relevant Government of Victoria agencies, protection agencies, fire authorities and other stakeholders to:

(a) develop measures to minimise to the extent practicable without compromising the protection of human life and property and the health of native ecosystems, the impacts of prescribed burning; and

(b) develop and promote practicable alternatives which can achieve equivalent benefits to the use of prescribed burning.

38. Management of Waste Burning

(1) The burning of waste in the open must be undertaken in accordance with council local laws.

(2) Councils must have regard to the policy in developing laws under sub-clause (1) and in the setting of conditions under those laws.

(3) The burning of industrial waste in the open is not permitted without written approval from the Authority.

39. Management of Solid Fuel Heaters

(1) Solid fuel heaters manufactured in Victoria must comply with standards specified by the Authority or made under the Act.

(2) The Authority will investigate measures, including the introduction of subordinate legislation and incentives, to discourage reliance on non-compliant solid fuel heaters and open fireplaces.

(3) The Authority will encourage the replacement of non-compliant solid fuel heaters with heaters that:

(a) comply with relevant standards; and

(b) are energy efficient.

(4) The Authority will conduct information campaigns on the:

(a) correct installation and operation of solid fuel heaters;

(b) selection and storage of fuel for use in solid fuel heaters; and

(c) potential impacts on air quality of solid fuel heaters and ways in which those impacts may be avoided.

40. Management of Large Line and Area-Based Sources of Emissions

(1) The Authority will develop protocols for environmental management in accordance with this policy for assessing and managing the impacts of large line and area-based sources of air quality indicators in partnership with relevant Government of Victoria agencies, local government and other stakeholders.

(2) Any protocols developed for the purposes of sub-clause (1) will take into account the activities of a transitory nature in certain industries in developing best practicable approaches to controlling emissions. These industries include, but are not limited to:

(a) mining;

(b) quarrying; and

(c) road construction and operation.

(3) A protocol developed under sub-clause (1) sets the conditions that apply under this policy to an industry or activity for which that protocol is developed.

(4) The Authority will investigate and develop techniques for improved assessment of the environmental impacts of road proposal options.

PART IV – DEFINITIONS

Unless inconsistent with the context or subject matter, the following definitions apply to the policy:

'Act' means the **Environment Protection Act 1970** as amended;

'Air Quality Control Region' means a segment of the air environment which, because of its population size or density, industrialisation, projected development, or meteorological characteristics, has been gazetted as requiring the regional effects of emissions of wastes to the air environment to be considered in formulating control requirements;

'alert level' means the concentration of an indicator, or other criteria, at or above which most members of the exposed population are likely to be adversely affected;

'ambient air' means the external air environment, it does not include the air environment inside buildings or structures;

'Authority' means the Authority as defined in the Act;

'beneficial use' means beneficial use as defined in the Act;

'best practice' means the best combination of eco-efficient techniques, methods, processes or technology used in an industry sector or activity that demonstrably minimises the environmental impact of a generator of emissions in that industry sector or activity;

'Class 1 indicator' means a substance which is common or widely distributed and is established as an environmental indicator in the State Environment Protection Policy (Ambient Air Quality), and may threaten the beneficial uses of both local and regional air environments;

'Class 2 indicator' means a waste which is a hazardous substance that may threaten the beneficial uses of the air environment by virtue of its toxicity, bio-accumulation or odorous characteristics;

'Class 3 indicator' means a waste which is an extremely hazardous substance that may threaten the beneficial uses of the air environment due to its carcinogenic, mutagenic, teratogenic, highly toxic or highly persistent characteristics;

'diffuse source' means a source which generates emissions from a large number of small emission points.

'eco-efficient' means producing more goods with less energy and fewer natural resources, resulting in less waste and pollution;

'indicator' means a substance which is used as a measure of air quality;

'intervention criteria' means intervention criteria as defined in the Act;

'intervention level' means a numerical value for an indicator which if exceeded may trigger development of a neighbourhood environment improvement plan.

'licence' means a licence as defined in the Act.

'maximum extent achievable' means a degree of reduction in the emission of wastes from a particular source that uses the most effective, practicable means to minimise the risk to human health from those emissions and is at least equivalent to or greater than that which can be achieved through the application of best practice;

'mobile source' means a source of wastes emitted to air; the source being in motion during its normal operating mode;

'neighbourhood environment improvement plan' means a neighbourhood environment improvement plan as defined in the **Environment Protection Act 1970**.

'new source' means a stationary source of wastes for which development works are yet to commence. An existing source may be classified as a new source if it is to be relocated, or if modifications to its equipment or processes are likely to lead to an increase in the quantity of or an alteration in the nature of wastes emitted;

'ozone-depleting substance' means an ozone-depleting substance as defined in the Act;

'planning authority' means any person or body that is given power under section 8 of the **Planning and Environment Act 1987** to prepare a planning scheme or an amendment to a planning scheme.

'prescribed burning' means the controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity and rate of spread required to attain planned resource management objectives and includes fuel reduction, ecological, agricultural and silvicultural burning;

'protection agency' means a protection agency as defined in the Act;

'responsible authority' means the person who is responsible for the administration or enforcement of a planning scheme or a provision of a planning scheme as set out in section 13 of the **Planning and Environment Act 1987**.

'segment' means a segment as defined in the Act;

'source' means a point or an area from which wastes are emitted to the air environment;

'stationary source' means a source of emissions of wastes to air from commercial or industrial premises that is stationary during its normal operating mode;

'waste' means a waste as defined in the Act;

'works approval' means a works approval as defined in the Act.

SCHEDULE A

CLASS 1, 2, 3 AND UNCLASSIFIED INDICATORS AND DESIGN CRITERIA

This schedule prescribes the Class 1, 2 and 3 indicators and their design criteria referred to in Clause 10 of this Policy. These criteria are to be used in the assessment of the design of new or expanded sources of emissions such as industrial premises. They are to be used in conjunction with the modelling procedures outlined in Schedule C of this Policy.

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Class 1				
Carbon monoxide	Toxicity	1-hour	29	25
Nitrogen dioxide	Toxicity	1-hour	0.19	0.1
Sulfur dioxide	Toxicity	1-hour	0.45	0.17
[1]Particles as PM_{10}	Toxicity	1-hour	0.080	–
Lead	Toxicity	1-hour	0.003	–
Class 2 (toxicity-based)				
Acetone	Toxicity	3-minute	40	16.7
Acrylic acid	Toxicity	3-minute	0.2	0.067
Ammonia	Toxicity	3-minute	0.6	0.83
Aniline	Toxicity	3-minute	0.25	0.067
Antimony and compounds	Toxicity	3-minute	0.017–	
Asphalt (petroleum) fumes	Toxicity	3-minute	0.17	–
Barium (soluble compound)	Toxicity	3-minute	0.017	–
Biphenyl	Toxicity	3-minute	0.043	0.0067
Bromochloromethane	Toxicity	3-minute	35	6.7
Bromoform (tribromomethane)	Toxicity	3-minute	0.17	0.017
Bromotrifluoromethane	Toxicity	3-minute	203	33
Carbon black	Toxicity	3-minute	0.1	–

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Carbon tetrachloride (tetrachloromethane)	Toxicity	3-minute	0.021	0.0033
Chlorine	Toxicity	3-minute	0.1	0.033
Chlorine dioxide	Toxicity	3-minute	0.0093	0.0033
Chloroform (Trichloromethane)	Toxicity	3-minute	1.6	0.33
Chloromethane (methyl chloride)	Toxicity	3-minute	3.4	1.7
Chromium (III) compounds	Toxicity	3-minute	0.017	–
Copper fume	Toxicity	3-minute	0.0067	–
Copper dusts and mists	Toxicity	3-minute	0.033	–
Cotton dust (raw)	Toxicity	3-minute	0.0067	–
Crotonaldehyde	Toxicity	3-minute	0.2	0.067
Cynanide (as CN)	Toxicity	3-minute	0.17	–
Cyclohexane	Toxicity	3-minute	35	10
Cyclohexanol	Toxicity	3-minute	6.9	1.7
o-Dichlorobenzene	Toxicity	3-minute	10	1.7
1,2-Dichloroethylene	Toxicity	3-minute	26.3	6.7
Dichlorvos	Toxicity	3-minute	0.033	0.0033
Dinitrobenzene (all isomers)	Toxicity	3-minute	0.033	0.005
Dinitrotoluene	Toxicity	3-minute	0.05	–
Ethanolamine	Toxicity	3-minute	0.25	0.1
Ethylbenzene	Toxicity	3-minute	14.5	3.3

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Ethyl butyl ketone	Toxicity	3-minute	7.7	1.7
Ethyl chloride (chloroethane)	Toxicity	3-minute	86.6	33.3
Ethylene glycol (vapour)	Toxicity	3-minute	2.0	–
[2] Fluoride	Bioaccumulation	24-hours 7 days 90 days	0.0029 0.0017 0.0005	0.0034 0.002 0.00059
Fluorine	Toxicity	3-minute	0.053	0.033
[3]Formaldehyde	IARC Group 2A carcinogen	3-minute	0.04	0.033
n-Hexane	Toxicity	3-minute	5.9	1.7
2-Hexanone	Toxicity	3-minute	3.3	0.83
Hydrogen chloride	Toxicity	3-minute	0.25	0.17
Iron oxide fume	Toxicity	3-minute	0.17	–
Magnesium oxide fume	Toxicity	3-minute	0.33	–
Maleic anhydride	Toxicity	3-minute	0.033	0.0083
Manganese and compounds	Toxicity	3-minute	0.033	–
Mercury				
Organic	Bioaccumulation	3-minute	0.00033	–
Inorganic	Bioaccumulation	3-minute	0.0033	–
Methyl acrylate	Toxicity	3-minute	1.2	0.33
Methyl bromide (bromomethane)	Toxicity	3-minute	0.63	0.17

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Methylene chloride (dichloromethane)	Toxicity	3-minute	5.8	1.7
Nitric acid	Toxicity	3-minute	0.17	0.067
[1]Particles as $PM_{2.5}$	Toxicity	1-hour	0.050	–
n-Pentane	Toxicity	3-minute	60	20
2-Pentanone	Toxicity	3-minute	23.3	6.7
Phthalic anhydride	Toxicity	3-minute	0.2	0.033
Propylene glycol monomethyl ether	Toxicity	3-minute	12	3.3
Silver metal	Toxicity	3-minute	0.0033	–
Silver, soluble compounds (as Ag)	Toxicity	3-minute	0.00033	–
Sulfuric acid	Toxicity	3-minute	0.033	–
1,1,1-Trichloroethane (methyl chloroform)	Toxicity	3-minute	22.7	4.2
1,1,2-Trichloroethane	Toxicity	3-minute	1.8	0.33
Trichlorofluoromethane	Toxicity	3-minute	187	33.3
Trimethylbenzene (mixed isomers)	Toxicity	3-minute	4.0	0.83
Vinyl toluene	Toxicity	3-minute	8.1	1.7
Welding fume (total particulate)	Toxicity	3-minute	0.17	–
[4]Wood dust				
Hardwoods	IARC Group 1 carcinogen	3-minute	0.0033	–
Softwoods	IARC Group 1 carcinogen	3-minute	0.017	–
Zinc chloride fume	Toxicity	3-minute	0.033	–

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]		DESIGN CRITERIA ppm [9]	
Zinc oxide fume	Toxicity	3-minute	0.17		–	
Class 2 (odour-based)			**Odour**	**Toxicity**	**Odour**	**Toxicity**
Acetaldehyde	Odour	3- minutes	0.076	5.9	0.042	3.2
Acetic acid	Odour	3-minutes	0.50	0.82	0.20	0.32
n-Butanol	Odour	3-minutes	0.9	5.1	0.3	1.7
n-Butyl acetate	Odour	3-minutes	1.85	23.8	0.39	5.0
Butyl acrylate	Odour	3-minute	0.18		0.035	
Butyl mercaptan	Odour	3-minutes	0.012	0.06	0.004	0.017
Carbon disulphide	Odour	3-minutes	0.13	1.01	0.042	0.32
Chlorobenzene	Odour	3-minute	0.20	1.5	0.042	0.32
Cumene (isopropyl benzene)	Odour	3-minutes	0.039	8.1	0.008	1.6
Cyclohexanone	Odour	3-minutes	0.48	3.2	0.12	0.82
Diacetone alcohol	Odour	3-minutes	1.3		0.28	
Diethylamine	Odour	3–minutes	0.06	0.97	0.02	0.32
Dimethylamine	Odour	3-minute	0.017	0.59	0.0094	0.32
Diphenyl ether	Odour	3-minutes	0.14		0.02	
Ethanol	Odour	3-minutes	3.8	62.7	2.0	33.3
Ethyl acetate	Odour	3-minutes	22.1	23.6	6.3	6.6
Ethyl acrylate	Odour	3-minutes	0.0008	0.66	0.0002	0.16

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m³ [8]		DESIGN CRITERIA ppm [9]	
Hydrogen sulfide	Odour	3-minutes	0.00014	0.47	0.0001	0.32
Methanol	Odour	3-minutes	5.5	8.7	4.3	6.7
Methylamine	Odour	3-minutes	0.005	0.43	0.0042	0.32
Methyl ethyl ketone	Odour	3-minutes	5.9	16	2.0	4.9
Methyl mercaptan	Odour	3-minutes	0.00084	0.032	0.00042	0.016
Methyl methacrylate	Odour	3-minutes	0.21	13.4	0.05	3.2
Methyl styrene	Odour	3-minutes	0.25	8.1	0.052	1.7
Methyl isobutyl ketone	Odour	3-minutes	0.41	6.7	0.1	1.6
Nitrobenzene	Odour	3-minutes	0.0047	0.16	0.00094	0.032
Perchloroethylene (tetrachloroethylene)	odour	3-minute	6.3	11.2	0.94	1.7
Phenol	Odour	3-minutes	0.036	0.13	0.0094	0.032
Phosphine	Odour	3-minutes	0.0056	0.014	0.0042	0.01
n–Propanol	Odour	3-minutes	0.075	16.4	0.03	6.2
Pyridine	Odour	3-minutes	0.013	0.52	0.0042	0.16
Styrene (Monomer)	Odour	3-minutes	0.21	6.97	0.05	1.64
Toluene	Odour	3-minutes	0.65	12.3	0.17	3.2
Triethylamine	Odour	3-minutes	0.36	0.39	0.09	0.1
Xylenes	Odour	3-minutes	0.35	11.4	0.08	2.7

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Class 3				
Acrolein	USEPA extremely toxic	3-minute	0.00077	0.00033
Acrylonitrile	USEPA Group B1 carcinogen	3-minute	0.014	0.0067
Alpha chlorinated toluenes and benzoyl chloride	IARC Group 2A carcinogen	3–minute	0.017	0.0033
[1]Arsenic and compounds	IARC Group 1 carcinogen	3–minute	0.00017	–
Asbestos	IARC Group 1 carcinogen	3-minute	0.33 fibres/litre	–
Benzene	IARC Group 1 carcinogen	3-minute	0.053	0.017
Beryllium and beryllium compounds	IARC Group 1 carcinogen	3-minute	0.000007	–
1,3-butadiene	IARC Group 2A carcinogen	3-minute	0.073	0.033
Cadmium and cadmium compounds	IARC Group 1 carcinogen	3-minute	0.000033	–
Chromium VI compounds	IARC Group 1 carcinogen	3-minute	0.00017	–
1,2-dichloroethane (ethylene dichloride)	Mutagen (USEPA)	3-minute	0.13	0.033
[5]Dioxins and Furans (as TCDD I-TEQs)	IARC Group 1 carcinogen	3-minute	0.0000000037	–
Epichlorohydrin	IARC Group 2A carcinogen	3-minute	0.025	0.0067

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Ethylene oxide	IARC Group 1 carcinogen	3-minute	0.006	0.0033
[6]Hydrogen cyanide	USEPA extremely toxic	3-minute	0.37	0.33
MDI (Diphenylmethane diisocyanate)	USEPA extremely toxic	3-minute	0.00007	–
Nickel and nickel compounds	IARC Group 1 carcinogen	3-minute	0.00033	0.00017
PAH (as BaP)	IARC Group 2A carcinogen	3-minute	0.00073	–
Pentachlorophenol	USEPA extremely toxic	3-minute	0.0017	–
[6]Phosgene	USEPA extremely toxic	3-minute	0.013	0.0033
Propylene oxide	USEPA Group B1 carcinogen	3-minute	0.16	0.067
[7]Radionuclides			ALARA	–
[1]Respirable crystalline silica (inhaled in the form of quartz or crystobalite) (measured as $PM_{2.5}$)	IARC Group 1 carcinogen	3-minute	0.00033	–
TDI (toluene-2,4-diisocyanate and toluene-2,6-diisocyanate)	USEPA extremely toxic	3-minute	0.00007	–
Trichloroethylene	IARC Group 2A carcinogen	3-minute	0.9	0.17
Vinyl chloride	IARC Group 1 carcinogen	3-minute	0.043	0.017

SUBSTANCE	REASON FOR CLASSIFICATION	AVERAGING TIME	DESIGN CRITERIA mg/m^3 [8]	DESIGN CRITERIA ppm [9]
Unclassified Indicators				
General odour	Amenity	3-minute	1 Odour Unit	
[1]TSP (nuisance dust)	Amenity (nuisance)	3-minute	0.33	–

[1] applies to point sources only. For area-based sources and roads, applicable criteria are specified in the relevant industry PEM.

[2] the fluoride content is calculated by dry weight and expressed as fluoride (F-) ppm

[3] the International Agency for Research into Cancer, USEPA and Worksafe Australia classify formaldehyde as a probable human carcinogen. The USEPA and Worksafe Australia (NICNAS) have initiated reviews about the human health effects of formaldehyde. The SEPP (Air Quality Management) classification will be reassessed once the USEPA and Worksafe Australia reviews have been completed.

[4] the wood panel industry has initiated a wood dust work place study, which will be taken into account in any future review of wood dust management.

[5] TCDD I-TEQ means 2,3,7,8-tetrachloro-dibenzodioxin as international toxic equivalents.

[6] due to the acute impacts of these substances the additional safety factor of 10 applied to Class 3 indicators has not been applied.

[7] ALARA means as low as reasonably achievable.

[8] gas volumes are expressed at 25° C and at an absolute pressure of one atmosphere (101.325 kPa).

[9] parts per million (volume/volume)

1. The SEPP (AQM) provides for the establishment of design criteria and intervention levels for pollutants that have been classified as Class 1, Class 2 or Class 3 indicators. These pollutants are classified according to their sources and how widespread they are in the environment, their toxicity, persistence in the environment or their odorous properties. These distinctions are necessary because each class needs to be managed differently to ensure protection of the beneficial uses of the air environment.
2. Class 1 indicators are designated in the SEPP (AQM) as common air pollutants – nitrogen dioxide, sulfur dioxide, carbon monoxide, PM10 and lead. These pollutants are identified in the SEPP (AAQ), have many sources and are widespread in the air environment. Regional air quality is described in part by these indicators.
3. Class 2 and 3 indicators, commonly known as air toxics, are generally source specific. The distinction between Class 2 and 3 indicators is based on the level of toxicity and enables the appropriate level of control to be applied according to the seriousness of the possible adverse effects. Class 2 and 3 indicators are usually (but not always) of concern at a local level. The main exceptions to this are pollutants, such as benzene and formaldehyde, emitted from motor vehicles and domestic sources such as wood heaters. Like the Class 1 indicators, these may be widespread and therefore of regional concern, but may also be of local concern as a result of emissions from industrial sources.

4. The classification of the pollutants as Class 1, 2 or 3 indicators reflects the current understanding of the health effects of the pollutants, thereby ensuring that the beneficial uses of the environment set out in Clause 9 of this Policy are protected. To ensure that the information on which the classifications are set is current, EPA will review these classifications on a minimum of a five-yearly cycle.

5. Many pollutants are both odorous and have toxic properties. Design criteria have been set to protect against adverse health effects. However, where a pollutant is highly odorous it may be offensive to people at relatively low concentrations where adverse health effects would not be expected. Therefore, design criteria in these cases are based on the prevention of offensive odours but human health would also be protected as a consequence.

6. All emissions of pollutants covered by the SEPP (AQM) must be managed to ensure that the beneficial uses identified in Clause 9 of this Policy are protected and that continuous improvement in Victoria's air quality is achieved. Regardless of the classification of a pollutant all emissions must be minimised by the use of best practice as described in Clauses 18 and 19 of this Policy.

7. For Class 3 indicators, additional controls to achieve reductions in emissions to the Maximum Extent Achievable (MEA) are required due to the seriousness of the potential health effects associated with exposure to these chemicals as set out in Clause 20 of this Policy. Design criteria or risk assessment (Clause 16) are then used to ensure that any emissions remaining after application of appropriate control practices are managed in such a way that the beneficial uses of the Policy are protected.

8. Emissions of mixed odorous substances, such as those from sewage treatment farms, rendering plants and intensive animal industries may be offensive and therefore need to be minimised and controlled to ensure that the beneficial uses of the environment are protected. General odour is defined in SEPP (AQM) as an unclassified air quality indicator of local amenity and aesthetic enjoyment of the air environment. The design criteria for new sources of general odour is the odour detection threshold (1 odour unit) and should be applied at and beyond the boundary of a premises.

9. For industries involving intensive animal husbandry, an integrated set of criteria may be applied to ensure beneficial uses are protected. The set of criteria should include:

   - Location in an area with a low density of sensitive land uses. That is, premises must be located in a rural zone;
   - The location is consistent with integrated land use planning considerations such as the long term future of the surrounding land and the likely use of the intervening land between the proposal and sensitive uses;
   - Works designed in accordance with a set of industry performance standards approved by the relevant authorities;
   - operations conducted in accordance with an environmental management plan (EMP) approved by the relevant authorities; and
   - completion of a risk assessment that includes modelling of emissions showing that the predicted maximum odour levels modelled in accordance with Schedule C do not exceed five times the odour detection threshold (3-minute averaging time, 99.9 percentile) at and beyond the property boundary.

10. Proponents of a new or expanded development requiring a works approval or licence from EPA must consult EPA to develop a design criterion for any proposed emission of an unlisted substance.

SCHEDULE B

INTERVENTION LEVELS FOR CLASS 1, 2 AND 3 INDICATORS

This schedule prescribes the intervention levels for Class 1, 2, and 3 indicators referred to in Clause 10 of this Policy. These criteria are to be used in the assessment of local or neighbourhood air monitoring data as described in Clause 27 of this Policy.

SUBSTANCE	UNITS	AVERAGING TIME	INTERVENTION LEVEL
1,3-butadiene	mg/m^3	1-hour	0.11
Benzene	mg/m^3	1-hour	0.075
Formaldehyde	mg/m^3	1-hour	0.015
Nitrogen dioxide	ppm	1-hour	0.14
Carbon monoxide	ppm	1-hour	29
PAHs	mg/m^3	1-hour	0.0005
$PM_{2.5}$	mg/m^3	24-hour	0.036
PM_{10}	mg/m^3	24-hour	0.060
Sulfur dioxide	ppm	1-hour	0.21
Toluene	mg/m^3	1-hour	1.88
Xylenes	mg/m^3	1-hour	2.08

1. Intervention levels are used to assess air quality monitoring data to determine whether the beneficial uses set out in Clause 9 of this Policy are being protected. Intervention levels are not used in the assessment of the design of individual sources. An intervention level is numerically greater than the design criteria for a given pollutant as it does not apply to an individual source but to all sources of the pollutant within a defined area.
2. Intervention levels for 11 indicators have been adopted for inclusion in the SEPP (AQM). The Authority will adopt intervention levels for other pollutants as required.

SCHEDULE C

MODELLING EMISSIONS TO AIR

1. This schedule aims to ensure that the potential impact of new or modified sources of emissions to air in Victoria is:
   (a) estimated using techniques approved by the Authority to predict the maximum concentration of pollutants; and
   (b) assessed against the design criteria prescribed in Schedule A to this policy.
2. For the purposes of this schedule –

   'regulatory model' means a model that has been approved by the Authority for use in the assessment of emissions to air.
3. Proponents required to estimate the impact of their proposal to achieve compliance with the policy must model the emissions to air in accordance with this schedule and any information published by the Authority.
4. Where a protocol for environmental management exists for a specific industry sector, proponents for new or modified sources of emissions for that industry should refer to the specific protocol for environmental management for additional information.

5. This schedule does not apply to the use of –
   (a) emergency response models that are used to evaluate the impact of an accidental or emergency release of air pollutants; or
   (b) regional photochemical air quality models that are used to estimate the dispersion of pollutants throughout a region such as a large urban area.

PART A – MODELLING PROPOSALS

1. If a proponent for a new or modified source of emissions to air is uncertain of the modelling requirements, a modelling proposal should be prepared for discussion with the Authority.
2. For proposals where an alternative to the currently approved version of the regulatory model is to be used, the proponent must submit the modelling proposal in writing to the Authority for written approval.
3. The Authority will approve an alternative to the currently approved version of the regulatory model if it is satisfied that the proponent has demonstrated that the alternative model is appropriate for the circumstances.
4. A modelling proposal should include:
   (a) details of the source and nature of the emissions;
   (b) the methodology to be used to estimate the 'worst case' emission rates;
   (c) a site diagram showing the proposed location of the emissions sources and the site boundary;
   (d) the source of the meteorological data set to be used;
   (e) if a currently approved regulatory model is not to be used, justification for selecting an alternative model; and
   (f) information on background air quality and adjacent sources of the pollutants of interest.

PART B – MODELLING OF EMISSIONS TO AIR FROM STATIONARY SOURCES

The prediction of maximum concentrations for an individual source or group of sources should be undertaken by applying the following procedure.

1. Select the appropriate atmospheric dispersion model.
   (a) Proponents must use the currently approved version of the regulatory model Ausplume to predict the impact of a new or modified source of emissions except where the proponent can demonstrate to the satisfaction of the Authority that an alternative model is appropriate.
   (b) Proponents proposing to use an alternative model under Part B1(a) of schedule C must submit a modelling proposal to the Authority for written approval.

2. Select an appropriate set of meteorological data for use by the model.
   (a) Proponents must use a meteorological data file in model simulations that:
      (i) contains hourly data covering a period of at least one year to ensure that seasonal variations are included;
      (ii) is representative of meteorological conditions within the vicinity of the site;
      (iii) includes precipitation data if the wet deposition option is selected in the model; and
      (iv) is approved by the Authority.
   (b) Proponents proposing to use a meteorological file that is not a standard Ausplume meteorological file must submit details of the methodology and data sources used to create the file to the Authority as part of the modelling proposal.

3. Estimate background concentrations and identify any additional local sources of the pollutant.

(a) Proponents must include background information in the model simulation, except where the proponent can demonstrate to the satisfaction of the Authority that background levels of the pollutant are not significant.

(b) Proponents required to include background data where no appropriate hourly background data exists must add the 70th percentile of one year's observed hourly concentrations as a constant value to the predicted maximum concentration from the model simulation. In cases where a 24-hour averaging time is used in the model, the background data must be based on 24-hour averages.

(c) Proponents for new or modified sources of emissions adjacent to existing sources of the same pollutant must include emissions from the existing sources in the model.

4. Estimate the 'worst case' emissions of the pollutant

(a) Estimates of emission rates must be based on the 'worst case' scenario during normal operations, with any uncertainty in the estimates erring on the side of conservatism.

(b) For non-continuous emissions, where the time period of the emissions is less than the relevant averaging time, then the duration of the emissions should be specified in the model simulation. In all other cases, the 'worst case' emissions must be assumed to be continuous.

(c) In cases where an alternative model to the currently approved version of the regulatory model is used, the proponent must demonstrate to the Authority that appropriate techniques are used to describe the sources and estimate the emissions as part of the modelling proposal.

5. Select a receptor grid and identify any discrete receptors

(a) Predicted concentrations must be modelled on a grid centred on the emission sources.

(b) The grid spacing must be chosen so that the predicted maximum concentration is not significantly underestimated.

(c) Discrete receptors must be included in the assessment in order to assess the impact at any nearby sensitive locations such as hospitals, schools or residences.

(d) Elevated receptors must be included where there are concerns about the impact above ground.

(e) A site plan must be submitted with the modelling proposal or modelling results to show the relative locations of the discharge points, nearby buildings and the site boundary.

6. Select other modelling parameters including averaging times, building wake effects, and terrain effects.

(a) Proponents must use the default options in the currently approved version of the regulatory model except where the proponent can demonstrate to the satisfaction of the Authority that alternative options are appropriate.

(b) Pollutants must be modelled using the averaging time relevant to that pollutant given in Schedule A.

(c) Proponents must ensure that the model simulation includes:

(i) the effects of nearby buildings and structures; and

(ii) the effects of elevated terrain where appropriate.

(d) In cases where an alternative model to the currently approved version of the regulatory model is used, the proponent must demonstrate to the Authority that appropriate model parameters have been selected.

PART C – ASSESSING THE IMPACT OF EMISSIONS TO AIR

1. Predicted maximum concentration

(a) For model simulations using the regulatory model Ausplume, the predicted maximum concentration must be:

(i) taken from the 'top 100 table' of the model results, where:

(a) the 9th highest value (99.9 percentile) is selected for simulations using an averaging time of one hour or less; or

(b) the highest value (100 percentile) is selected for simulations using averaging times longer than one hour; and

(ii) at ground level, except where elevated receptors have been included in the model.

(b) For model simulations using an alternative model to the currently approved version of the regulatory model, the proponent must consult the Authority on the selection of the predicted maximum concentration.

2. Assessment against design criteria for new or modified sources of emissions

(a) The predicted maximum concentration as defined in Part C1 of this schedule must not exceed the design criterion for the relevant pollutant listed in schedule A.

(b) Design criteria for air quality indicators based on toxicity apply everywhere, except inside buildings. In cases where the design criteria can only be met beyond the property boundary, advice should be sought from the Authority in the assessment of the model simulation.

(c) For odorous emissions, the design criteria based on odour apply at and beyond the boundary of the premises.

(d) In cases where the design criteria are not met the proponent may carry out a health risk assessment to demonstrate that there will be no adverse impact from the proposal.

PART D – MODELLING OF EMISSIONS TO AIR FROM PROPOSED TRANSPORT CORRIDORS.

1. Proposed transport corridors such as roads must be assessed using one of the regulatory models for near-road modelling.

2. A regulatory model for near-road modelling may be modified. However, such modified models may only be used for an assessment after written justification for the modifications has been submitted to and approved in writing by the Authority.

SCHEDULE D
EMISSION LIMITS FOR STATIONARY SOURCES IN VICTORIA

Wastes	Sources to which Emission Limit is Applicable	Emission Limit [1,2]		Notes
1. Visible emissions	All stationary sources except: 1. Smoke from fires set for the reduction of a fire hazard or for instruction in the methods of fighting fire or forestry operations. 2. Normal agricultural operations	Ringelmann 1 (BS 2742C, 1957); or of such opacity as to obscure an observer's view to the same degree as emissions corresponding with Ringlemann 1 above		1. Ringlemann 2 acceptable for periods aggregating not more than 3 minutes in any 60 minute period 2. Does not apply to emission of water vapour.
2. Combustion particles	Solid fuel fired units All other units	0.5 g/m^3 0.25 g/m^3		Gas volume calculated to 12 per cent CO_2
3. Particulate matter	All stationary sources except fuel fired units used for steam or electricity generation and incinerators	Process Weight Rate kg/min 0 – 3 3.0 – 10 10 – 100	Max. Emission Rate g/min 17.5 17.5 plus 2.5 per kg/min process weight in excess of 3. 35 plus 1.0 per kg/min process weight in exces of 10.	Process weight is the total weight of all materials introduced into any specific process which may discharge contaminants into the atmosphere: solid fuels charged shall be considered as part of the process weight, but liquid and gaseous fuels and air shall not.

		Over 100 — 125 plus 0.2 per kg/min process weight in excess of 100.	
4. Total particulate matter	All stationary sources	0.5 g/m^3	
6. Sulfuric acid mist and sulfur trioxide	All stationary sources	0.2 g/m^3 as SO_3	
7. Hydrogen sulphide	All stationary sources	7.5 mg/m^3	
8. Nitric acid and oxides of nitrogen	Nitric acid plants	3.0 g/m^3 of nitric acid plus nitrogen oxides, calculated as NO_2	
9. Oxides of nitrogen	Fuel burning units (other than internal combustion engines and glass manufacturing plants) having a maximum heat input rate greater than 150 000 MJ/h gross.	1.0 g/m^3	Nitrogen calculated as NO_2 at a 7 per cent oxygen reference level [3] Emission limit = $C_M \frac{(20.9 - \%\ O_2 \text{ reference})}{(20.9 - \%\ O_2 \text{ measured})}$
10. Lead and its compounds	All stationary sources	10 mg/m^3 expressed as lead	
11. Fluorine compounds	Any new source manufacturing aluminium from alumina All other stationary sources	0.02 g/m^3 expressed as HF 0.05 g/m^3 expressed as HF	

12. Chlorine and chlorine compounds	All stationary sources	0.2 g/m^3 expressed as chlorine	
13. Total of antimony, arsenic, cadmium, lead and mercury		10 mg/m^3 (Addition of each metal or compound expressed as the metal in each case).	
14. Antimony and its compounds		10 mg/m^3 expressed as antimony	
15. Arsenic and its compounds		10 mg/m^3 expressed as arsenic	
16. Cadmium		3 mg/m^3 expressed as cadmium	
17. Nickel and its compounds except nickel carbonyl		20 mg/m^3 expressed as nickel	
18. Nickel carbonyl		0.5 mg/m^3 expressed as nickel	

1 Gas volumes are expressed dry at 0° C and an absolute pressure of one atmosphere (101.325 kPa).

2 Dilution of wastes to meet emission limits shall not be permitted except where noted.

3 C_M is the measured concentration of oxides of nitrogen in grams per cubic metre. Oxygen concentrations are expressed on a volumetric basis.

SCHEDULE E
EMISSION LIMITS FOR NEW STATIONARY SOURCES IN AIR QUALITY CONTROL REGIONS

Wastes	Sources to which Emission Limit is Applicable	Emission Limit [1,2]		Notes
1. Visible emissions	All stationary sources except: 1. Smoke from fires set for the reduction of a fire hazard or for instruction in the methods of fighting fire or forestry operations. 2. Normal agricultural operations	Ringelmann 1 (BS 2742C, 1957); or of such opacity as to obscure an observer's view to the same degree as emissions corresponding with Ringlemann 1 above		1. Ringlemann 2 acceptable for periods aggregating not more than 3 minutes in any 60 minute period 2. Does not apply to emission of water vapour
2. Combustion particles	a. All stationary sources except as described hereunder b. Incinerators with design burning rates of 300 kg per hour or less	0.25 g/m^3 0.5 g/m^3		Gas volume calculated to 12 per cent CO_2
3. Particulate matter	All stationary sources except fuel fired units used for steam or electricity generation and incinerators	Process Weight Rate kg/min 0 – 3 3.0 – 10 10 – 100	Max. Emission Rate g/min 14 14 plus 2.0 per kg/min. process weight in excess of 3 28 plus 0.8 per kg/min process weight in excess of 10.	Process weight is the total weight of all materials introduced into any specific process which may discharge contaminants into the atmosphere: solid fuels charged shall be considered as part of the process weight, but liquid and gaseous fuels and air shall not.

		Over 100 100 plus 0.18 per kg/min process weight in excess of 100.	
4. Total particulate matter	All stationary sources except as provided in 2b	0.25 g/m^3	
5. Sulfur dioxide	Sulfuric acid plants	2.0 kg/tonne of 100% acid	
6. Sulfuric acid mist and sulfur trioxide	a) All stationary sources b) Sulfuric acid plants	0.2 g/m^3 expressed as SO_3 0.075 kg/tonne of 100% acid expressed as H_2SO_4	
7. Hydrogen sulphide	All stationary sources	5.0 mg/m^3	Any source discharging H_2S at a rate of less than 2 g/h dilute to meet the provisions of Section 7.
8. Nitric acid and oxides of nitrogen	Nitric acid plants	2.0 g/m^3 of nitric acid plus nitrogen oxides, calculated as NO_2	
9. Oxides of nitrogen	Fuel burning units (other than internal combustion engines and glass manufacturing plants) having a maximum heat input rate greater than 150 000 MJ/h gross except as described hereunder	a 0.35 g/m^3 for gaseous fuels b. 0.5 g/m^3 for liquid or solid fuels	Nitrogen calculated as NO_2 at a 7 per cent oxygen reference level [3] Emission limit = $\frac{C_M (20.9 - \%\ O_2 \text{ reference})}{(20.9 - \%\ O_2 \text{ measured})}$

	Power station boilers for electricity generation of rated output equal to or greater than 250 MW	0.7 g/.m^3 for solid fuels	This limit may be relaxed to 0.78 g/m^3 in individual cases where it can be shown that 0.7 g/m^3 is too restrictive in relation to such matters as the type of fuel being burned, existing emission control technology and factors of health and safety.
	Gas turbines for electricity generation: – Rated output equal to or greater than 30 MW – Rated output less than 30 MW	 a 0.07 g/m^3 for gaseous fuels b 0.15 g/m^3 for other fuels 0.09 g/m^3 for gaseous fuels	Nitrogen oxides calculated as NO_2 at a 15 per cent oxygen reference level[3].
10. Carbon monoxide	All stationary sources except internal combustion engines and cold blast cupolas	2.5 g/m^3	
11. Lead and its compounds	All stationary sources	10 mg/m^3 expressed as lead	
12. Fluorine compounds	Any plant manufacturing aluminium from alumina All other sources	0.02 g/m^3 expressed as HF 0.05 g/m^3 expressed as HF	
13. Chlorine and chlorine compounds	All stationary sources	0.2 g/m^3 expressed as chlorine	
14. Total of antimony, arsenic, cadmium, lead and mercury		10 mg/m^3 (Addition of each metal or compound expressed as the metal in each case).	

15. Antimony and its compounds		10 mg/m^3 expressed as antimony	
16. Arsenic and its compounds		10 mg/m^3 expressed as arsenic	
17. Cadmium		3 mg/m^3 expressed as cadmium	
18. Nickel and its compounds except nickel carbonyl		20 mg/m^3 expressed as nickel	
19. Nickel carbonyl		0.5 mg/m^3 expressed as nickel	

[1] Gas volumes are expressed dry at 0° C and an absolute pressure of one atmosphere (101.325 kPa).

[2] Dilution of wastes to meet emission limits shall not be permitted except where noted.

[3] C_M is the measured concentration of oxides of nitrogen in grams per cubic metre. Oxygen concentrations are expressed on a volumetric basis.

SCHEDULE F
AIR QUALITY CONTROL REGIONS
Port Phillip Air Quality Control Region

Coordinates

SW corner: 224000E, 5717000N

East-west distance: 171 km

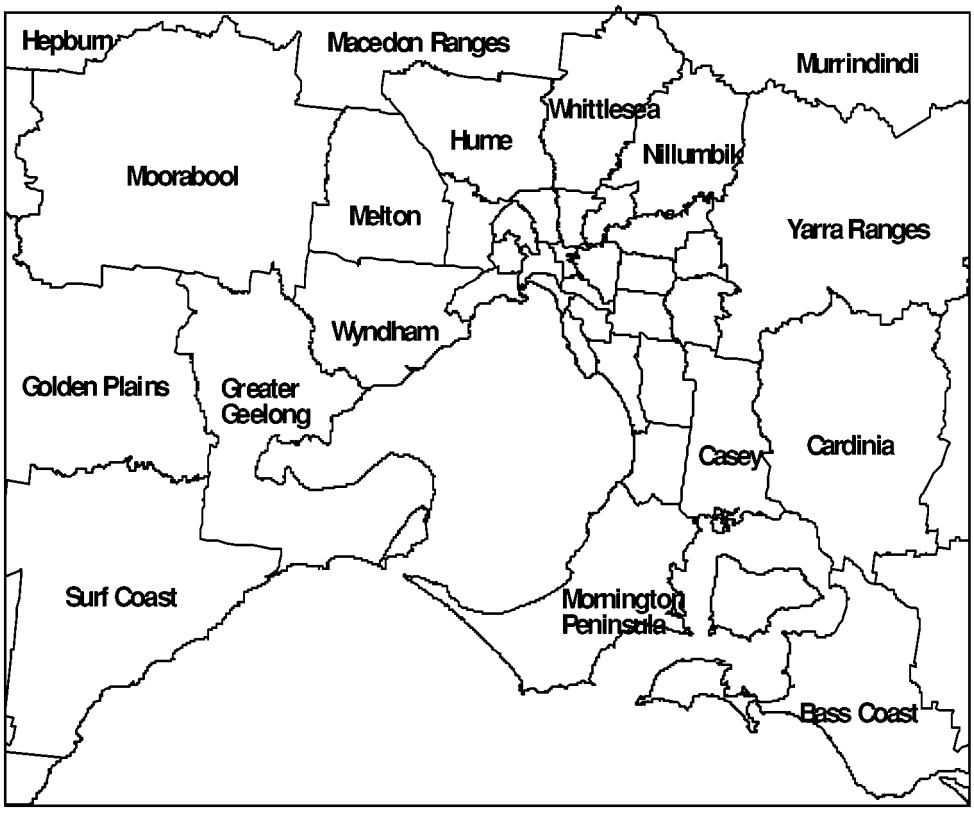
North-south distance: 141 km

Local Government Areas fully within Port Phillip Air Quality Control Region

Banyule, Bass Coast, Bayside, Boroondara, Brimbank, Cardinia, Casey, Darebin, Frankston, French Island, Glen Eira, Greater Dandenong, Greater Geelong, Hobson Bay, Hume, Kingston, Knox, Manningham, Maribyrnong, Maroondah, Melbourne, Melton, Monash, Moonee Valley, Moorabool, Moreland, Mornington Peninsula, Nillumbik, Port Phillip, Queenscliffe, Stonnington, Whitehorse, Whittlesea, Wyndham, Yarra

Local Government Areas partly within Port Phillip Air Quality Control Region

Ballarat, Baw Baw, Colac-Otway, Golden Plains, Hepburn, Macedon Ranges, Murrindindi, South Gippsland, Surf Coast, Yarra Ranges,



Latrobe Valley Air Quality Control Region

Coordinates

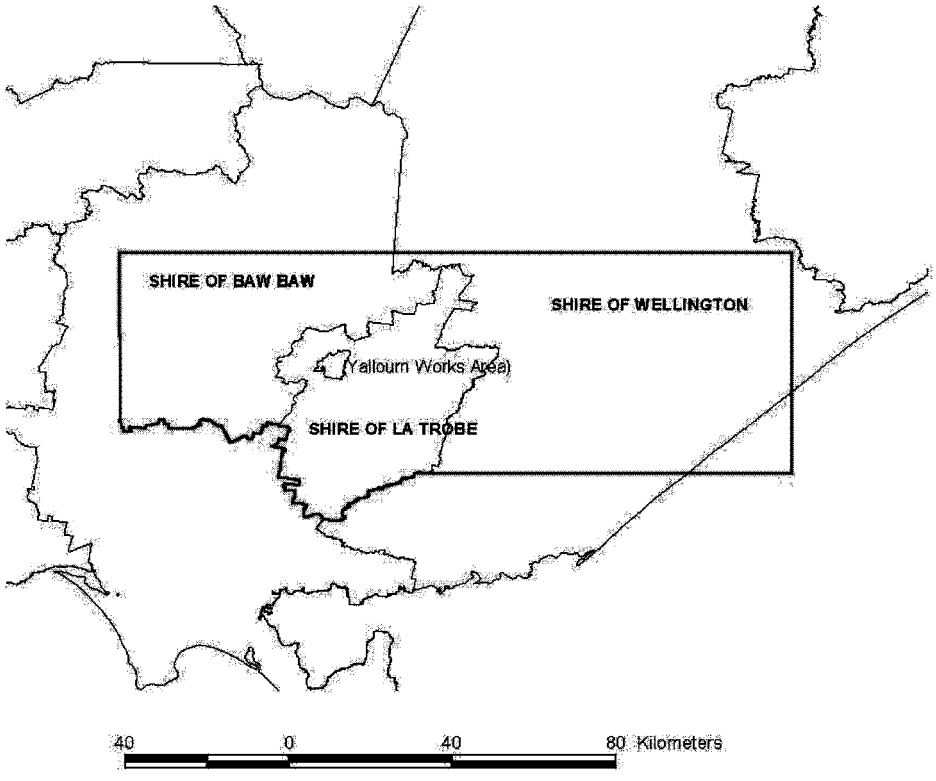
NW corner: 402000E, 5800000N

East-west distance: 129 km

North-south distance: 54 km at eastern end

Western part of the southern boundary follows the Shires of Baw Baw and La Trobe

The region fully encloses La Trobe Shire and the Yallourn Works Area. It includes parts of the Shires of Baw Baw and Wellington



SCHEDULE G
ALERT LEVELS FOR SELECTED CLASS 1 INDICATORS

Indicator	Averaging Period (Hours)	Alert Level (ppm)[a]
Carbon Monoxide (CO)	1	120
Nitrogen dioxide (NO_2)	1	0.50
Oxidant – as Ozone (O_3)	1	0.25
Sulfur dioxide (SO_2)	1	0.50

a – parts per million (volume/volume)

Dated 27 November 2001
Responsible Minister
SHERRYL GARBUTT MP
Minister for Environment and Conservation

HELEN DOYE
Clerk of the Executive Council

EXPLANATORY NOTES

Background to State environment protection policy (Air Quality Management)

State environment protection policies are declared by the Governor in Council under section 16 of the **Environment Protection Act 1970**.

State environment protection policies provide a framework for environmental decision-making and a clear set of publicly agreed environmental objectives that all sections of the community must work together to achieve. Environment protection programs in Victoria are developed within this broad framework.

A State environment protection policy may apply to Victoria generally or to a portion of the State and will include –

- identification of the beneficial uses of the environment that are to be protected (beneficial uses include uses of the environment such human health, amenity and ecosystem protection);
- selection of indicators (measures) of environmental quality;
- a statement of environmental quality objectives; and
- an attainment program which outlines selected measures which will support attainment of the policy's environmental quality objectives.

The State environment protection policy (The Air Environment) was made in 1981 and established a framework of ambient environmental quality objectives and management measures to achieve those objectives. This policy was varied in February 1999 to take account of the development of the National Environment Protection Measure for Ambient Air Quality and renamed as State environment protection policy (Air Quality Management).

The State environment protection policy (Air Quality Management) provides a framework for the protection of the air environment throughout Victoria. Ambient air quality objectives are contained in the State environment protection policy (Ambient Air Quality). The State environment protection policy (Air Quality Management) operates in conjunction with the State environment protection policy (Ambient Air Quality). The two policies should be read together.

State environment protection policy (Air Quality Management) in detail

The policy is preceded by the necessary legal preamble for an Order in Council.

Title

Clause 1 states that the title of the policy is the State environment protection policy (Air Quality Management).

Commencement

Clause 2 states when the policy will come into effect.

Revocation of redundant State environment protection policy

Clause 3 revokes the Order declaring the previous State environment protection policy (Air Quality Management) and all the amending Orders.

Application of the policy

Clause 4 states that the application of the policy extends to Victoria's outdoor air environment and emissions of greenhouse gases and ozone-depleting substances but that it does not apply to indoor air quality.

Contents of the policy

Clause 5 provides a table of contents for the policy.

PART I – POLICY FRAMEWORK

Policy aims

Clause 6 outlines that the policy aims to ensure that environmental quality objectives are met; drive continuous improvement in air quality, having regard to the social and economic development of Victoria; and support measures to address the enhanced greenhouse effect and depletion of the ozone layer.

Policy principles

Clause 7 outlines the principles of environment protection that guide actions undertaken in accordance with this policy. These principles mirror the principles of environment protection contained in the **Environment Protection Act 1970**.

Policy intent

Clause 8 indicates what the introduction and implementation of the policy seeks to achieve.

Beneficial uses

Clause 9 sets out the following beneficial uses of the air environment to be protected throughout Victoria: life, health and well-being of humans; life, health and well-being of other forms of life, including the protection of ecosystems and biodiversity; local amenity and aesthetic enjoyment; visibility; the useful life and aesthetic appearance of buildings, structures, property and materials; and climate systems that are consistent with human development, the life, health and well-being of humans and the protection of ecosystems and biodiversity.

PART II – ENVIRONMENTAL INDICATORS AND ENVIRONMENTAL QUALITY OBJECTIVES

Air quality indicators

Clause 10 states that there are three classes of air quality indicators defined for the purposes of the policy and enables the Authority to classify particular air pollutants as a class 1, 2 or 3 indicator. The clause further states that odour and nuisance dust will be indicators of local amenity and aesthetic enjoyment.

This clause also states that the Authority will establish design criteria and intervention levels for the three classes of air quality indicators.

Ambient air quality objectives

This clause states that the environmental quality objectives for the purposes of this policy are set out in State environment protection policy (Ambient Air Quality).

PART III – ATTAINMENT PROGRAM

POLICY RESPONSIBILITIES

Development of National Measures

Clause 12 states that the Authority will work with other government agencies including local government to develop national environment protection measures, policies and strategies for environmental management; and that stakeholders will be consulted both during the development of these measures, policies and strategies and with regard to their implementation.

Implementation

Clause 13 outlines how the Authority and protection agencies will implement the policy.

When making decisions and formulating strategies, plans and programs the Authority and protection agencies will apply the policy principles and pursue the aims and intent of the policy as well as applying any national air related measures, policies and strategies that have been adopted by Victoria when making decisions and formulating strategies, plans and programs.

In addition, the Authority will employ a range of statutory and non-statutory measures in implementation.

Implementation of the policy for existing licensed premises will commence from the time the policy variation is declared and take place over the next five-years, with some flexibility to take account of the particular circumstances of individual industries and premises.

For Class 1 indicators, existing licensed premises will be expected to comply with the policy within five years in order to ensure that the goals and objectives of the State environment protection policy (Ambient Air Quality) are met. For Class 2 and 3 indicators, more flexibility will be provided, with the option of implementation and compliance details being set out in Protocol for Environmental Management for particular industries, and environment improvement plans for individual companies.

A higher priority will be put on existing premises emitting Class 3 indicators achieving compliance with the policy than those existing premises emitting Class 2 indicators, because of the extremely hazardous nature of Class 3 indicators.

Compliance periods of greater than 10 years (the life of the policy before review) will not be accepted.

Accountability

Clause 14 outlines how the Authority will seek to be accountable to the community on air quality issues, in particular, through the provision of information and maintaining an open and constructive dialogue.

ENVIRONMENTAL MANAGEMENT INSTRUMENTS

Protocols for environmental management

Clause 15 states that the Authority will develop protocols for environmental management which will be developed in consultation with stakeholders and may address a range of issues.

Such protocols may be developed for managing emissions of sources and the impacts on air quality and for the management of wastes that may generate emissions.

Generators of emissions must manage their emissions in accordance with any applicable protocol for environmental management.

The Authority will keep a public register of all current protocols.

Risk assessment

Clause 16 places an obligation on the Authority to develop a protocol for environmental management on the use of risk assessment in air quality management.

Separation distances

Clause 17 places an obligation on the Authority to develop a protocol for environmental management on the provision of separation distances between sources of air emissions and sensitive land uses.

MANAGEMENT OF EMISSIONS

General requirements

Clause 18 defines what the management of emissions and what a generator of emissions means for the purposes of this policy.

This clause specifies the general requirements on generators of emissions to manage their activities and emissions in accordance with the requirements of the policy, apply best practice and pursue continuous improvement.

Management of new sources of emissions

Clause 19 specifies the minimum requirements for environmental management by a generator of any new or substantially modified source of emissions.

As a minimum, best practice is required. However, where a new or substantially modified source will be generating class 3 indicators, the emissions must be reduced to the maximum extent achievable.

Management of Class 3 indicators

This clause states the requirements for managing Class 3 indicators, namely reduction to the maximum extent achievable. It also enables the Authority to prohibit the emission of a Class 3 indicator where it is considered to constitute a significant public health threat.

The expectation for reduction of emissions of Class 3 indicators to the maximum extent achievable imposes a higher expectation for emissions reduction than the expectation for reduction of emissions of Class 1 and 2 indicators (which is through the application of best practice).Best practice reflects the best combination of eco-efficient techniques, methods, processes or technology

that apply across an industry, whereas reduction to the maximum extent achievable focuses on what is most effective and practicable for an individual premises. This may include innovative and new approaches. Reduction to the maximum extent achievable may be equivalent to application of best practice within an industry, but it may also go beyond that.

The clause further states that when a substance that has not previously been classified as a Class 3 indicator is classified as such, any affected licensee must develop an environment improvement plan, or revise an existing environment improvement plan, within twenty-four months. The plan must contain the measures by which the licensee intends to reduce emissions of the Class 3 indicators to the maximum extent achievable and the time frame within which those measures will be implemented.

Monitoring of emissions

Clause 21 outlines that the Authority may require a generator to measure and report on its emissions. Any reports produced in accordance with this clause will be public documents.

Management of emissions from stationary sources

This clause enables the Authority to exempt a scheduled premises from compliance with the requirements of a specific Schedules and protocol for environmental management in certain circumstances.

This clause is also specific to existing wood pulp mills licensed to employ the Kraft process and enables such mills to comply with the policy provided that they also comply with the requirements of a protocol for environmental management and operate in accordance with an Authority approved environment improvement plan.

Commissioning, startup and shutdown of equipment

Clause 23 specifies that the Authority may place conditions under which emission limits contained in a protocol for environmental management may be exceeded during certain periods.

GENERAL MANAGEMENT OF AIR QUALITY

Monitoring of air quality

This clause places requirements on the Authority to undertake air quality monitoring to achieve certain outcomes. The clause also states that the Authority may require generators of emissions to measure and report on the levels of their emissions in the local air environment.

Air quality research

This clause requires the Authority to undertake research, both on its own and in partnership with others, into air pollution and its impacts on beneficial uses and human health.

Emergency abatement plan

Clause 26 commits the Authority to the development of an emergency abatement plan in consultation with other stakeholders. It also outlines the circumstances in which the Authority will implement the plan, once developed.

MANAGEMENT OF LOCAL AIR QUALITY

Local air quality management

This clause outlines the ways in which the Authority will seek to protect local air quality.

It specifies the considerations the Authority and protection agencies will take into account in assessing new development proposals.

In particular, any protocol for environmental management relating to separation distances must be taken into consideration and the provision of a separation distance cannot be used as an alternative means to meeting emissions management requirements under the policy.

This clause also places requirements on the Authority to work with stakeholders to protect local amenity and encourage the development of voluntary neighbourhood environment improvement plans. The Authority may direct a protection agency to develop a neighbourhood environment improvement plan under certain circumstances.

Modelling of emissions

This clause outlines that the Authority may require a generator of emissions to undertake modelling in addition to meeting its requirements to manage its emissions. New sources of emissions must be modelled to ensure that the beneficial uses of the environment are protected.

Modelling of emissions is used during the design phase of a new source to estimate the potential impact of the proposal for assessment against design criteria. EPA Victoria may require modelling of emissions from existing sources to assist with risk assessments associated with site activities, and as an aid in determining the most effective means of reducing emissions.

MANAGEMENT OF REGIONAL AIR QUALITY

Establishment of air quality control regions

Clause 29 identifies the two air quality control regions created under the policy, which are defined in Schedule F. The clause also enables the Authority to establish regions of special significance. The Authority will publish all decisions made under this clause in the Government Gazette.

Air quality management in air quality control regions

This clause specifies some of the actions the Authority may take to reduce emissions in an air quality control region.

The Authority may require a generator of emissions to reduce its emissions to a greater extent than the general requirements under this policy for the purposes of improving or maintaining regional air quality.

A works approval application for a large new source of emissions in a region may be refused unless emission reductions from other sources are able to offset the impacts of the proposed emissions.

The Authority may also identify regional priorities and strategies, or establish emission offsets or trading programs through a protocol for environmental management.

Air quality improvement plans for air quality control regions

Clause 31 states that the Authority may develop an air quality improvement plan for any of the regions established under clause 29.

This clause outlines the purposes of such plans and the ways in which the Authority will seek to implement them.

Air quality forecasting and reporting

Clause 32 requires the Authority to establish a forecasting system and issue regular bulletins and advice to the community.

MANAGEMENT OF GLOBAL ISSUES

Management of greenhouse gases

Clause 33 requires generators of greenhouse gases to manage the emissions of those gases in accordance with the general requirements for minimising emissions under this policy.

A requirement is placed on the Authority to develop a protocol for environmental management for greenhouse gas emissions and that this protocol will be applied to statutory approval processes such as works approval and licensing.

Management of ozone-depleting substances

This clause outlines what the Authority will do to contribute to the development of policies and strategies on ozone-depleting substances.

It also reinforces requirements on generators of emissions of ozone-depleting substances to comply with all relevant legislation.

MANAGEMENT OF DIFFUSE SOURCES OF EMISSIONS

Management of motor vehicles and fuels

Clause 35 outlines the requirements on manufacturers of motor vehicles and the producers and marketers of fuels used in those vehicles.

This clause also outlines the Authority's role in minimising emissions from motor vehicles, including the steps the Authority will take in relation to improving the in-service performance of motor vehicles, reducing emissions that arise as a result of the overall level of motor vehicles uses, and facilitating the introduction of new technologies and alternative fuels that result in lower emissions.

Management of other mobile sources

Clause 36 places a requirement on the Authority to monitor and where appropriate, support national and international measures to minimise emissions from other mobile sources.

Management of prescribed burning

Clause 37 outlines what the Authority will do in relation to prescribed burning including placing an obligation on the Authority to develop protocols for environmental management for managing the potential impacts of prescribed burning in consultation with stakeholders.

Management of waste burning

This clause states that the burning of waste in the open (including domestic incinerators) is not permitted except where it occurs in accordance with council local laws. Any council local laws created by municipalities must have regard to the policy. In addition, the burning of industrial waste in the open may only occur with written permission from the Authority.

Management of solid fuel heaters

This clause states that the Authority will look at measures including subordinate legislation to discourage reliance on solid fuel heaters that do not comply with the Australian Standard and encourage replacement of those heaters with ones that do comply and are energy efficient.

Management of large line and area-based sources of emissions

This clause commits the Authority to the development of protocols for environmental management for large line sources (transport routes) and industrial or commercial area-based sources such as extractive industries and mining. These will take into account the activities of a transitory nature of in these industries.

With regard to road proposal options, the Authority will investigate and develop techniques for improved assessment of the environmental impacts of such proposals.

SCHEDULE A – CLASS 1, 2, 3 AND UNCLASSIFIED INDICATORS AND DESIGN CRITERIA

Schedule A prescribes the Class 1, 2, 3 and unclassified indicators and their design criteria. These criteria are to be used in the assessment of the design of new or expanded sources of emissions such as industrial premises. They are to be used in conjunction with the modelling procedures outlined in Schedule C of the policy.

Design criteria specified in Schedule A of this Policy have been derived as follows:

- **Class 1** – For NO_2, CO and SO_2, the design criteria have been derived from the identified Lowest Observed Adverse Effects Level (LOAEL) or No Observed Adverse Effects Level (NOAEL) with appropriate safety factors applied. The values for PM_{10} (and $PM_{2.5}$, a Class 2 indicator) have been derived from the TSP value using known relationships between these size fractions.
- **Class 2** – Design Criteria for Class 2 indicators have been derived from the current Worksafe Australia Occupational Health and Safety TWA values divided by a safety factor of 30. This safety factor accounts for extrapolation from a healthy adult exposed over their working life to the general population potentially exposed over a lifetime. This extrapolation takes into account the protection of sensitive groups including the elderly and children.
- the odour based design criteria for Class 2 indicators have been set at the odour detection threshold for individual substances.

- **Class 3** – Design criteria for Class 3 indicators are derived in a similar manner to those for toxicity based Class 2 indicators. An additional safety factor of 10 is applied due to the seriousness of the potential health effects arising from exposure to these pollutants.
- **Unclassified indicators** – The design criteria for TSP has been derived from the Worksafe Australia TWA values divided by 30. For general odours of mixed composition, the design criterion is set at the odour detection threshold (1 OU).
- **Unlisted substances** – For indicators not specified in this PEM that may require consideration through a Works Approval process, design criteria will be derived on a case by case basis using the approaches outlined in Schedule A of this Policy, taking into account the relevant criteria for the classification of indicators.

In situations where the design criteria cannot be met, a risk assessment taking account of site-specific circumstances and demonstrating that the beneficial uses of the environment are protected will be considered. PEMs for specific industries, such as those identified in Clause 40 relating to large line and area-based sources, will include design criteria relevant to that industry. The design criteria for TSP, PM_{10}, $PM_{2.5}$, arsenic and respirable crystalline silica for large area-based sources will be specified in these PEMs, taking into account the special circumstances of these industries, including the intermittent and transitory nature of their operations.

SCHEDULE B – INTERVENTION LEVELS FOR CLASS 1, 2 AND 3 INDICATORS

This schedule prescribes the intervention levels for Class 1, 2 and 3 indicators referred to in Clause 10 of this Policy.

Two approaches have been used to derive the intervention levels in Schedule B:

- for Class 1 indicators, the intervention levels have been set at 20% above the relevant ambient air quality objectives specified in the SEPP (AAQ). This approach is similar to that used by the USEPA in their Prevention of Significant Deterioration (PSD) program for air quality. These levels should not considered as 'acceptable' levels but as levels that, if exceeded, would trigger action to improve local air quality through a NEIP process.
- the intervention levels for selected Class 2 and 3 indicators have been adopted from the Texas Natural Resource and Conservation Commission Effects Screening Levels. These numbers are risk based and are set for carcinogens at a risk level of 1 in 100,000. They have been derived as trigger levels to initiate further investigation if they are exceeded. For Class 2 indicators the levels have been derived from the LOAEL or NOAEL for each pollutant.

SCHEDULE C – MODELLING EMISSIONS TO AIR.

This schedule provides for modelling the transport and dispersion of wastes discharged to the air environment to achieve compliance with the policy.

Proponents required to estimate the impact of their proposal to achieve compliance with the policy must model the emissions to air in accordance with this schedule.

This schedule applies to all new or modified sources of emissions to air from stationary industrial or commercial sources and proposed transport corridors. The scope of the schedule is as follows:

- the use of models to predict the potential air quality impact of a proposed new source of emissions;
- the use of models to evaluate emission control strategies;
- the application of alternative plume dispersion models, meteorological data and modelling parameters;
- the assessment of predicted concentrations of pollutants from proposed new or modified sources of emissions.

This schedule should be read in conjunction with any additional information published by the Authority.

Schedule A to the policy specifies design criteria for air pollutants that are to be used for assessing modelling results. Potential generators of emissions to air are required to minimise their emissions as far as possible in accordance with the requirements of the policy then model remaining emissions using the 'worst case' scenario to determine the predicted maximum concentration. The predicted maximum concentration will be at ground level, except where elevated receptors have been included in the model. In that case the predicted maximum concentration at the appropriate elevation must be determined for each pollutant emitted, and must be less than the design criterion for that pollutant.

For modelling based on averaging times of one hour or less, the 99.9 percentile predicted concentration from the dispersion model is defined as the predicted maximum concentration. The 99.9 percentile is selected because this avoids the possibility of setting expensive emission controls based on a single extreme set of meteorological conditions. When estimating concentrations based on averaging times of one hour or less for a full year of meteorological data (8760 hours), the 99.9 percentile is the 9th highest predicted concentration. At least one full year of meteorological data must be used.

In cases where a 24-hour averaging time or longer is used in the model, the maximum value calculated is used as the predicted maximum concentration for comparison against the design criterion.

For industry groups with special requirements, a protocol for environmental management for that industry may be developed to include any information on the assessment of emissions that may be in addition to the information in this schedule.

Motor vehicles are a significant contributor to emissions to air in Melbourne. Emissions to air from large line sources such as new transport corridors should be modelled and assessed against the relevant design criteria using a regulatory model for near-road modelling.

Further information on the use of these models and assessment of the predicted impacts should be sought from the Authority. Additional protocols and guidance for modelling roads will be given in any future protocol for environmental management developed for the purpose.

SCHEDULE D – EMISSION LIMITS FOR STATIONARY SOURCES IN VICTORIA

This schedule defines emission limits for stationary sources. The emission limits specified in Schedule D are not the best control possible. These are the maximum limits allowable except where the Protocol for Environmental Management (Minimum Control Requirements for Stationary Sources) or another applicable PEM apply. More stringent limits may be applied where conditions warrant greater control.

SCHEDULE E – EMISSION LIMITS FOR NEW STATIONARY SOURCES IN AIR QUALITY CONTROL REGIONS

This schedule provides that new stationary sources in Air Quality Control Regions must achieve a higher degree of emission control than that provided for in Schedule D. This provision has the advantage of controlling emissions in regions experiencing air quality problems while avoiding unnecessarily stringent controls on a statewide basis.

SCHEDULE F – AIR QUALITY CONTROL REGIONS

This schedule defines the geographical limits of the two Air Quality Control Regions and by difference, the other areas of Victoria.

SCHEDULE G – ALERT LEVELS FOR SELECTED CLASS 1 INDICATORS

Schedule G lists the Alert Levels. The Alert Levels area expressed in terms of one-hour averaged values as it is more feasible to develop a predictive capability for the shorter averaging periods.

Environment Protection Act 1970

STATE ENVIRONMENT PROTECTION POLICY (AMBIENT AIR QUALITY)

The Governor in Council, under section 16(2) of the **Environment Protection Act 1970**, and on the recommendation of the Environment Protection Authority, declares the following variation to State environment protection policy (Ambient Air Quality) to be observed throughout Victoria.

1. Purpose

The purpose of this Order is to vary the State environment protection policy (Ambient Air Quality) to remove certain environmental quality objectives for photochemical oxidants (as ozone) in that policy relating to the protection of vegetation.

2. Commencement

The Order will come into operation upon publication in the Government Gazette.

3. Variation to SEPP (Ambient Air Quality)

In Schedule 2 to the State Environment Protection Policy (Ambient Air Quality):

(a) in Column 3 of Item 3 delete '8 hours' wherever occurring;

(b) in Column 4 of Item 3 delete '0.05 ppm' and '0.08 ppm' where it occurs last;

(c) in Column 5 of Item 3 delete '3 days a year' and 'none'.

Dated 27 November 2001

Responsible Minister
SHERRYL GARBUTT MP
Minister for Environment
and Conservation

HELEN DOYE
Clerk of the Executive Council

EXPLANATORY NOTES

Purpose

Clause 1 states that the purpose of this Order is to vary the State environment protection policy (Ambient Air Quality) to remove certain environmental quality objectives for photochemical oxidants (as ozone) in that policy relating to the protection of vegetation.

Commencement

Clause 2 states when the policy will come into effect.

Variation to SEPP (Ambient Air Quality)

Clause 3 sets out the environmental quality objectives for photochemical oxidants (as ozone) that are to be removed from State environment protection policy (Ambient Air Quality).

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