



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

**THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT,
(ACT NO. 39 OF 2004), STANDARDS AND REGULATIONS**



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AN INTRODUCTION TO THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004, "THE AQA")

INTRODUCTION

With the rapid development of heavy industry in South Africa in the fifties and sixties came the associated rapid increase in atmospheric emissions and air pollution and the concomitant reduction of ambient air quality in the urban and industrial areas. By the late fifties there was a general consensus that some form of air pollution regulation was required and, by 1965, air quality management in South Africa was informed and regulated by the Atmospheric Pollution Prevention Act (Act No. 45 of 1965) (an Act that became known as "the APPA").

The APPA itself was based on the British Alkali Act, a piece of legislation dating back to the late 1800s. The APPA, as with much environment protection legislation from this era, concentrated largely on industrial pollution and used a traditional 'command and control' method of emission permitting for industries identified as being relatively significant sources of air pollution.

Although it could be argued that the APPA and the way that the APPA was implemented ensured that gross emissions of air pollution was, largely, prevented, it can also be argued that ambient air quality was not being sufficiently protected. Indeed, by the late 1980s concerns around ambient air quality had expanded from academic circles to many communities around the country.

THE NEW APPROACH TO AIR QUALITY GOVERNANCE

By the 1990s it was clear that a more modern approach to air quality regulation was required, an approach that was better aligned to South Africa's new Constitution and especially the right of all to an environment that is not harmful to health and well-being. To this end and informed by Government's Integrated Pollution and Waste Management Policy of 2000, the development of a draft Air Quality Bill was initiated in late 2001.

This new approach is an objectives or outcomes-based approach that takes the Constitution as its departure point. In essence, the desired outcome of the efficient and effective implementation of this new legislation is national air quality that is not harmful to health and well-being. The new legislation defines air quality that is not harmful to health and well-being through ambient air quality standards. The rest of the legislation then provides the regulatory tools and mandates for government to deliver the desired outcome.

After a participatory development process that took three years of discussion and debate, the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004, "The AQA") was made law by the President on 19 February 2005 and was brought into effect by the Minister on 11 September 2005 (with the exclusion of the provisions relating to atmospheric emission licensing).

Once the Minister was convinced that the authorities responsible for implementing the AQA atmospheric emission licensing system were fully capacitated to fulfil this function, the remainder of the AQA was brought into effect on 1 April 2010.

AN OVERVIEW OF THE AQA

The following provides a brief, chapter by chapter, overview of the AQA –

Chapter 1

The introductory chapter of the Act defines the specific terminology used, sets out the objectives of the Act and makes reference to the environmental management principles set forth in the National Environmental Management Act, 1998 (Act No. 107 of 1998).

Chapter 2

This chapter deals with the critical air quality governance matters, and is divided into three parts, namely, the establishment of the national framework (Part 1); the establishment of ambient air quality standards and local emission standards (Part 2); and air quality monitoring and reporting (Part 3).

Part 1: Establishment of the National Framework

This part requires the Minister to establish a national framework within a specified timeframe. The part also sets out the air quality management matters that must be contained in the national framework. The former Minister of Environmental Affairs and Tourism published the first generation National Framework for Air Quality Management in the Republic of South Africa on 11 September 2007. The national framework is regarded as the national implementation plan for the AQA.

Part 2: Establishment of National and Provincial Ambient Air Quality Standards and Local Emission Standards

National and provincial ambient air quality standards

This part provides for the identification of criteria pollutants and the setting of ambient standards in respect of these pollutants. To this end, the Minister and MEC are provided with the legal mandate to establish national ambient air quality standards and provincial ambient air quality standards respectively. However, in a situation where the Minister has established national ambient air quality standards the MEC may not alter the national standards except by establishing stricter standards for the province or for any geographical area within the province.

As mentioned in the introduction, these standards define what constitutes ambient air that is not harmful to health and well-being. With this, ambient air quality standards provide the goals and objectives for all air quality management plans and the yardstick against which the efficacy of these plans can be measured.

Furthermore, this part provides municipalities with a legal mandate to identify pollutants and establish local emission standards in respect of these pollutants.

Part 3: Ambient Air Quality and Emission Measurements

This part allows the Minister to prescribe the methods of measurements for ambient air quality as well as emissions from point, non-point or mobile sources. The Section 9 notice (National Ambient Air Quality Standards) and Section 21 notice (National List of Activities

and its Associated Minimum Emission Standards), sets out these methods of measurement.

Chapter 3

This chapter provides for the establishment of a multi-stakeholder National Air Quality Advisory Committee to advise the Minister on the implementation of the Act. The chapter also places a legal obligation on the Minister, MECs and all municipalities to designate an air quality officer within their respective administrations. The air quality officers are responsible for the coordination of air quality management activities as set out in the national framework.

Chapter 3 further deals with the development of air quality management plans in all spheres of government. In order not to duplicate the planning and reporting responsibilities of government, this chapter indicates how air quality planning must be integrated with existing activities, i.e. the plans required in terms of NEMA must incorporate a consideration of air quality whereas Integrated Development Plans compiled by municipalities must also take air quality into account.

Chapter 4

This chapter sets out the various regulatory tools or measures available to government for implementing and enforcing the Act, and is divided into six parts, namely, priority areas (Part 1); listing of activities resulting in atmospheric emissions (Part 2); controlled emitters (Part 3); controlled fuels (Part 4); other measures (Part 5); and measures in respect of dust, noise and offensive odours (Part 6). The tools have been designed in such a way as to ensure an optimal mix of regulatory approaches that will ensure that the diversity of air

pollution issues can be managed in the most effective manner, with the least possible administrative burden and use of resources.

Part 1: Priority Areas

This part provides the Minister and MEC the power to identify air pollution “hot spots” for focused attention. After the Minister or MEC declares an area as either national priority area or provincial priority area, the national air quality officer (in a case of national priority area) or provincial air quality officer (in a case of provincial priority area) must develop an air quality management plan to be implemented to bring the area into compliance with ambient air quality standards.

Part 2: Listing of activities resulting in atmospheric emissions

This part requires the Minister or MEC to identify and publish a list of activities which result in atmospheric emissions that require an atmospheric emission licence before they can operate. A list published by the Minister applies nationally and a list published by the MEC applies to the relevant province only. In addition, the list must contain minimum emission standards in respect of pollutants resulting from the activities. No person may undertake a listed activity without an atmospheric emission licence.

Part 3: Controlled emitters

This part allows the Minister or MEC to identify certain classes of emitters and develop emission standards for such emitters. These are emitters not identified under Part 2, e.g. small boilers, motor vehicles, fuel transfer points at petrol stations, etc. This regulatory measure targets the manufacturer, sellers as well as users of the emitter. As a

result, no person may manufacture, sell or use any emitter declared as such unless that controlled emitter complies with its associated emission standards.

Part 4: Controlled fuels

This part allows the Minister or MEC to declare a substance or mixture of substances, when used as a fuel in a combustion process, as controlled fuel, and to establish standards for the use or manufacture or sale of the controlled fuel in combustion processes. This part also allows the Minister or MEC to prohibit the manufacture, sale or use of certain controlled fuel, e.g. the use of certain undesirable waste products in any combustion processes may be prohibited using this part of the Act.

Part 5: Other measures

(a) Pollution prevention plan

This regulatory measure allows the Minister or MEC to declare a substance as a priority air pollutant, and require any persons to develop and implement a pollution prevention plan in respect of the substance declared as a priority air pollutant. For example, the Minister may declare carbon dioxide, the principle greenhouse gas, as a priority air pollutant and require all industries emitting carbon dioxide to develop and implement a pollution prevention plan in respect of carbon dioxide.

(b) Atmospheric impact reports

This regulatory tool allows an air quality officer to require any person to submit an atmospheric impact report and specifies the two instances under which the report may be requested, namely, where a reasonable suspicion of contravention of the Act or licence conditions exists, or when a review of the atmospheric emission licence is undertaken.

(c) Recognition programmes

An air quality officer may establish a programme for the public recognition of significant achievements in the area of pollution prevention.

Part 6: Measures in respect of dust, noise and offensive odours

(a) Control of dust

These provisions allow the Minister or MEC to prescribe dust control measures nationally and/ or in certain problematic areas. Once prescribed, these steps must be taken by all persons involved in processes that generate dust in those problematic areas.

(b) Rehabilitation when mining operations cease

These provisions place a legal obligation on mines to inform the Minister of any imminent closure of the mining operations. The notice must be accompanied by any plans for the rehabilitation of the mining operations.

(c) *Control of noise*

These provisions allow the Minister to prescribe national standards for noise. Once prescribed, such standards also bind the provincial and local spheres of government.

(d) *Control of offensive odours*

These provisions allow the Minister or MEC to prescribe measures for the control of offensive odours and, further place a legal obligation on occupiers of any premises to take all reasonable steps to prevent the emission of any offensive odour caused by any activity on such premises.

Chapter 5

This chapter regulates the licensing of activities resulting in atmospheric emissions. It defines, with reference to section 24 of NEMA, procedures to be followed and the licensing authority responsible for issuing the atmospheric emission licence. The chapter sets out the administrative processes for both the licensing authority and applicants regarding the atmospheric emission licence. In addition, the chapter sets out the contents of the atmospheric emission licence. Furthermore, this chapter makes provision for and defines the following:

- (a) *Emission control officers*: this provision allows government to demand that qualified air quality management practitioners are employed by “problem” industries.

- (b) *Fit and proper persons*: this provision allows government to turn down licence applications from applicants who have continuously demonstrated bad air quality management practices in the past.

Chapter 6

This chapter deals with South Africa's international obligations in respect of air quality management. In keeping with the "good neighbour" aspect of NEPAD and our SADC obligations, the chapter allows the Minister to investigate cases where South African processes may be impacting on our neighbours. In this regard, the chapter also provides the Minister with the legal mandate to develop regulations in respect of the control of processes impacting on our neighbours and the global atmosphere in general.

Chapter 7

This chapter deals with offences and penalties. The Act as a whole is underpinned by the adoption of a comprehensive approach to the management of offences and penalties.

Chapter 8

This chapter deals with general matters and is divided into three parts, namely, regulations (Part 1); consultative processes (Part 2) and delegations and exemptions (Part 3).

Part 1: Regulations

These provisions provide the Minister and MEC with legal mandate to develop regulations on any air quality matters regulated in terms of the Act.

Part 2: Consultative process

These provisions require the Minister or MEC to consult relevant Cabinet members and stakeholders before exercising power in terms of the Act. In addition, the Minister or MEC is also required to give notice of the proposed exercise of power to the members of the public. Such notice must be published in the Government Gazette and in at least one newspaper distributed nationally or, if the exercise of the power will affect only a specific area, in at least one newspaper distributed in that area.

Part 3: Delegations and exemptions

This part allows the Minister or MEC to delegate certain powers in terms of the Act subject to limitations and conditions. The part also allows any person or organ of state to apply for an exemption from the application of a provision of the Act. An application can only be made to the Minister. The Act does not allow exemptions from the provisions of sections 9 (national ambient air quality standards), 22 (atmospheric emission licence) and 25 (controlled emitters).

Chapter 9

This is a miscellaneous chapter and deals with the following:

- (a) The repeal of APPA
- (b) Transitional arrangements in respect of registration certificates issued in terms of APPA
- (c) Transitional provision regarding listed activities
- (d) Transitional provision regarding national ambient air quality standards
- (e) Short title and commencement

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT 39 OF 2004

(English text signed by the President)

[Assented To: 19 February 2005]

*[Commencement Date: 11 September 2005 – unless otherwise
indicated]*

[\[GN R898 / GG 28016 / 20050909\]](#)

[\[GN 220 / GG 33041 / 20100326\]](#)

as amended by:

National Environment Laws Amendment Act 44 of 2008
[with effect from 11 September 2009 - GN 902 / GG 32563 /
20090911]

National Environment Laws Amendment Act 14 of 2009
[with effect from 18 September 2009 - Proc. 65 / GG 32580 /
20090918]

ACT

To reform the law regulating air quality in order to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.

PREAMBLE

WHEREAS the quality of ambient air in many areas of the Republic is not conducive to a healthy environment for the people living in those areas let alone promoting their social and economic advancement;

AND WHEREAS the burden of health impacts associated with polluted ambient air falls most heavily on the poor;

AND WHEREAS air pollution carries a high social, economic and environmental cost that is seldom borne by the polluter;

AND WHEREAS atmospheric emissions of ozone-depleting substances, greenhouse gases and other substances have deleterious effects on the environment both locally and globally;

AND WHEREAS everyone has the constitutional right to an environment that is not harmful to their health or well-being;

AND WHEREAS everyone has the constitutional right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –

- a) prevent pollution and ecological degradation;
- b) promote conservation; and
- c) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development;

AND WHEREAS minimisation of pollution through vigorous control, cleaner technologies and cleaner production practices is key to

ensuring that air quality is improved; And whereas additional legislation is necessary to strengthen the Government's strategies for the protection of the environment and, more specifically, the enhancement of the quality of ambient air, in order to secure an environment that is not harmful to the health or well-being of people,

BE IT THEREFORE ENACTED by the Parliament of the Republic of South Africa, as follows: -

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CHAPTER 1

INTERPRETATION AND FUNDAMENTAL PRINCIPLES

1. Definitions

- a) In this Act, unless the context indicates otherwise -

“air pollution” means any change in the composition of the air caused by smoke, soot, dust (including fly ash), cinders, solid particles of any kind, gases, fumes, aerosols and odorous substances;

“air quality management plan” means a plan referred to in [section 15](#);

“air quality officer” means an officer appointed in terms of [section 14](#) as an air quality officer;

“ambient air” excludes air regulated by the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

“atmospheric emission” or **“emission”** means any emission or entrainment process emanating from a point, non-point or mobile source that results in air pollution;

“atmospheric emission licence” means an atmospheric emission licence contemplated in [Chapter 5](#);

“Atmospheric Pollution Prevention Act” means the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965);

“controlled emitter” means any appliance or activity declared as a controlled emitter in terms of [section 23](#);

“Department” means the Department of Environmental Affairs and Tourism;

“environment” has the meaning assigned to it [section 1](#) of the National Environmental Management Act;

“Environment Conservation Act” means the Environment Conservation Act, 1989 (Act No. 73 of 1989);

“Gazette” when used in relation to -

- (a) the Minister, means the *Government Gazette*; and
- (b) the MEC, means the *Provincial Gazette* of the province concerned;

“greenhouse gas” means gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation, and includes carbon dioxide, methane and nitrous oxide;

“licensing authority” means an authority referred to in [section 36](#)(1), (2), (3) or (4) responsible for implementing the licensing system set out in [Chapter 5](#);

“listed activity” means any activity listed in terms of [section 21](#);

“MEC” means the member of the Executive Council of a province who is responsible for air quality management in the province;

“Minister” means the Minister of Environmental Affairs and Tourism;

“mobile source” means a single identifiable source of atmospheric emission which does not emanate from a fixed location;

“municipality” means a municipality established in terms of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998);

“Municipal Systems Act” means the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000);

“National Environmental Management Act” means the National Environmental Management Act, 1998 (Act No. 107 of 1998);

“national framework” means the framework established in terms of [section 7\(1\)](#);

“non-point source” means a source of atmospheric emissions which cannot be identified as having emanated from a single identifiable source or fixed location, and includes veld, forest and open fires, mining activities, agricultural activities and stockpiles;

“offensive odour” means any smell which is considered to be malodorous or a nuisance to a reasonable person;

“organ of state” has the meaning assigned to it in [section 239](#) of the Constitution;

“ozone-depleting substance” means a substance having chemical or physical properties which, by its release into the atmosphere, can cause a depletion of the stratospheric ozone layer;

“point source” means a single identifiable source and fixed location of atmospheric emission, and includes smoke stacks and residential chimneys;

“pollution” has the meaning assigned to it in [section 1](#) of the National Environmental Management Act;

“priority area” means an area declared as such in terms of [section 18](#);

“priority area air quality management plan” means a plan referred to in [section 19](#);

“provisional atmospheric emission licence” means a provisional atmospheric emission licence contemplated in [Chapter 5](#);

“this Act” includes -

- (a) the national framework;
- (b) any regulation made in terms of this Act; and
- (c) any other subordinate legislation issued in terms of this Act.

- (2) In this Act, a word or expression derived from a word or expression defined in subsection (1) has a corresponding meaning unless the context indicates that another meaning is intended.

2. Object of Act

The object of this Act is -

- (a) to protect the environment by providing reasonable measures for -
 - (i) the protection and enhancement of the quality of air in the Republic;

- (ii) the prevention of air pollution and ecological degradation; and
 - (iii) securing ecologically sustainable development while promoting justifiable economic and social development; and
- (b) generally to give effect to [section 24](#)(b) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people.

3. General duty of State

In fulfilling the rights contained in [section 24](#) of the Constitution, the State -

- (a) through the organs of state applying this Act, must seek to protect and enhance the quality of air in the Republic; and
- (b) must apply this Act in a manner that will achieve the progressive realisation of those rights.

4. Application of Act

- (1) This Act also applies to the exclusive economic zone and continental shelf of the Republic referred to in [sections 7](#) and [8](#), respectively, of the Maritime Zones Act, 1994 (Act No. 15 of 1994).
- (2) This Act binds all organs of state -

- (a) in the national and local spheres of government; and
- (b) in the provincial sphere of government, subject to [section 146](#) of the Constitution.

5. Application of National Environmental Management Act

- (1) This Act must be read with any applicable provisions of the National Environmental Management Act.
- (2) The interpretation and application of this Act must be guided by the national environmental management principles set out in [section 2](#) of the National Environmental Management Act.

6. Conflicts with other legislation

- (1) In the event of any conflict between a section of this Act and -
 - (a) provincial legislation, the conflict must be resolved in terms of [section 146](#) of the Constitution;
 - (b) a municipal by-law, the section of this Act prevails.
- (2) In the event of any conflict between subordinate legislation issued in terms of this Act and -
 - (a) an Act of Parliament, the Act of Parliament prevails;
 - (b) provincial legislation, the conflict must be resolved in terms of [section 146](#) of the Constitution; and
 - (c) a municipal by-law, the subordinate legislation issued in terms of this Act prevails.

- (3) For the proper application of subsection (2)(b) the Minister must, in terms of [section 146](#)(6) of the Constitution, submit all subordinate legislation issued in terms of this Act and which affects provinces to the National Council of Provinces for approval.

CHAPTER 2

NATIONAL FRAMEWORK AND NATIONAL, PROVINCIAL AND LOCAL STANDARDS

Part 1: National framework

7. Establishment

- (1) The Minister must, within two years of the date on which this section took effect, by notice in the *Gazette*, establish a national framework for achieving the object of this Act, which must include -
- (a) mechanisms, systems and procedures to attain compliance with ambient air quality standards;
 - (b) mechanisms, systems and procedures to give effect to the Republic's obligations in terms of international agreements;
 - (c) national norms and standards for the control of emissions from point and non-point sources;

- (d) national norms and standards for air quality monitoring;
 - (e) national norms and standards for air quality management planning;
 - (f) national norms and standards for air quality information management; and
 - (g) any other matter which the Minister considers necessary for achieving the object of this Act.
- (2) National norms and standards established in terms of subsection (1) must be aimed at ensuring -
- (a) opportunities for public participation in the protection and enhancement of air quality;
 - (b) public access to air quality information;
 - (c) the prevention of air pollution and degradation of air quality;
 - (d) the reduction of discharges likely to impair air quality, including the reduction of air pollution at source;
 - (e) the promotion of efficient and effective air quality management;
 - (f) effective air quality monitoring;
 - (g) regular reporting on air quality; and
 - (h) compliance with the Republic's obligations in terms of international agreements.
- (3) The national framework -
- (a) binds all organs of state in all spheres of government; and

- (b) may assign and delineate responsibilities for the implementation of this Act amongst -
 - (i) the different spheres of government; and
 - (ii) different organs of state.
- (4) An organ of state must give effect to the national framework when exercising a power or performing a duty in terms of this Act or any other legislation regulating air quality management.
- (5) The national framework -
 - (a) may differentiate between different geographical areas;
 - (b) may provide for the phasing in of its provisions;
 - (c) may be amended; and
 - (d) must be reviewed by the Minister at intervals of not more than five years.
- (6) (a) Before publishing the national framework, or any amendment to the framework, the Minister must follow a consultative process in accordance with [sections 56](#) and [57](#).
- (b) Paragraph (a) need not be complied with if the framework is amended in a non-substantive way.

8. National monitoring and information management standards

The national framework must establish national standards for -

- (a) municipalities to monitor -
 - (i) ambient air quality; and
 - (ii) point, non-point and mobile source emissions;

- (b) provinces to monitor -
 - (i) ambient air quality; and
 - (ii) the performance of municipalities in implementing this Act; and

- (c) the collection and management of data necessary to assess-
 - (i) compliance with this Act;
 - (ii) compliance with ambient air quality and emission standards;
 - (iii) the performance of organs of state in respect of air quality management plans and priority area air quality management plans;
 - (iv) the impact of, and compliance with, air quality management plans and priority area air quality management plans;
 - (i) compliance with the Republic's obligations in terms of international agreements; and
 - (vi) access to information by the public.

Part 2: National, provincial and local ambient air quality and emission standards

9. National standards

- (1) The Minister, by notice in the *Gazette* -
 - (a) must identify substances or mixtures of substances in ambient air which, through ambient concentrations, bioaccumulation, deposition or in any other way, present a threat to health, well-being or the environment or which the Minister reasonably believes present such a threat; and
 - (b) must, in respect of each of those substances or mixtures of substances, establish national standards for ambient air quality, including the permissible amount or concentration of each such substance or mixture of substances in ambient air; and
 - (c) may, in respect of each of those substances or mixtures of substances, establish national standards for emissions from point, non-point or mobile sources.
- (2) [Section 7](#)(3)(a), (4), (5) and (6), with the necessary changes as the context may require, apply to a notice published in terms of this section.

10. Provincial standards

- (1) The MEC may, by notice in the *Gazette* -
 - (a) identify substances or mixtures of substances in ambient air which, through ambient concentrations, bioaccumulation, deposition or in any other way, present a threat to health, well-being or the

- environment in the province or which the MEC reasonably believes present such a threat; and
- (b) in respect of each of those substances or mixtures of substances, establish provincial standards for -
 - (i) ambient air quality, including the permissible amount or concentration of each such substance or mixture of substances in ambient air; or
 - (ii) emissions from point, non-point or mobile sources in the province or in any geographical area within the province.
- (2) If national standards have been established in terms of [section 9](#) for any particular substance or mixture of substances, the MEC may not alter any such national standards except by establishing stricter standards for the province or for any geographical area within the province.
- (3) A notice issued under this section may -
- (a) differentiate between different geographical areas within the province;
 - (b) provide for the phasing in of its provisions; and
 - (c) be amended.
- (4) (a) Before publishing a notice in terms of this section, or any amendment to the notice, the MEC must follow a consultative process in accordance with [sections 56](#) and [57](#).

- (b) Paragraph (a) need not be complied with if the notice is amended in a non-substantive way.

11. Local standards

- (1) A municipality may in terms of a by-law -
 - (a) identify substances or mixtures of substances in ambient air which, through ambient concentrations, bioaccumulation, deposition or in any other way, present a threat to health, well-being or the environment in the municipality or which the municipality reasonably believes present such a threat; and
 - (b) in respect of each of those substances or mixtures of substances, establish local standards for emissions from point, non-point or mobile sources in the municipality.
- (2) If national or provincial standards have been established in terms of [section 9](#) or [10](#) for any particular substance or mixture of substances, a municipality may not alter any such national or provincial standards except by establishing stricter standards for the municipality or any part of the municipality.
- (3) A notice issued under this section may -
 - (a) provide for the phasing in of its provisions; and
 - (b) be amended.

- (4) Before a municipality passes a by-law referred to in subsection (1), it must follow a consultative process in terms of [Chapter 4](#) of the Municipal Systems Act.

Part 3: General

12. Ambient air quality and emission measurements

For the purpose of this Chapter, the Minister must prescribe the manner in which -

- (a) ambient air quality measurements must be carried out;
- (b) measurements of emissions from point, non-point or mobile sources must be carried out; and
- (c) the form in which such measurements must be reported and the organs of state to whom such measurements must be reported.

CHAPTER 3

INSTITUTIONAL AND PLANNING MATTERS

13. National Air Quality Advisory Committee

- (1) The Minister may establish a National Air Quality Advisory Committee as a subcommittee of the National Environmental Advisory Forum, established in terms of the National Environmental Management Act, to advise the Minister on the implementation of this Act.

- (2) When establishing the Committee, the Minister -
 - (a) must determine the composition of the Committee, including the appointment, tenure and termination of service of members of the Committee;
 - (b) must determine the conditions of appointment of members of the Committee;
 - (c) must determine the functions and functioning of the Committee; and
 - (d) may determine any other matter relating to the Committee

14. Appointment of air quality officers

- (1) The Minister must designate an officer in the Department as the national air quality officer to be responsible for co-ordinating matters pertaining to air quality management in the national government.
- (2) The MEC must designate an officer in the provincial administration as the provincial air quality officer to be responsible for co-ordinating matters pertaining to air quality management in the province.
- (3) Each municipality must designate an air quality officer from its administration to be responsible for co-ordinating matters pertaining to air quality management in the municipality.
- (4) (a) An air quality officer must perform the duties or exercise the powers assigned or delegated to that

officer in terms of this Act.

- (b) An air quality officer may delegate a power or assign a duty to an official in the service of that officer's administration, subject to such limitations or conditions as may be prescribed by the Minister.
- (5) Air quality officers must co-ordinate their activities in such a manner as may be set out in the national framework or prescribed by the Minister.

15. Air quality management plans

- (1) Each national department or province responsible for preparing an environmental implementation plan or environmental management plan in terms of [Chapter 3](#) of the National Environmental Management Act must include in that plan an air quality management plan.
- (2) Each municipality must include in its integrated development plan contemplated in [Chapter 5](#) of the Municipal Systems Act, an air quality management plan.

16. Contents of air quality management plans

- (1) An air quality management plan must -
 - (a) within the domain of the relevant national department, province or municipality, seek -

- (i) to give effect, in respect of air quality, to [Chapter 3](#) of the National Environmental Management Act to the extent that that Chapter is applicable to it;
 - (ii) to improve air quality;
 - (iii) to identify and reduce the negative impact on human health and the environment of poor air quality;
 - (iv) to address the effects of emissions from the use of fossil fuels in residential applications;
 - (v) to address the effects of emissions from industrial sources;
 - (vi) to address the effects of emissions from any point or non- point source of air pollution other than those contemplated in subparagraph (iii) or (iv);
 - (vii) to implement the Republic's obligations in respect of international agreements; and
 - (viii) to give effect to best practice in air quality management;
- (b) describe how the relevant national department, province or municipality will give effect to its air quality management plan; and
 - (c) comply with such other requirements as may be prescribed by the Minister.

17. Reporting on implementation of air quality management plans

The annual report which an organ of state must submit in terms of [section 16\(1\)\(b\)](#) of the National Environmental Management Act must contain information on the implementation of its air quality management plan, including information on -

- (a) air quality management initiatives undertaken by it during the reporting period;
- (b) the level of its compliance with ambient air quality standards;
- (c) measures taken by it to secure compliance with those standards;
- (d) its compliance with any priority area air quality management plans applicable to it; and
- (e) its air quality monitoring activities

CHAPTER 4

AIR QUALITY MANAGEMENT MEASURES

Part 1: Priority areas

18. Declaration of priority areas

- (1) The Minister or MEC may, by notice in the *Gazette*, declare an area as a priority area if the Minister or MEC reasonably believes that -
 - (a) ambient air quality standards are being, or may be, exceeded in the area, or any other situation exists

- which is causing, or may cause, a significant negative impact on air quality in the area; and
- (b) the area requires specific air quality management action to rectify the situation.
- (2) The Minister may act under subsection (1), if -
- (a) the negative impact on air quality in the area -
- (i) affects the national interest; or
- (ii) is contributing, or is likely to contribute, to air pollution in another country;
- (b) the area extends beyond provincial boundaries; or
- (c) the area falls within a province and the province requests the Minister to declare the area as a priority area.
- (3) The MECs of two or more adjoining provinces may by joint action in terms of subsection (1) declare an area falling within those provinces as a priority area.
- (4) Before publishing a notice in terms of subsection (1), the Minister or the relevant MEC or MECs must follow a consultative process in accordance with [sections 56](#) and [57](#).
- (5) The Minister or MEC may, by notice in the *Gazette*, withdraw the declaration of an area as a priority area if the area is in compliance with ambient air quality standards for a period of at least two years.

19. Management of priority areas

- (1) If the Minister has in terms of [section 18](#) declared an area as a priority area, the national air quality officer must -
 - (a) after consulting the air quality officers of any affected province and municipality, prepare a priority area air quality management plan for the area; and
 - (b) within six months of the declaration of the area, or such longer period as the Minister may specify, submit the plan to the Minister for approval.
- (2) If the MEC has in terms of [section 18](#) declared an area as a priority area, the air quality officer of the relevant province must -
 - (a) after consulting the national air quality officer and the air quality officer of any affected municipality, prepare a priority area air quality management plan for the area; and
 - (b) within six months of the declaration of the area, or such longer period as the MEC may specify, submit the plan to the MEC for approval.
- (3) If the MECs in two or more adjoining provinces have by joint action in terms of [section 18](#) declared an area as a priority area, the air quality officers of the relevant provinces must jointly -

- (a) after consulting the national air quality officer and the air quality officers of the affected municipalities, prepare a priority area air quality management plan for the area; and
 - (b) within six months of the declaration of the area, or such longer period as the relevant MECs may specify, submit the plan to the MECs for approval.
- (4) Before approving a priority area air quality management plan, the Minister or the relevant MEC or MECs -
 - (a) must follow a consultative process in accordance with [sections 56](#) and [57](#);
 - (b) may require the relevant air quality officer to amend the plan within a period determined by the Minister or the relevant MEC or MECs.
- (5)
 - (a) The Minister or the relevant MEC or MECs must publish an approved plan in the *Gazette* within 90 days of approval.
 - (b) The approved plan takes effect from the date of its publication.
- (6) A priority area air quality management plan must -
 - (a) be aimed at co-ordinating air quality management in the area;
 - (b) address issues related to air quality in the area; and

- (c) provide for the implementation of the plan by a committee representing relevant role-players.
- (7) A priority area air quality management plan lapses when the declaration of the area as a priority area is withdrawn in terms of [section 18](#)(5).

20. Regulations for implementing and enforcing priority area air quality management plans

The Minister or MEC may prescribe regulations necessary for implementing and enforcing approved priority area air quality management plans, including -

- (a) funding arrangements;
- (b) measures to facilitate compliance with such plans;
- (c) penalties for any contravention of or any failure to comply with such plans; and
- (d) regular review of such plans.

Part 2: Listing of activities resulting in atmospheric emissions

21. Listing of activities

(Commencement date of s. 21: 1 April 2010)

- (1) The Minister must, or the MEC may, by notice in the *Gazette* -
 - (a) publish a list of activities which result in atmospheric emissions and which the Minister or MEC reason-

ably believes have or may have a significant detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage; and

- (b) when necessary, amend the list by -
 - (i) adding to the list activities in addition to those contemplated in paragraph (a);
 - (ii) removing activities from the list; or
 - (iii) making other changes to particulars on the list.

- (2) A list published by the Minister applies nationally and a list published by the MEC applies to the relevant province only.

- (3) A notice referred to in subsection (1) -
 - (a) must establish minimum emission standards in respect of a substance or mixture of substances resulting from a listed activity and identified in the notice, including-
 - (i) the permissible amount, volume, emission rate or concentration of that substance or mixture of substances that may be emitted; and
 - (ii) the manner in which measurements of such emissions must be carried out;

- (b) may contain transitional and other special arrangements in respect of activities which are carried out at the time of their listing; and
 - (c) must determine the date on which the notice takes effect.
- (4)
- (a) Before publishing a notice in terms of subsection (1) or any amendment to the notice, the Minister or MEC must follow a consultative process in accordance with [sections 56](#) and [57](#).
 - (c) Paragraph (a) need not be complied with if the notice is amended in a non-substantive way.

22. Consequences of listing

(Commencement date of s. 22: 1 April 2010)

No person may without a provisional atmospheric emission licence or an atmospheric emission licence conduct an activity -

- (a) listed on the national list anywhere in the Republic; or
- (b) listed on the list applicable in a province anywhere in that province.

Part 3: Controlled emitters

23. Controlled emitters

- (1) The Minister or MEC may, by notice in the *Gazette*, declare any appliance or activity, or any appliance or activity falling within a specified category, as a controlled emitter if such appliance or activity, or appliances or activities falling within such category, result in atmospheric emissions which through ambient concentrations, bioaccumulation, deposition or in any other way, present a threat to health or the environment or which the Minister or MEC reasonably believes presents such a threat.
- (2) Before publishing a notice in terms of subsection (1) or any amendment to the notice, the Minister or MEC must -
 - (a) follow a consultative process in accordance with [sections 56](#) and [57](#);
 - (b) apply the precautionary principle contained in [section 2\(4\)\(a\)\(vii\)](#) of the National Environmental Management Act;
 - (c) take into account the Republic's obligations in terms of any applicable international agreement; and
 - (d) consider -
 - (i) any sound scientific information; and
 - (ii) any risk assessments.
- (3) Subsection (2) need not be complied with if the notice is amended in a non-substantive way.

24. Standards for controlled emitters

- (1) A notice contemplated in [section 23](#)(1) must establish emission standards, which must include standards setting the permissible amount, volume, emission rate or concentration of any specified substance or mixture of substances that may be emitted from the controlled emitter.
- (2) The Minister must prescribe the manner in which measurements of emissions from controlled emitters must be carried out.

25. Consequences of declaration

- (1) No person may manufacture, sell or use any appliance or conduct an activity declared as a controlled emitter unless that appliance or activity complies with the standards established in terms of [section 24](#).
- (2) Subsection (1) applies -
 - (a) nationwide in respect of an appliance or activity declared by the Minister; or
 - (b) in a relevant province only in respect of an appliance or activity declared by the MEC responsible for air quality in that province.

Part 4: Controlled fuels

26. Controlled fuels

- (1) The Minister or MEC may, by notice in the *Gazette*, declare a substance or mixture of substances which, when used as a fuel in a combustion process, result in atmospheric emissions which through ambient concentrations, bio-accumulation, deposition or in any other way, present a threat to health or the environment or which the Minister or MEC reasonably believes present such a threat, as a controlled fuel.
- (2) Before publishing a notice in terms of subsection (1) or any amendment to the notice, the Minister or MEC must -
 - (a) follow a consultative process in accordance with [sections 56](#) and [57](#);
 - (b) apply the precautionary principle contained in [section 2\(4\)\(a\)\(vii\)](#) of the National Environmental Management Act;
 - (c) take into account the Republic's obligations in terms of any applicable international agreement; and
 - (d) consider -
 - (i) any sound scientific information; and
 - (ii) any risk assessments.
- (3) Subsection (2) need not be complied with if the notice is amended in a non-substantive way.

27. Use and prohibition of controlled fuels

A notice contemplated in [section 26](#)(1) may -

- (a) establish standards for the use of the controlled fuel in combustion processes;
- (b) establish standards for the manufacture or sale of the controlled fuel;
- (c) establish specifications, including maximum or minimum levels or concentrations of the constituents of substances or mixtures of substances, for the composition of controlled fuels;
- (d) prohibit the manufacture, sale or use of the controlled fuel;
- (e) differentiate between different geographical areas;
- (f) provide for the phasing in of its provisions; and
- (g) be amended.

28. Consequences of declaration

- (1) No person may manufacture, sell or use a controlled fuel unless that manufacture, sale or use complies with the standards established in terms of [section 27](#).
- (2) No person may manufacture, sell or use a prohibited controlled fuel unless that manufacture, sale or use complies with any conditions of manufacture, sale or use established in terms of [section 27](#).
- (3) Subsections (1) and (2) apply -

- (a) nationwide in respect of a substance or mixture of substances declared by the Minister; or
- (b) in a relevant province only in respect of a substance or mixture of substances declared by the MEC responsible for air quality in that province.

Part 5: Other measures

29. Pollution prevention plans

- (1) The Minister or MEC may, by notice in the *Gazette* -
 - (a) declare any substance contributing to air pollution as a priority air pollutant; and
 - (b) require persons falling within a category specified in the notice to prepare, submit to the Minister or MEC for approval, and implement pollution prevention plans in respect of a substance declared as a priority air pollutant in terms of paragraph (a).
- (2) The Minister or MEC may, by written notice to a person conducting a listed activity which involves the emission of a substance declared as a priority air pollutant, require that person to prepare, submit to the Minister or MEC for approval and implement a pollution prevention plan, whether or not that person falls within a category specified in terms of subsection (1)(b).
- (3) Pollution prevention plans must comply with such requirements as may be prescribed by the Minister or MEC.

30. Atmospheric impact reports

An air quality officer may require any person to submit to the air quality officer an atmospheric impact report in a prescribed form if -

- (a) the air quality officer reasonably suspects that the person has on one or more occasions contravened or failed to comply with this Act or any conditions of a licence and that such contravention or failure has had, or may have, a detrimental effect on the environment, including health, social conditions, economic conditions, ecological conditions or cultural heritage, or has contributed to the degradation of ambient air quality; or
- (b) a review of a provisional atmospheric emission licence or an atmospheric emission licence is undertaken in terms of [section 45](#).

31. Recognition programmes

An air quality officer may establish a programme for the public recognition of significant achievements in the area of pollution prevention.

Part 6: Measures in respect of dust, noise and offensive odours

32. Control of dust

The Minister or MEC may prescribe -

- (a) measures for the control of dust in specified places or areas, either in general or by specified machinery or in specified instances;
- (b) steps that must be taken to prevent nuisance by dust; or
- (c) other measures aimed at the control of dust.

33. Rehabilitation when mining operations cease

If it is determined that a mine, having regard to its known ore reserves, is likely to cease mining operations within a period of five years, the owner of that mine must promptly notify the Minister in writing -

- (a) of the likely cessation of those mining operations; and
- (b) of any plans that are in place or in contemplation for-
 - (i) the rehabilitation of the area where the mining operations were conducted after mining operations have stopped; and
 - (ii) the prevention of pollution of the atmosphere by dust after those operations have stopped.

34. Control of noise

- (1) The Minister may prescribe essential national standards -

- (a) for the control of noise, either in general or by specified machinery or activities or in specified places or areas; or
 - (b) for determining -
 - (i) a definition of noise; and
 - (ii) the maximum levels of noise.
- (2) When controlling noise the provincial and local spheres of government are bound by any prescribed national standards.

35. Control of offensive odours

- (1) The Minister or MEC may prescribe measures for the control of offensive odours emanating from specified activities.
- (2) The occupier of any premises must take all reasonable steps to prevent the emission of any offensive odour caused by any activity on such premises.

CHAPTER 5

LICENSING OF LISTED ACTIVITIES

36. Licensing authority

(Commencement date of s. 36: 1 April 2010)

- (1) Metropolitan and district municipalities are charged with implementing the atmospheric emission licensing system referred to in [section 22](#), and must for this purpose perform the functions of licensing authority as set out in this Chapter and other provisions of this Act, subject to subsections (2), (3) and (4).
- (2) If a metropolitan or district municipality has delegated its functions of licensing authority to a provincial organ of state in terms of [section 238](#) of the Constitution, that provincial organ of state must for the purposes of this Act be regarded as the licensing authority in the area of that municipality.
- (3) If the MEC has in terms of [section 139](#) of the Constitution intervened in a metropolitan or district municipality on the ground that that municipality cannot or does not fulfil its obligations as licensing authority in terms of this Act, a provincial organ of state designated by the MEC must for the duration of the intervention be regarded as the licensing authority in the area of that municipality.
- (4) If a municipality applies for an atmospheric emission licence, a provincial organ of state designated by the MEC must be regarded as the licensing authority for the purpose of -
 - (a) that application; and
 - (b) the implementation of this Act in relation to any licence that may be issued to the municipality.

37. Application for atmospheric emission licences

(Commencement date of s. 37: 1 April 2010)

- (1) A person must apply for an atmospheric emission licence by lodging with the licensing authority of the area in which the listed activity is or is to be carried out, an application in the form required by the licensing authority.
- (2) An application for an atmospheric emission licence must be accompanied by -
 - (a) the prescribed processing fee; and
 - (b) such documentation and information as may be required by the licensing authority.

38. Procedure for licence applications

(Commencement date of s. 38: 1 April 2010)

- (1) The licensing authority -
 - (a) may, to the extent that it is reasonable to do so, require the applicant, at the applicant's expense, to obtain and provide it by a given date with other information, in addition to the information contained in or submitted in connection with the application;
 - (b) may conduct its own investigation on the likely effect of the proposed licence on air quality;

- (c) may invite written comments from any organ of state which has an interest in the matter; and
 - (d) must afford the applicant an opportunity to make representations on any adverse statements or objections to the application.
- (2) [Section 24](#) of the National Environmental Management Act and [section 22](#) of the Environment Conservation Act apply to all applications for atmospheric emission licences, and both an applicant and the licensing authority must comply with those sections and any applicable notice issued or regulation made in relation to those sections.
- (3) (a) An applicant must take appropriate steps to bring the application to the attention of relevant organs of state, interested persons and the public.
- (b) Such steps must include the publication of a notice in at least two newspapers circulating in the area in which the listed activity applied for is or is to be carried out -
- (i) describing the nature and purpose of the licence applied for;
 - (ii) giving particulars of the listed activity, including the place where it is or is to be carried out;
 - (iii) stating a reasonable period within which written representations on or objections to the application may be submitted, and the

- (iv) address or place where representations or objections must be submitted; and containing such other particulars as the licensing authority may require.

39. Factors to be taken into account by licensing authorities

(Commencement date of s. 39: 1 April 2010)

When considering an application for an atmospheric emission licence, the licensing authority must take into account all relevant matters, including -

- (a) any applicable minimum standards set for ambient air and point source emissions that have been determined in terms of this Act;
- (b) the pollution being or likely to be caused by the carrying out of the listed activity applied for and the effect or likely effect of that pollution on the environment, including health, social conditions, economic conditions, cultural heritage and ambient air quality;
- (c) the best practicable environmental options available that could be taken -
 - (i) to prevent, control, abate or mitigate that pollution; and
 - (ii) to protect the environment, including health, social conditions, economic conditions,

cultural heritage and ambient air quality,
from harm as a result of that pollution;

- (d) [section 24](#) of the National Environmental Management Act and [section 22](#) of the Environment Conservation Act and any applicable notice issued or regulation made pursuant to those sections;
- (e) any relevant tradable emission scheme;
- (f) whether the applicant is a fit and proper person as contemplated in [section 49](#);
- (g) the applicant's submissions;
- (h) any submissions from organs of state, interested persons and the public; and
- (i) any guidelines issued by the Minister or MEC relating to the performance by licensing authorities of their functions.

40. Decisions of licensing authority

(Commencement date of s. 40: 1 April 2010)

- (1) The licensing authority may -
 - (a) grant an application; or
 - (b) refuse an application.

- (2) Any decision by a licensing authority to grant an application must be consistent with -
- (a) this Act and any other applicable national or provincial legislation;
 - (b) any applicable national or provincial environmental management policies;
 - (c) [section 24](#) of the National Environmental Management Act and [section 22](#) of the Environment Conservation Act and any applicable notice issued or regulation made pursuant to those sections;
 - (d) the national environmental management principles set out in [section 2](#) of the National Environmental Management Act;
 - (e) any transitional and other special arrangements contemplated in [section 21\(3\)\(b\)](#);
 - (f) any minimum standards for atmospheric emissions of identified substances or mixtures of substances as contemplated in [section 21\(3\)](#);
 - (g) any applicable pollution prevention plan contemplated in [section 29](#);
 - (h) the objectives of any applicable air quality management plan; and

- (i) any ambient air quality or emission standards that have been determined in terms of this Act.
- (3) If an authorisation notice is issued in terms of [section 24](#) of the National Environmental Management Act or [section 22](#) of the Environment Conservation Act in respect of an application, the licensing authority must decide the application within 60 days of the date on which the notice has been issued.
- (4) After a licensing authority has reached a decision in respect of a licence application, it must within 30 days -
 - (a) notify the applicant of the decision, and give written reasons if the application was unsuccessful;
 - (b) in a manner determined by the licensing authority, notify any persons who have objected to the application; and
 - (c) at the request of any person contemplated in paragraph (b), give written reasons for its decision or make public its reasons.

41. Successful applications

(Commencement date of s. 41: 1 April 2010)

- (1) If an application for an atmospheric emission licence has been granted in terms of [section 40\(1\)\(a\)](#), the licensing authority must first issue a provisional atmospheric

emission licence to enable the commissioning of the listed activity.

- (2) A provisional atmospheric emission licence is subject to such conditions and requirements -
 - (a) as the licensing authority may determine; and
 - (b) as the Minister or MEC has prescribed for listed activities of the kind in question.

42. Issuing of atmospheric emission licences

(Commencement date of s. 42: 1 April 2010)

- (1) The holder of a provisional atmospheric emission licence is entitled to an atmospheric emission licence when the commissioned facility has been in full compliance with the conditions and requirements of the provisional atmospheric emission licence for a period of at least six months.
- (2) An atmospheric emission licence is subject to such conditions and requirements -
 - (a) as are specified in terms of [section 43](#);
 - (b) as the licensing authority may determine; and
 - (c) as the Minister or MEC has prescribed for listed activities of the kind in question.

43. Contents of provisional atmospheric emission licences and atmospheric emission licences

(Commencement date of s. 43: 1 April 2010)

- (1) A provisional atmospheric emission licence and an atmospheric emission licence must specify -
 - (a) the activity in respect of which it is issued;
 - (b) the premises in respect of which it is issued;
 - (c) the person to whom it is issued;
 - (d) the period for which the licence is issued;
 - (e) the name of the licensing authority;
 - (f) the periods at which the licence may be reviewed;
 - (g) the maximum allowed amount, volume, emission rate or concentration of pollutants that may be discharged in the atmosphere -
 - (i) under normal working conditions; and
 - (ii) under normal start-up, maintenance and shut-down conditions;
 - (h) any other operating requirements relating to atmospheric discharges, including non-point source or fugitive emissions;
 - (i) point source emission measurement and reporting requirements;

- (j) on-site ambient air quality measurement and reporting requirements;
 - (k) penalties for non-compliance;
 - (l) greenhouse gas emission measurement and reporting requirements; and
 - (m) any other matters which are necessary for the protection or enforcement of air quality.
- (2) A licence may -
- (a) specify conditions in respect of odour and noise;
 - (b) require the holder of the licence to comply with all lawful requirements of an environmental management inspector carrying out his or her duties in terms of the National Environmental Management Act, including a requirement that the holder of the licence must, on request, submit to the inspector a certified statement indicating -
 - (i) the extent to which the conditions and requirements of the licence have or have not been complied with;
 - (ii) particulars of any failure to comply with any of those conditions or requirements;
 - (iii) the reasons for any failure to comply with any of those conditions or requirements; and

- (iv) any action taken, or to be taken, to prevent any recurrence of that failure or to mitigate the effects of that failure.

44. Transfer of provisional atmospheric emission licences and atmospheric emission licences

(Commencement date of s. 44: 1 April 2010)

- (1) If ownership of an activity for which a provisional atmospheric emission licence or an atmospheric emission licence was issued is transferred, the licence may, with the permission of a licensing authority, be transferred by the holder of the licence to the new owner of the activity.
- (2)
 - (a) A person applying for permission for the transfer of a licence must lodge the application with the licensing authority of the area in which the listed activity is carried out.
 - (b) The application must be in the form required by the licensing authority.
- (3) An application for the transfer of a licence must be accompanied by -
 - (a) the prescribed processing fee; and
 - (b) such documentation and information as may be required by the licensing authority.

- (4) (a) An applicant must take appropriate steps to bring the application for the transfer of an atmospheric emission licence to the attention of interested persons and the public.
- (b) Such steps must include the publication of a notice in at least two newspapers circulating in the area in which the listed activity applied for is carried out -
- (i) describing the reasons for the transfer of an atmospheric emission licence;
 - (ii) giving particulars of the listed activity, including the place where it is carried out;
 - (iii) stating a reasonable period within which written representations on or objections to the application may be submitted, and the address or place where representations or objections must be submitted; and
 - (iv) containing such other particulars as the licensing authority may require.
- (5) When considering an application for the transfer of a licence, the licensing authority must take into account all relevant matters, including whether the person to whom the licence is to be transferred is a fit and proper person as contemplated in [section 49](#).

45. Review of provisional atmospheric emission licences and atmospheric emission licences

(Commencement date of s. 45: 1 April 2010)

- (1) A licensing authority must review a provisional atmospheric emission licence or an atmospheric emission licence at intervals specified in the licence, or when circumstances demand that a review is necessary, on payment of the prescribed processing fee.
[Subs. (1) substituted by s. 48 of Act 14/2009]
- (2) The licensing authority must inform the licence holder and the relevant provincial air quality officer, in writing, of any proposed review, the reason for such review and the cost of the prescribed processing fee.
[Subs. (2) substituted by s. 48 of Act 14/2009]
- (3) For purposes of the review, an air quality officer may require the licence holder to compile and submit an atmospheric impact report contemplated in [section 30](#).

46. Variation of provisional atmospheric emission licences and atmospheric emission licences

(Commencement date of s. 46: 1 April 2010)

- (1) A licensing authority may, by written notice to the holder of a provisional atmospheric emission licence or an atmospheric emission licence, vary the licence -
 - (a) if it is necessary or desirable to prevent deterioration of ambient air quality;

- (b) if it is necessary or desirable for the purposes of achieving ambient air quality standards;
 - (c) if it is necessary or desirable to accommodate demands brought about by impacts on socio-economic circumstances and it is in the public interest to meet those demands;
 - (d) at the written request of the holder of the licence;
 - (e) if it is transferred to another person in terms of [section 44](#); or
 - (f) if it is reviewed in terms of [section 45](#).
- (2) The variation of a licence includes –
- (a) the attaching of an additional condition or requirement to the licence;
 - (b) the substitution of a condition or requirement;
 - (c) the removal of a condition or requirement; or
 - (d) the amendment of a condition or requirement.
- (3) If a licensing authority receives a request from the holder of a licence in terms of subsection (1)(d), the licensing authority must require the holder of the licence to take appropriate steps to bring the request to the attention of

relevant organs of state, interested persons and the public if -

- (a) the variation of the licence will authorise an increase in the environmental impact regulated by the licence;
 - (b) the variation of the licence will authorise an increase in atmospheric emissions; and
 - (c) the proposed variation has not, for any reason, been the subject of an authorisation in terms of any other legislation and public consultation.
- (4) Steps in terms of subsection (3) must include the publication of a notice in at least two newspapers circulating in the area in which the listed activity authorised by the licence is, or will be, carried out -
- (a) describing the nature and purpose of the request;
 - (b) giving particulars of the listed activity, including the place where it is or will be carried out;
 - (c) stating a reasonable period within which written representations on or objections to the request may be submitted, and the address or place where representations or objections must be submitted; and
 - (d) containing such other particulars as the licensing authority may require.

- (5) [Sections 38](#) and [40](#), read with the necessary changes as the context may require, apply to the variation of a licence.

47. Renewal of provisional atmospheric emission licences and atmospheric emission licences

(Commencement date of s. 47: 1 April 2010)

- (1) A provisional atmospheric emission licence or an atmospheric emission licence may, on application by the holder of the licence, be renewed by a licensing authority.
- (2) The holder of a licence must before the expiry date of the licence apply for the renewal of the licence to the licensing authority of the area in which the listed activity is carried out, by lodging to the licensing authority an application in the form required by the licensing authority.
- (3) An application for the renewal of a licence must be accompanied by -
 - (a) the prescribed processing fee;
 - (b) proof that the relevant provincial air quality officer has been notified of the application; and
 - (c) such documentation and information as may be required by the licensing authority.

- (4) The holder of a provisional atmospheric emission licence may not apply for the renewal of the provisional licence more than once.
- (5) [Sections 38, 40](#) and [43](#), read with the necessary changes as the context may require, apply to an application for the renewal of a licence.

48. Emission control officers

(Commencement date of s. 48: 1 April 2010)

- (1) An air quality officer may require the holder of a provisional atmospheric emission licence or an atmospheric emission licence to designate an emission control officer, having regard to the size and nature of the listed activity for which the licence was granted.
- (2) An emission control officer must have requisite air quality management competence in respect of the listed activity in question, and must –
 - (a) work towards the development and introduction of cleaner production technologies and practices;
 - (b) take all reasonable steps to ensure compliance by the holder of the licence with the licence conditions and requirements; and
 - (c) promptly report any non-compliance with any licence conditions or requirements to the licensing authority

through the most effective means reasonably available.

- (3) Nothing in this section affects the obligations and liability of the holder of a licence to comply with the conditions and requirements of the licence.

49. Criteria for fit and proper persons

(Commencement date of s. 49: 1 April 2010)

In order to determine whether a person is a fit and proper person for the purposes of an application in terms of this Chapter, a licensing authority must take into account all relevant facts, including whether -

- (a) that person has contravened or failed to comply with this Act, the Atmospheric Pollution Prevention Act or any other legislation applicable to air quality;
- (b) that person has held a provisional atmospheric emission licence, an atmospheric emission licence or other authority that has been suspended or revoked;
- (c) that person has been a director or senior manager who is or was a director or manager of a company, a juristic person or firm to whom paragraph (a) or (b) applies; and
[Para. (c) substituted by s. 49 of Act 14/2009]

- (d) the management of the listed activity which is the subject of the application will or will not be in the hands of a technically competent person.

CHAPTER 6

INTERNATIONAL AIR QUALITY MANAGEMENT

50. Transboundary air pollution

- (1) The Minister may investigate any situation which creates, or may reasonably be anticipated to contribute to -
 - (a) air pollution across the Republic's boundaries; or
 - (b) air pollution that violates, or is likely to violate, an international agreement binding on the Republic in relation to the prevention, control or correction of pollution.
- (2) If the investigation contemplated in subsection (1) reveals that the release of a substance into the air from a source in the Republic may have a significant detrimental impact on air quality, the environment or health in a country other than the Republic, the Minister may prescribe measures to prevent, control or correct the releases within the Republic.
- (3) Before publishing regulations under subsection (2), the Minister must consult with -

- (a) the Cabinet member responsible for foreign affairs;
and
 - (b) the MEC concerned.
- (4) Regulations contemplated in subsection (2) may include provisions regarding -
- (a) the quantity or concentration of the substance that may be released into the air;
 - (b) the manner in which and conditions under which the substance may be released into the air, either alone or in combination with any other substance;
 - (c) the maintenance of records for the administration of any regulation made under this section;
 - (d) the conduct of sampling, analyses, tests, measurements or monitoring of the substance and the submission of the results to the Minister; and
 - (e) the conditions, test procedures and laboratory practices to be followed for conducting sampling, analyses, tests, measurements or monitoring of the substance.
- (5) The Minister may, through the Cabinet member responsible for foreign affairs, advise the government of any country that would be affected by or benefit from the regulation before it is published.

CHAPTER 7

OFFENCES AND PENALTIES

51. Offences

- (1) A person is guilty of an offence if that person -
 - (a) contravenes a provision of [section 22](#), [25](#) or [35](#)(2);
 - (b) fails to submit or to implement a pollution prevention plan as required by [section 29](#)(1)(b) or (2);
 - (c) fails to submit an atmospheric impact report required in terms of [section 30](#);
 - (d) fails to notify the Minister as required by [section 33](#);
 - (e) [\(Commencement date of para. \(e\): 1 April 2010\)](#) contravenes or fails to comply with a condition or requirement of an atmospheric emission licence;
 - (f) [\(Commencement date of para. \(f\): 1 April 2010\)](#) supplies false or misleading information in any application for an atmospheric emission licence, or for the transfer, variation or renewal of such a licence;
 - (g) supplies false or misleading information to an air quality officer;

- (h) contravenes or fails to comply with a condition subject to which exemption from a provision of this Act was granted in terms of [section 59](#).
- (2) A person operating a controlled emitter is guilty of an offence if the emissions from that controlled emitter do not comply with the standards established under [section 24\(1\)](#).
- (3) [\(Commencement date of subs. \(3\): 1 April 2010\)](#)
A person performing a listed activity is guilty of an offence if air pollutants at concentrations above the emission limits, specified in an atmospheric emission licence, are emitted as a result of that activity.

52. Penalties

- (1) A person convicted of an offence referred to in [section 51](#) is liable to a fine not exceeding five million rand, or to imprisonment for a period not exceeding five years and in the case of a second or subsequent conviction, to a fine not exceeding R10 million or imprisonment for a period not exceeding 10 years or in both instances to both a fine and such imprisonment.
[Subs. (1) substituted by s. 50 of Act 14/2009]
- (2) A fine contemplated in subsection (1) must be determined with due consideration of-
 - (a) the severity of the offence in terms of its impact, or potential impact, on health, well-being, safety and the environment;

- (b) the monetary or other benefits which accrued to the convicted person through the commission of the offence; and
 - (c) the extent of the convicted person's contribution to the overall pollution load of the area under normal working conditions.
[Subs. (2) substituted by s. 50 of Act 14/2009]
- (3) Notwithstanding anything to the contrary in any other law, a magistrate's court shall have jurisdiction to impose any penalty prescribed by this Act.
[Subs. (3) added by s. 50 of Act 14/2009]

CHAPTER 8

GENERAL MATTERS

Part 1: Regulations

53. Regulations by Minister

The Minister may make regulations that are not in conflict with this Act, regarding -

- (a) any matter necessary to give effect to the Republic's obligations in terms of an international agreement relating to air quality;

- (b) matters relating to environmental management co-operation agreements, to the extent that those agreements affect air quality;
- (c) emissions, including the prohibition of specific emissions, from point, non-point and mobile sources of emissions, including motor vehicles;
- (d) open fires and incinerators;
- (e) ozone-depleting substances;
- (f) codes of practice;
- (g) records and returns;
- (h) labelling;
- (i) trading schemes;
- (j) powers and duties of air quality officers;
- (k) appeals against decisions of officials in the performance of their functions in terms of the regulations;
- (l) incentives to encourage change in behaviour towards air pollution by all sectors in society;
- (m) requirements in respect of monitoring;

- (n) the avoidance or reduction of harmful effects on air quality from activities not otherwise regulated in terms of this Act;
- (o) any matter that may or must be prescribed in terms of this Act; or
- (p) any other matter necessary for the implementation or application of this Act.

54. Regulations by MECs responsible for air quality

The MEC may make regulations for the province concerned, not inconsistent with this Act, in respect of any matter for which the MEC may or must make regulations in terms of this Act, including a matter referred to in [section 53](#)(c) to (p).

55. General

- (1) Regulations made in terms of this Act may -
 - (a) restrict or prohibit any act, either absolutely or conditionally;
 - (b) apply -
 - (i) generally to the Republic or a province, as the case may be, or only in a specified area or category of areas; or
 - (ii) generally to all persons or only to a specified category of persons;

- (c) differentiate between different -
 - (i) areas or categories of areas; or
 - (ii) persons or categories of persons; and
 - (d) incorporate by reference any code of practice or any national or international standard relating to air quality.
- (2) Regulations made in terms of this Act may provide that any person who contravenes or fails to comply with a provision thereof is guilty of an offence and liable on conviction to -
- (a) imprisonment for a period not exceeding five years;
 - (b) an appropriate fine; or
 - (c) both a fine and imprisonment.
- (3) (a) Before publishing any regulation made in terms of this Act, or any amendment to the regulations, the Minister or MEC must follow a consultative process in accordance with [sections 56](#) and [57](#).
- (c) Paragraph (a) need not be complied with if the regulations are amended in a non-substantive way.

Part 2: Consultative process

56. Consultation

- (1) Before exercising a power which, in terms this Act, must be exercised in accordance with this section and [section 57](#), the Minister or MEC must follow such consultative process as may be appropriate in the circumstances.
- (2) When conducting the consultations contemplated in subsection (1), the Minister must -
 - (a) consult all Cabinet members whose areas of responsibility will be affected by the exercise of the power;
 - (b) in accordance with the principles of co-operative governance as set out in [Chapter 3](#) of the Constitution, consult the MEC responsible for air quality in each province that will be affected by the exercise of the power; and
 - (c) allow public participation in the process in accordance with [section 57](#).
- (3) When conducting the consultations contemplated in subsection (1), the MEC must -
 - (a) consult all members of the Executive Council whose areas of responsibility will be affected by the exercise of the power;
 - (b) in accordance with the principles of co-operative governance as set out in [Chapter 3](#) of the Constitution, consult the Minister and all other

national organs of state that will be affected by the exercise of the power; and

- (c) allow public participation in the process in accordance with [section 57](#).

57. Public participation

- (1) Before exercising a power which, in terms of this Act, must be exercised in accordance with this section, the Minister or MEC must give notice of the proposed exercise of the relevant power -
 - (a) in the *Gazette*; and
 - (b) in at least one newspaper distributed nationally or, if the exercise of the power will affect only a specific area, in at least one newspaper distributed in that area.
- (2) The notice must –
 - (a) invite members of the public to submit to the Minister or MEC, within 30 days of publication of the notice in the *Gazette*, written representations on or objections to the proposed exercise of the power; and
 - (b) contain sufficient information to enable members of the public to submit meaningful representations or objections.

- (3) The Minister or MEC may in appropriate circumstances allow any interested person or community to present oral representations or objections to the Minister or MEC, or a person designated by the Minister or MEC.
- (4) The Minister or MEC must give due consideration to all representations or objections received or presented before exercising the power concerned.

Part 3: Delegations and exemptions

58. Delegations

- (1) The Minister or MEC, as the case may be, may delegate or assign to an official in their respective departments -
 - (a) any power or duty of the Minister or MEC contained in this Act, excluding the power to publish or amend a regulation in terms of [section 53](#) or [54](#) or a notice in terms of [section 7\(1\)](#), [9\(1\)](#), [10\(1\)](#), [18\(1\)](#), [21\(1\)](#), [23\(1\)](#) or [29\(1\)](#); or
 - (b) any power or duty reasonably necessary to assist the Minister or MEC in exercising a power or performing a duty of the Minister or MEC.
- (2) The Minister or MEC must regularly review and, if necessary, amend or withdraw a delegation or assignment under subsection (1).

- (3) A delegation or assignment to an official under subsection (1) -
 - (a) is subject to such limitations and conditions as the Minister or MEC may impose;
 - (b) may either be to a specific individual or to the holder of a specific post in the relevant department;
 - (c) may authorise that official to subdelegate or further assign, in writing, the power or duty concerned to another official in the department, or to the holder of a specific post in the department; and
 - (d) does not divest the Minister or MEC of the responsibility concerning the exercise of the delegated power or the performance of the assigned duty.
- (4) The Minister or MEC may confirm, vary or revoke any decision taken by an official as a result of a delegation or subdelegation in terms of this section, subject to any rights that may have become vested as a consequence of the decision.

59. Exemptions

- (1) (a) Any person or organ of state may, in writing, apply for exemption from the application of a provision of this Act to the Minister.

- (b) No exemption from a provision of [section 9](#), [22](#) or [25](#) may be granted in terms of paragraph (a).
- (2) An application in terms of subsection (1) must be accompanied by reasons.
- (3)
 - (a) The Minister may require an applicant applying for exemption to take appropriate steps to bring the application to the attention of relevant organs of state, interested persons and the public.
 - (b) The steps contemplated in paragraph (a) must include the publication of a notice in at least two newspapers circulating nationally -
 - (i) giving reasons for the application; and
 - (ii) containing such other particulars concerning the application as the Minister may require.
- (4) The Minister may -
 - (a) from time to time review any exemption granted in terms of this section; and
 - (b) on good grounds withdraw any exemption.
- (5) The Minister may on such conditions and limitations determined by the Minister delegate any of the powers contained in this section to -
 - (a) the MEC responsible for air quality in a province; or

- (b) a metropolitan or district municipality.

CHAPTER 9

MISCELLANEOUS

60. Repeal of legislation

(Commencement date of s. 60: 1 April 2010)

- (1) The legislation mentioned in the Table in Schedule 1 is hereby repealed or amended to the extent set out in the third column of the Table, subject to subsections (2) and (3) of this section and [section 61](#).
- (2) Anything done or deemed to have been done under a provision repealed by subsection (1) and which can be done in terms of a provision of this Act must be regarded as having been done under that provision of this Act.
- (3) Anything done or deemed to have been done under a provision repealed by subsection (1) and which can be done in terms of the constitutional or statutory powers of a municipality remains in force in the area of a municipality until repealed by the municipality of that area.

61. Transitional arrangements in respect of registration certificates issued in terms of Atmospheric Pollution Prevention Act

(Commencement date of s. 61: 1 April 2010)

- (1) (a) Despite the repeal of the Atmospheric Pollution Prevention Act by [section 60](#) of this Act, a provisional registration certificate issued in terms of that Act and which was a valid certificate immediately before the date on which [section 60](#) took effect, continues to be valid for a period of two years from that date, subject to paragraph (c).
- (b) During the period for which a provisional registration certificate continues to be valid, the provisions of this Act, read with the necessary changes as the context may require, apply in respect of -
- (i) the holder of such a certificate as if that person is the holder of a provisional atmospheric emission licence issued in terms of [section 41\(1\)](#) of this Act for the activity for which the certificate was issued; and
 - (ii) the certificate as if the certificate is a provisional atmospheric emission licence.
- (c) If during the two-year period referred to in paragraph (a) -
- (i) a provisional atmospheric emission licence is issued to the holder of a provisional registration certificate following a revision in terms of [section 45](#) or an application for renewal in terms of [section 47](#), the

certificate expires on the date of issue of the provisional licence; or

- (ii) an atmospheric emission licence is issued to the holder of a provisional registration certificate in terms of [section 42\(1\)](#), the certificate expires on the date of issue of the licence.
- (2) (a) Despite the repeal of the Atmospheric Pollution Prevention Act by [section 60](#) of this Act, a registration certificate issued in terms of that Act and which was a valid certificate immediately before the date on which [section 60](#) took effect, continues to be valid for a period of four years from that date, subject to paragraph (d).
- (b) During the period for which a registration certificate continues to be valid, the provisions of this Act, read with the necessary changes as the context may require, apply in respect of -
- (i) the holder of such a certificate as if that person is the holder of an atmospheric emission licence issued in terms of [section 42\(1\)](#) of this Act for the activity for which the certificate was issued; and
 - (ii) the certificate as if the certificate is an atmospheric emission licence.

- (c) The holder of a registration certificate must within the first three years of the four-year period referred to in paragraph (a), lodge a renewal application in terms of [section 47](#) with the licensing authority of the area in which the activity for which the certificate was issued is carried out.
- (d) (i) If the holder of a registration certificate fails to comply with paragraph (c),
- the certificate expires at the end of the three years referred to in paragraph (c).
- (ii) If during the four-year period referred to in paragraph (a) an atmospheric emission licence is issued to the holder of a registration certificate following an application for renewal in terms of paragraph (c), the certificate expires on the date of issue of the licence.
- (iii) If during the period before the holder of a registration certificate lodges an application for renewal in terms of paragraph (c), an atmospheric emission licence is issued to the holder of the certificate following a revision in terms of [section 45](#), the certificate expires on the date of issue of the licence. In such event compliance with paragraph (c) falls away.

- (3) Despite the repeal of the Atmospheric Pollution Prevention Act by [section 60](#) of this Act, any application for a registration certificate made in terms of that Act which was not decided when [section 60](#) took effect, must be proceeded with in terms of this Act as if such application was an application for an atmospheric emission licence in terms of [section 37](#).

62. Transitional provision regarding listed activities

Pending the listing of activities by the Minister in terms of [section 21](#), the processes identified in the Second Schedule of the Atmospheric Pollution Prevention Act must for the purposes of this Act be regarded as activities listed by the Minister in terms of that section.

63. Transitional provision regarding ambient air quality standards

Until ambient air quality standards have been established in terms of [section 9](#), [10](#) or [11](#), the ambient air quality standards contained in [Schedule 2](#) apply.

64. Short title and commencement

- (1) This Act is called the National Environmental Management: Air Quality Act, 2004, and takes effect on a date determined by the Minister by notice in the *Gazette*.
- (2) Different dates may be determined in terms of subsection (1) for different provisions of the Act.

2. SCHEDULE 1

(Section 60)

Legislation repealed

No. and year of Act	Short title	Extent of repeal or amendment
Act No. 45 of 1965	Atmospheric Pollution Prevention Act, 1965	The whole
Act No. 17 of 1973	Atmospheric Pollution Prevention Amendment Act, 1973	The whole
Act No. 21 of 1981	Atmospheric Pollution Prevention Amendment Act, 1981	The whole
Act No. 15 of 1985	Atmospheric Pollution Prevention Amendment Act, 1985	The whole

[Schedule 1 substituted by s. 8 of Act 44/2008]

3. SCHEDULE 2

(Section 63)

Ambient air quality standards

[This schedule was replaced on 24 December 2009 by the ambient air quality standards contained in GN 1210 / GG 32816 / 20091224, see page 6]

GOVERNMENT NOTICE

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

No. 1210

24 December 2009

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004
(ACT NO. 39 OF 2004)

NATIONAL AMBIENT AIR QUALITY STANDARDS

I, Buyelwa Patience Sonjica, Minister of Water and Environmental Affairs, in terms of section 9(1) of the Act, hereby establishes the national ambient air quality standards as set out in the Schedule to this notice.



BUYELWA SONJICA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

1. DEFINITIONS

“averaging period” means a period over which an average value is determined.

“compliance date” means the date in which compliance with the standard is required.

“frequency of exceedence” means a frequency (number/time) related to a limit value representing the tolerated exceedence of that limit value, i.e. if exceedences of limit value are within the tolerances, then there is still compliance with the standard. These exceedences are applicable to a calendar year.

“limit value” means a level fixed on the basis of scientific knowledge, with the aim of reducing harmful effects on human health (or the environment (or both)), to be attained with a given compliance period and not to be exceeded once attained.

2. GENERAL

2.1 Reference conditions

Concentrations shall be expressed at a standardized temperature of 25 °C and a pressure of 101, 3 kPa.

2.2 Reference methods

Where test methods are specified, any other method which can be demonstrated to give equivalent results may be used. Documentary proof of equivalence in the form of test results

from SANAS accredited laboratory or a peer-reviewed report shall be provided. The obligation to provide sufficient proof shall lie with the proponent.

2.3 Ambient air quality measurement requirements

Assessment of all ambient pollutant concentrations shall be conducted in terms of section 5.2.1.3 of the National Framework for Air Quality Management in the Republic of South Africa.

3. NATIONAL AMBIENT AIR QUALITY STANDARDS

3.1 National Ambient Air Quality Standards for Sulphur Dioxide (SO₂)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
10 minutes	500 µg/m ³ (191 ppb)	526	Immediate
1 hour	350 µg/m ³ (134 ppb)	88	Immediate
24 hours	125 µg/m ³ (48 ppb)	4	Immediate
1 year	50 µg/m ³ (19 ppb)	0	Immediate

The reference method for the analysis of sulphur dioxide shall be ISO 6767

3.2 National Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 hour	200 µg/m ³ (106 ppb)	88	Immediate
1 year	40 µg/m ³ (21 ppb)	0	Immediate

The reference method for the analysis of nitrogen dioxide shall be ISO 7996

3.3 National Ambient Air Quality Standards for Particulate Matter (PM₁₀)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
24 hours	120µg/m ³	4	Immediate – 31 December 2014
24 hours	75 µg/m ³	4	1 January 2015
1 year	50µg/m ³	0	Immediate – 31

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
			December 2014
1 year	40 $\mu\text{g}/\text{m}^3$	0	1 January 2015
The reference method for the determination of the particulate matter fraction of suspended particulate matter shall be EN 12341			

3.4 National Ambient Air Quality Standards for Ozone (O_3)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
8 hours (running)	120 $\mu\text{g}/\text{m}^3$ (61 ppb)	11	Immediate
The reference method for the analysis of ozone shall be UV photometric method as described in ISO 13964			

3.5 National Ambient Air Quality Standards for Benzene (C₆H₆)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 year	10 µg/m ³ (3.2 ppb)	0	Immediate – 31 December 2014
1 year	5 µg/m ³ (1.6 ppb)	0	1 January 2015

The reference methods for the sampling and analysis of benzene shall either be EPA compendium method TO-14 A or method TO-17

3.6 National Ambient Air Quality Standards for Lead (Pb)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 year	0.5 µg/m ³	0	Immediate

The reference method for the analysis of lead shall be ISO 9855

3.7 National Ambient Air Quality Standards for Carbon Monoxide (CO)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
1 hour	30 mg/m ³ (26 ppm)	88	Immediate
8 hour (calculated on 1 hourly averages)	10 mg/m ³ (8.7 ppm)	11	Immediate

The reference method for analysis of Carbon Monoxide shall be ISO 4224

GOVERNMENT NOTICE

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

No. 248

31 March 2010

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004)

LIST OF ACTIVITIES WHICH RESULT IN ATMOSPHERIC EMISSIONS WHICH HAVE OR MAY HAVE A SIGNIFICANT DETRIMENTAL EFFECT ON THE ENVIRONMENT, INCLUDING HEALTH, SOCIAL CONDITIONS, ECONOMIC CONDITIONS, ECOLOGICAL CONDITIONS OR CULTURAL HERITAGE

I, Buyelwa Patience Sonjica, Minister of Water and Environmental Affairs, hereby establishes the list of activities as contemplated in Section 21(1)(a) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) and the minimum emission standards for these listed activities as contemplated in Section 21(3)(a) and (b) of the Act as set out in the Schedule hereto.

In terms of Section 21(3)(c) of the Act, 1 April 2010 is the date on which this Notice takes effect.



BUYELWA SONJICA, MP
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS
DATE: 2010-03-09

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(4) *Subcategory 7.4: Manufacturing activity involving the production, use in manufacturing or recovery of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, by the application of heat.*

(5) *Subcategory 7.5: Production of calcium carbide*

(6) *Subcategory 7.6: Production of phosphorus and phosphate salts not mentioned elsewhere*

17. Category 8: Disposal of hazardous and general waste

18. Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery

(1) *Subcategory 9.1: Lime recovery kiln*

- (2) *Subcategory 9.2: Alkali waste chemical recovery furnaces*
 - (3) *Subcategory 9.3: Copeland alkali waste chemical recovery process*
 - (4) *Subcategory 9.4: Chlorine dioxide plant*
 - (5) *Subcategory 9.5: Wood drying and the production of manufactured wood products*
19. **Category 10: Animal matter processing**

SCHEDULE A – METHODS FOR SAMPLING AND ANALYSIS

Part 1: Definitions

1. Definitions

- (1) In this Notice a word or expression to which a meaning has been assigned in the Act has that meaning and, unless the context otherwise indicates: –

“Act” means the National Environmental Management: Air Quality Act 2004 (Act No.39 of 2004).

“Alternative fuels and resources” means general and hazardous waste materials or secondary products from other industries which are used to substitute conventional or primary fossil fuel and/or virgin raw materials in cement kilns and other industrial processes.

“Atmospheric Emission License” means an atmospheric emission license contemplated in Chapter 5 of the Act.

“Biomass” means non-fossilised and biodegradable organic material originating from plants, animals and micro-organisms excluding – (a) sewage; and (b) treated or coated wood waste which may contain halogenated organic compounds or heavy metals.

“Design capacity” means capacity as installed.

“Existing Plant” shall mean any plant or process that was legally authorized to operate before the date on which this Notice takes effect or any plant where an application for

authorisation in terms of the National Environmental Management Act 1998 (Act No.107 of 1998), as amended, was made before the date on which this Notice takes effect.

“Flare” means a combustion device that uses an open flame to burn combustible gases with combustion air provided by ambient air around the flame. Combustion may be steam or air assisted. Flares may be either continuous or intermittent. This term includes both ground and elevated flares.

“Fugitive emissions” means emissions to the air from a facility for which an emission licence has been issued, other than those emitted from a point source.

“Licensing authority” means an authority referred to in sections 36(1), (2), (3) or (4) responsible for implementing the licensing system set out in Chapter 5 of the Act.

“Listed activities” includes the singular.

“New Plant” shall mean any plant or process where the application for authorisation in terms of the National Environmental Management Act 1998 (Act No.107 of 1998), as amended, was made on or after the date on which this Notice takes effect.

“Normal operating condition” means: any condition that constitutes operation as designed.

“Oxides of nitrogen (NO_x)” means the sum of nitrogen oxide (NO) and nitrogen dioxide (NO₂) expressed as nitrogen dioxide (NO₂)

“Particulate Matter (PM)” means total particulate matter, that is the solid matter contained in the gas stream in the solid state as well as the insoluble and soluble solid matter contained in entrained droplets in the gas stream, as measured by the appropriate method listed in section 4.

“Petrochemicals” means ethylene and its polymers, ethylene oxide, ethylene glycol, glycol ethers, ethoxylates, vinyl acetate, 1,2-dichloroethane, trichloroethylene, tetrachloroethylene, vinyl chloride, propylene, propyl alcohols, acrylonitrile, propylene oxide, isomers of butylene, butyl ethers, butadienes, polyolefins and alpha-olefins, all alcohols (except those produced during the production of beverages), acrylic acid, allyl chloride, epichlorohydrin, benzene and alkylbenzenes, toluene, o-, m- and p-xylene, ethylbenzene, styrene, cumene, phenols, acetone, cyclohexane, adipic acid, nitrobenzene, chloro-benzene, aniline, methylene diphenyl diisocyanate (MDI), toluene diisocyanate or other di-isocyanates of comparable volatility, benzoic acid.

“Point source” means a single identifiable source and fixed location of atmospheric emission, and includes smoke stacks and residential chimneys.

“SANAS” means the South African National Accreditation System established by Section 3 of the Accreditation for

Conformity Assessment Calibration and Good Laboratory Practice, 2006 (Act No. 19 of 2006).

“Sulphur Recovery Plant” means a process unit that processes sulphur containing gases obtained from the processing of crude mineral oil or the coking or gasification of coal and produces a final product of elemental sulphur.

“Upset conditions” means any temporary failure of air pollution control equipment or process equipment or failure of a process to operate in a normal or usual manner that leads to an emission standard being exceeded.

“Total Volatile Organic Compounds” means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.

Part 2: General

2. **Applicability of the Notice**

- (1) Minimum emission standards as contained in this Notice shall apply to both permanently operated plants and for experimental (pilot) plants with a design capacity equivalent to the one of a listed activity.

- (2) Minimum emission standards are applicable under normal working conditions.
- (3) Should normal start-up, maintenance, upset and shut-down conditions exceed a period of 48 hours, Section 30 of the National Environmental Management, 1998 (Act No. 107 of 1998), as amended, shall apply unless otherwise specified by the Licensing Authority.

3. Averaging Period

Unless where specified, minimum emission standards are expressed on a daily average basis, under normal conditions of 273 K, 101.3 kPa, specific oxygen percentage and dry gas.

4. Emission measurement

- (1) The manner in which measurements of minimum emissions standards, as required by Section 21(3)(a)(ii) of the Act, shall be carried out must be in accordance with the standard sampling and analysis methods listed in Schedule A of the Notice.
- (2) Methods other than those contained in Schedule A may be used with the written consent of the National Air Quality Officer.
- (3) In seeking the written consent referred to in 4(2), an applicant must provide the National Air Quality Officer with any information that supports the equivalence of the method other

than that contained in Schedule A to a method contained in Schedule A.

5. Compliance time frames

- (1) New plant must comply with the new plant minimum emission standards as contained in Part 3 on the date of publication of this Notice.
- (2) Existing plant must comply with minimum emission standards for existing plant as contained in Part 3 within 5 years of the date of publication of this Notice.
- (3) Existing plant must comply with minimum emission standards for new plant as contained in Part 3 within 10 years of the date of publication of this Notice.

6. Postponement of compliance time frames

- (1) As contemplated in Section 5.4.3.5 of the 2007 National Framework for Air Quality Management in the Republic of South Africa (2007) published in terms of Section 7 of the Act, an application may be made to the National Air Quality Officer for the postponement of the compliance time frames in Section 5 for an existing plant.
- (2) The application contemplated in 6(1) must include –
 - (a) an Atmospheric Impact Report in terms of Section 30 of the Act, compiled by a person registered as a professional engineer or as a professional natural scientist in the appropriate category;

- (b) a detailed justification and reasons for the application; and
 - (c) a certified copy of the announcement of the intention to seek postponement in, at least, one newspaper distributed in the area affected by the specific plant.
- (3) The National Air Quality Officer, with the concurrence of the Licensing Authority as contemplated in Section 36 of the Act, may grant a postponement of the compliance time frames in 5 for an existing plant for a period, not exceeding 5 years.
- (4) The National Air Quality Officer, with the concurrence of the Licensing Authority, may –
 - (a) from time to time review any postponement granted in terms of 6(3) should ambient air quality conditions in the affected area of the plant not conform to ambient air quality standards; and
 - (b) on good grounds, withdraw any postponement following –
 - (i) representations from the affected plant; and
 - (ii) representations from the affected communities.

7. Compliance monitoring

- (1) Where continuous emission monitoring is required for a listed activity in terms of the minimum emission standards as contained in Part 3 –
 - (a) the averaging period for the purposes of compliance monitoring shall be one calendar month or as prescribed in the Atmospheric Emission License as contemplated in Section 22 of the Act.
 - (b) the emission monitoring system must be maintained to yield a minimum of 80% valid hourly average values during the reporting period.
 - (c) no more than five half-hourly average values in any day, and no more than ten daily average values per year, may be discarded due to malfunction or maintenance of the continuous measurement system.
 - (d) continuous emission monitoring systems must be audited by an SANAS accredited laboratory at least once every two (2) years.
- (2) Where periodic emission monitoring is required for a listed activity in terms of the minimum emission standards as contained in Part 3 –
 - (a) emission measurement will be conducted in accordance with Section 4.

- (b) measurements shall take place on, at least, an annual basis unless otherwise prescribed in the Atmospheric Emission License as contemplated in Section 22 of the Act.
- (c) sampling will take place using the permitted feed-stock or raw material and under operating conditions that are representative of operating conditions in the reporting period.
- (d) all tests will be conducted by SANAS accredited laboratories or laboratories accredited by similar foreign authorities.

8. Reporting Requirements

- (1) Notwithstanding the compliance time frames established in terms of Section 5, the Atmospheric Emission License holder shall submit an emission report in the form specified by the National Air Quality Officer to the Licensing Authority –
 - (a) within one (1) year of the date of publication of this Notice; and
 - (b) annually thereafter unless otherwise prescribed in the Atmospheric Emission License as contemplated in Section 22 of the Act.
- (2) The report contemplated in 8(1) shall include –

- (a) The name, description and license reference number of the plant as reflected in the Atmospheric Emission License.
- (b) Where periodic emission monitoring is required for a listed activity in terms of the minimum emission standards as contained in Part 3 –
 - (i) the name and address of the accredited measurement service-provider that carried out or verified the emission test, including the test report produced by the accredited measurement service-provider;
 - (ii) the date and time on which the emission test was carried out;
 - (iii) a declaration by the Atmospheric Emission License holder to the effect that normal operating conditions were maintained during the emission tests;
 - (iv) the total volumetric flow of gas, expressed in normal cubic meters (Nm³) per unit time and mass flow (kg per unit time) being emitted by the listed activity or activities measured during the emission test, as the average of at least two (2) measurements;
 - (v) the concentration or mass of pollutant for which emissions standards have been set in this Notice emitted by listed activity or activities as the average of at least two (2) measurements; each measured over a

minimum sample period of 60 minutes and a maximum of 8 hours to obtain a representative sample, and

- (vi) the method or combination of methods used for determining the flow rate and concentration as contemplated in Section 4.
- (c) Where continuous emission monitoring is required for a listed activity in terms of the minimum emission standards as contained in 0 –
- (i) results of the spot measurements or correlation tests carried out to verify the accuracy of the continuous emission measurements;
 - (ii) the most recent correlation tests; and
 - (iii) the availability of the system as contemplated in 7(1)(b) in terms of the number of full hours per annum that valid results were obtained.
- (d) Following the compliance time frames established in terms of Section 5, an explanation of all instances where minimum emission standards were exceeded and remediation measures and associated implementation plans aimed at ensuring that the exceedences do not re-occur.
- (e) Any other relevant information as required by the National Air Quality Officer from time to time.

- (3) Within three (3) years of the date of publication of this Notice, the National Air Quality Officer will establish an internet-based National Atmospheric Emission Inventory as a component of the South African Air Quality Information System (SAAQIS). Once established, the reports contemplated in 8(1) must be made in the format required for the internet-based National Atmospheric Emission Inventory.

9. General special arrangement

A fugitive emissions management plan must be included in the Atmospheric Emission Licenses for listed activities that are likely to generate such emissions.

Part 3: Minimum Emission Standards

10. Category 1: Combustion Installations

(1) *Subcategory 1.1: Solid fuel combustion installations*

Description:	Solid fuels (excluding biomass) combustion installations used primarily for steam raising or electricity generation.		
Application:	All installations with design capacity equal to or greater than 50 MW heat input per unit, based on the lower calorific value of the fuel used.		
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 10% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate	N/A	New	50

matter		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	3500
Oxides of nitrogen	NO _x expressed as NO ₂	New	750
		Existing	1100

(a) The following special arrangement shall apply –

- (i) Continuous emission monitoring of PM, SO₂ and NO_x is required.

(2) *Subcategory 1.2: Liquid fuel combustion installations*

Description:		Liquid fuels combustion installations used primarily for steam raising or electricity generation, except reciprocating engines.	
Application:		All installations with design capacity equal to or greater than 50 MW heat input per unit, based on the lower calorific value of the fuel used.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 3% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	75
Sulphur dioxide	SO ₂	New	500
		Existing	3500
Oxides of nitrogen	NO _x expressed as NO ₂	New	250
		Existing	1100

- (b) The following special arrangements shall apply –
- (i) Reference conditions for gas turbines shall be 15% O₂, 273K and 101.3kPa
 - (ii) Continuous emission monitoring of PM, SO₂ and NO_x is required.
 - (iii) Combustion of waste oil shall be subject to emission standards of Category 8: Disposal of hazardous and general waste.

(3) *Subcategory 1.3: Solid biomass combustion installations*

Description:		Solid biomass fuel combustion installations used primarily for steam raising or electricity generation.	
Application:		All installations with design capacity equal to or greater than 50 MW heat input per unit, based on the lower calorific value of the fuel used.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	3500
Oxides of nitrogen	NO _x expressed as NO ₂	New	750
		Existing	1100

- (c) The following special arrangement shall apply –

- (i) Continuous emission monitoring of PM, SO₂ and NO_x is required.

(4) *Subcategory 1.4: Gas combustion installations*

Description:	Gas combustion (including gas turbines burning natural gas) used primarily for steam raising or electricity generation, except reciprocating engines.		
Application:	All installations with design capacity equal to or greater than 50 MW heat input per unit, based on the lower calorific value of the fuel used.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 3% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	NA	New	10
		Existing	10
Sulphur dioxide	SO ₂	New	400
		Existing	500
Oxides of nitrogen	NO _x expressed as NO ₂	New	50
		Existing	300

(a) The following special arrangements shall apply –

- (i) Reference conditions for gas turbines shall be 15% O₂, 273K and 101.3kPa.
- (ii) The limit for sulphur dioxide for new installations using low-calorific value gases from coal or refinery waste gasification and coke production shall be 400 mg/Nm³.

11. Category 2: Petroleum Industry, the production of gaseous and liquid fuels as well as petrochemicals from crude oil, coal, gas or biomass

(1) Subcategory 2.1: Combustion installations

Description:		Combustion installations not used primarily for steam raising or electricity generation.	
Application:		All combustion installations (except test or experimental) including catalytic cracking regenerators.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	120
Oxides of nitrogen	NO _x expressed as NO ₂	New	250
		Existing	1700
			Daily average kg SO ₂ / ton of crude oil throughput.
Sulphur dioxide	SO ₂	New	0.4
		Existing	0.8

- (a) The following special arrangements shall apply:
- (i) The oxides of nitrogen shall be calculated as a flow-weighted average over all combustion processes.

- (ii) No continuous flaring of hydrogen sulphide-rich gases shall be allowed.
- (iii) Allowable SO₂ emissions from a refinery will be calculated as the sum of emissions from combustion, sulphur recovery units, flares and catalytic cracking units. For purposes of this calculation, catalytic cracking emissions will be calculated as if feed is not hydro-treated by the most appropriate method for each facility as approved by the licensing authority.

(2) *Subcategory 2.2: Storage and Handling of Petroleum Products*

Description:	Petroleum product storage tanks and product transfer facilities, except those used for liquefied petroleum gas.		
Application:	All permanent immobile liquid storage tanks larger than 500 cubic meters cumulative tankage capacity at a site.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Total volatile organic compounds from vapour recovery/ destruction units.	N/A	New	150
		Existing	150

			g/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Total volatile organic compounds from vapour recovery/ destruction units (Non thermal treatment) (Thermal treatment).	N/A	New	40
		Existing	40

- (a) The following transitional arrangements shall apply:
- (i) Leak detection and repair (LDAR) program approved by licensing authority to be instituted, within two (2) years following the date of publication of this Notice.
- (b) The following special arrangements shall apply for control of TVOCs from storage, loading and unloading of raw materials, intermediate and final products with a vapour pressure of > 14kPa at operating temperature, except during loading and unloading. Alternative control measures that can achieve the same or better results may be used –
- (i) Storage vessels for liquids shall be of the following type:

True vapour pressure of contents at storage temperature	Type of tank or vessel
Up to 14 kPa	Fixed roof tank vented to atmosphere.
Above 14 kPa up to 91 kPa	External floating roof tank with primary and secondary rim seals for tank diameter larger than 20m, or fixed roof tank with internal floating deck fitted with primary seal, or fixed roof tank with vapour recovery system.
Above 91 kPa	Pressure vessel

- (ii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except for doomed floating roof tanks or internal floating roof tanks) shall have sleeves fitted to minimise emissions.
- (iii) Relief valves on pressurised storage should undergo periodic checks for internal leaks. This can be carried out using portable acoustic monitors or if venting to atmosphere with an accessible open end, tested with a hydrocarbon analyser as part of an LDAR programme.
- (iv) Loading/unloading: All installations with a throughput of 5000 m³ per annum must be fitted with vapour recovery units. All liquid products with a vapour pressure above 14

kPa shall be loaded/unloaded using bottom loading, with the vent pipe connected to a gas balancing line. Vapours expelled during loading operations must be returned to the loading tank if it is of the fixed roof type where it can be stored prior to vapour recovery or destruction. Where vapour balancing and/ or bottom loading is not possible, a recovery system utilising adsorption, absorption and condensation and/or incineration of the remaining VOC, with a collection efficiency of at least 95% shall be fitted.

- (v) The actual temperature in the tank must be used for vapour pressure calculations.

(3) *Subcategory 2.3: Industrial fuel oil recyclers*

Description:		Installations used to recycle or recover oil from waste oils.	
Application:		Industrial fuel oil recyclers with a throughput > 5000 ton/month.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Carbon monoxide	CO	New	130
		Existing	250
Sulphur dioxide	SO ₂	New	500

		Existing	3500
Total volatile organic compounds from vapour recovery/destruction units.	N/A	New	40
		Existing	90

- (c) The transitional arrangements contained in 11(2)(a) shall apply.
- (d) The special arrangement contained in 11(2)(b) shall apply.
- (e) Combustion of waste oil shall be subject to emission standards of Category 8: Disposal of hazardous and general waste.

12. Category 3: Carbonization and Coal Gasification

(1) Subcategory 3.1: Combustion installations

Description:	Combustion installations not used primarily for steam raising or electricity generation.		
Application:	All combustion installations (except test or experimental installations).		
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 10% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100

Oxides of nitrogen	NO _x expressed as NO ₂	New	700
		Existing	2000
Total volatile organic compounds (from non-coke oven operations)	N/A	New	40
		Existing	90

(a) The following special arrangement shall apply:

- (i) Sulphur-containing compounds to be recovered from gases to be used for combustion with a recovery efficiency of not less than 90% or remaining content of sulphur-containing compounds to be less than 1000 mg/Nm³ measured as hydrogen sulphide, whichever is strictest.

(2) *Subcategory 3.2: Coke production and coal gasification*

Description:		Coke production, coal gasification and by-product recovery from these operations.	
Application:		All installations	
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Hydrogen sulphide	H ₂ S	New	7 ⁽ⁱ⁾
		Existing	10 ⁽ⁱ⁾
Notes:	(i) from point source		

- (a) The following special arrangements shall apply:
- (i) Charging must be carried out "on the main" with additional draught in the ascension or riser pipes produced by high-pressure water jets in the goosenecks. Even coal feeding must be ensured using screw feeders or rotary valve feeders. Telescopic seals are to be used around the charging holes. Visible emissions are limited to 12 sec per charge
 - (ii) For pushing, evacuation from the coke guide and the quench car using stationary ducting and gas cleaning or any other technology yielding the equivalent or better results is required.
 - (iii) For quenching, the quench tower must have suitable baffles; quench water must have less than 50 mg/litre suspended solids and no floating oil.
 - (iv) A battery and door frame maintenance system approved by the licensing authority must be operated. No more than 4% of doors may show visible leaks; no more than 2.5% of gas off-take pipes may show visible leaks.
 - (v) Measurement/ inspection procedures for visible leaks from doors, standpipes and

from charging shall be carried out weekly for each battery using method EPA 303 from table 1 and records submitted to the licensing authority on a quarterly basis.

- (b) The licensing authority may set alternative standards and/or control measures for the reduction of hydrogen sulphide emissions.

(3) *Subcategory 3.3: Tar Production*

Description:		Processes in which tar, creosote or any other product of distillation of tar is distilled or is heated in any manufacturing process.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Total Volatile Organic Compounds	N/A	New	130
		Existing	250

- (a) The following transitional and special arrangements shall apply:

- (i) Leak detection and repair (LDAR) program approved by licensing authority to be instituted, within one year after publication date of this Notice.

- (ii) Storage vessels for liquids shall be of the following type:

True vapour pressure of contents at storage temperature	Type of tank or vessel
Up to 14 kPa	Fixed roof tank vented to atmosphere.
Above 14 kPa up to 91 kPa	External floating roof tank with primary and secondary rim seals for tank diameter larger than 20m, or fixed roof tank with internal floating deck fitted with primary seal, or fixed roof tank with vapour recovery system.
Above 91 kPa	Pressure vessel.

- (iii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except domed floating roof tanks or internal floating roof tanks) shall have sleeves fitted to minimise emissions.
- (iv) Relief valves on pressurised storage should undergo periodic checks for internal leaks. This can be carried out using portable acoustic monitors or if venting to atmosphere with an accessible open end, tested with a hydrocarbon analyser as part of an LDAR programme.
- (v) Loading/unloading (except rail loading and unloading): All liquid products with a vapour pressure above 14 kPa shall be loaded/unloaded using bottom loading, with the vent pipe connected to a

gas balancing line. Vapours expelled during loading operations must be returned to the loading tank if it is of the fixed roof type where it can be stored prior to vapour recovery or destruction. Where vapour balancing is not possible, a recovery system utilising adsorption, absorption and condensation and/or incineration of the remaining VOC, with a collection efficiency of at least 95 % shall be fitted.

- (vi) The actual temperature in the tank must be used for vapour pressure calculations.
- (vii) Alternative control measures that can achieve the same or better results may be used.

(4) *Subcategory 3.4 Char, charcoal and carbon black production*

Description:		Char, charcoal and carbon black production (excluding electrode paste production).	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Poly Aromatic Hydrocarbons	PAH	New	0.1
		Existing	0.5

(5) *Subcategory 3.5 Electrode paste production*

Description:	Electrode paste production.		
Application:	All installations.		
Substance or mixture of substances		Plant status	Mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100

13. **Category 4: Metallurgical Industry**

(1) *Subcategory 4.1: Drying*

Description:	Drying of mineral solids including ore.		
Application:	Facilities with a production capacity of more than 100 tons/month product.		
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	New	1000
		Existing	1000
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	1200

(2) *Subcategory 4.2: Combustion installations*

Description:	Combustion installations not used for primarily for steam raising and electricity generation (except drying).		
Application:	All combustion installations (except test or experimental).		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	2000

- (a) The following special arrangement shall apply –
- (i) Reference oxygen content appropriate to fuel type to be used.

(3) *Subcategory 4.3: Primary aluminium production*

Description:	Primary aluminium production.		
Application:	All installations.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions

Common name	Chemical symbol		of 273 Kelvin and 101.3 kPa.
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	Soderberg New	No new plant will be authorised
		Soderberg Existing	500
		AP Tech New	50
		AP Tech Existing	100
Total volatile organic compounds	N/A	New	40
		Existing	40
Total fluorides measured as Hydrogen fluoride	F as HF	New	0.5
		Existing	1

(4) *Subcategory 4.4: Secondary aluminium production*

Description:		Secondary aluminium production through the application of heat (excluding metal recovery, covered under 4.21).	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Total fluorides measured as	F as HF	New	1
		Existing	5

Hydrogen fluoride			
Total volatile organic compounds	N/A	New	40
		Existing	40
Ammonia	NH ₃	New	30
		Existing	100

(5) *Subcategory 4.5: Sinter plants*

Description:		Sinter plants for agglomeration of fine ores using a heating process, including sinter cooling where applicable.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	1000
Oxides of nitrogen	NO _x expressed as NO ₂	New	700
		Existing	1200

(6) *Subcategory 4.6: Basic oxygen furnace steel making*

Description:	Basic oxygen furnace in steel making industry.
Application:	All installations.

Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	500

(b) The following special arrangement shall apply:

(i) Secondary fume capture installations shall be fitted to all new furnace installations.

(7) Subcategory 4.7: Electric arc furnace and steel making (primary and secondary)

Description:		Electric arc furnace in steel making industry.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of	NO _x	New	500

nitrogen	expressed as NO ₂	Existing	500
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(a) The following special arrangement shall apply:

- (i) Secondary fume capture installations shall be fitted to all new furnace installations.

(8) *Subcategory 4.8: Blast furnace operations*

Description:		Blast furnace operations.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	500

(a) The following special arrangement shall apply:

- (i) Secondary fume capture installations shall be fitted to all new furnace installations.

(9) *Subcategory 4.9: Ferro-alloy production*

Description:	Production of alloys of iron with chromium, manganese, silicon or vanadium, the separation of titanium slag from iron-containing minerals using heat.		
Application:	All installations.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of nitrogen	NO _x expressed as NO ₂	New	400
		Existing	750
Particulate matter from primary fume capture system, open and semi-closed furnaces			
Particulate matter	N/A	New	30
		Existing	100
Particulate matter from primary fume capture system, closed furnaces			
Particulate matter	N/A	New	50
		Existing	100
Particulate matter from secondary fume capture system, all furnaces			
Particulate matter	N/A	New	50
		Existing	100

(b) The following special arrangement shall apply:

- (i) Secondary fume capture installations shall be fitted to all new furnace installations
- (ii) Emission of Cr(VI), Mn and V from primary fume captures systems of ferrochrome,

ferromanganese and ferrovanadium furnaces respectively to be measured and reported to licensing authority annually.

(10) *Subcategory 4.10: Foundries*

Description:		Production and casting of iron and its alloys.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Sulphur dioxide	SO ₂	New	400
		Existing	400
Oxides of nitrogen	NO _x expressed as NO ₂	New	400
		Existing	1200

(11) *Subcategory 4.11: Agglomeration operations*

Description:		Production of pellets or briquettes using presses, inclined discs or rotating drums.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100

Ammonia	NH ₃	New	30
		Existing	50

(12) *Subcategory 4.12: Pre-reduction and direct reduction*

Description:		Production of pre-reduced or metalised ore or pellets using gaseous or solid fuels.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide (from natural gas)	SO ₂	New	100
		Existing	500
Sulphur dioxide (from all other fuels)	SO ₂	New	500
		Existing	1700
Oxides of nitrogen	NO _x expressed as NO ₂	New (gas based)	500
		New (all other fuels)	1000
		Existing	2000

(13) *Subcategory 4.13: Lead smelting*

Description:		The production or processing of lead by the application of heat; the production of electric batteries containing lead.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	30
Lead	Pb (as fraction of Total Suspended Particles)	New	2
		Existing	2

(14) *Subcategory 4.14: Production and processing of zinc, nickel and cadmium*

Description:		The production and processing of zinc, nickel or cadmium by the application of heat excluding metal recovery.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of	NO _x expressed	New	500

nitrogen	as NO ₂	Existing	500
Mercury	Hg	New	0,2
		Existing	1,0
Dioxins	PCDD/PCDF	New	0,1ngTEQ
		Existing	No standard proposed

(a) The following transitional and special arrangement shall apply:

(i) Facilities processing nickel or cadmium shall measure or estimate, using a method to the satisfaction of the licensing authority, and report the emission of Ni and Cd respectively to the licensing authority annually, commencing within 1 year of publication.

(15) *Subcategory 4.15: Processing of arsenic, antimony, beryllium chromium and silicon*

Description:		The metallurgical production and processing of arsenic, antimony, beryllium chromium and silicon and their compounds by the application of heat.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/m ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	20
		Existing	30

(16) Subcategory 4.16: Smelting and converting of sulphide ores

Description:	Process in which sulphide ores are smelted, roasted calcined or converted.		
Application:	All installations.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Oxides of nitrogen	NO _x expressed as NO ₂	New	350
		Existing	2000
Sulphur dioxide (feed SO ₂ <5% SO ₂)	SO ₂	New	1200
		Existing	3500
Sulphur dioxide (feed SO ₂ >5% SO ₂)	SO ₂	New	1200
		Existing	2500

(b) The following special arrangements shall apply:

- (i) All facilities must install apparatus for the treatment of the sulphur content of the off-gases.

(17) *Subcategory 4.17: Precious and base metal production and refining*

Description:		The production or processing of precious and associated base metals.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Chlorine	Cl ₂	New	50
		Existing	50
Sulphur dioxide	SO ₂	New	400
		Existing	400
Hydrogen chloride	HCl	New	30
		Existing	30
Hydrogen fluoride	HF	New	30
		Existing	30
Ammonia	NH ₃	New	100
		Existing	100
Oxides of nitrogen	NO _x expressed as NO ₂	New	300
		Existing	500

- (a) The following transitional and special arrangement shall apply:

- (i) Plants processing nickel and its compounds shall report the emissions thereof to the licensing authority annually, commencing within 1 year of publication.

(18) *Subcategory 4.18: Vanadium ore processing*

Description:		The processing of vanadium-bearing ore or slag for the production of vanadium oxides by the application of heat.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	50
Sulphur dioxide	SO ₂	New	1200
		Existing	3500
Ammonia	NH ₃	New	30
		Existing	100
Vanadium	V	New & Existing	1 x 10 ⁻⁶

- (b) The following transitional and special arrangements shall apply:
- (i) Plants processing vanadium ore or slag for the production of vanadium oxides shall report the emissions of vanadium and its

compounds and ammonia to the licensing authority annually, commencing within 1 year of publication.

(19) *Subcategory 4.19: Production and casting of bronze and brass, and casting copper*

Description:		The production or and casting of bronze and brass and the casting of copper.	
Application:		All installations producing more than 10 tons per day of product in aggregate.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO ₂	New	500
		Existing	500
Oxides of Nitrogen	NO _x expressed as NO ₂	New	1000
		Existing	1200

(20) *Subcategory 4.20: Slag processes*

- (a) The following transitional and special arrangements shall apply:
- (i) Facilities processing slag by the application of heat for the recovery of chromium or

manganese content shall report the emissions of Cr(III) and Cr(VI) or Mn and its compounds respectively to the licensing authority annually, commencing within one year of the publication of the notice.

(21) *Subcategory 4.21: Metal recovery*

Description:		The recovery of non-ferrous metal from any form of scrap material containing combustible components by the application of heat.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	25
Carbon monoxide	CO	New	50
		Existing	75
Sulphur dioxide	SO ₂	New	50
		Existing	50
Oxides of nitrogen	NO _x expressed as NO ₂	New	200
		Existing	200
Hydrogen chloride	HCl	New	10
		Existing	10
Hydrogen fluoride	HF	New	1
		Existing	1
Sum of Lead, arsenic, antimony, chromium,	Pb+ As+ Sb+ Cr+ Co+ Cu +	New	0.5
		Existing	0.5

Description:	The recovery of non-ferrous metal from any form of scrap material containing combustible components by the application of heat.		
Application:	All installations.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal
cobalt, copper, manganese, nickel, vanadium	Mn+ Ni+ V		
Mercury	Hg	New	0.05
		Existing	0.05
Cadmium Thallium	Cd+Tl	New	0.05
		Existing	0.05
Total organic compounds	TOC	New	10
		Existing	10
Ammonia	NH ₃	New	10
		Existing	10
			ng I-TEQ /Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Dioxins and furans	PCDD/PCDF	New	0.1
		Existing	0.1

(22) *Subcategory 4.22: Hot dip galvanizing*

Description:	The coating of steel articles with zinc using molten zinc, including the pickling and/or fluxing of articles before coating.
Application:	All installations.

Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	15
Hydrogen Chloride	HCl	New	30
		Existing	30

(a) The following special arrangements shall apply:

- (i) Acid baths shall both be fitted with air extraction systems to the satisfaction of the licensing authority.
- (ii) Measurements of emissions to be carried out in the exhaust ducting of the extraction system.

(23) *Subcategory 4.23: Metal Spray*

Description:		The coating of metals with zinc using molten zinc.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	50

14. Category 5: Mineral Processing, Storage and Handling

(1) Subcategory 5.1: Storage and handling of ore and coal

Description:		Storage and handling of ore and coal not situated on the premises of a mine or works as defined in the Mines Health and Safety Act 29/1996.	
Application:		Locations designed to hold more than 100 000 tons.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Dustfall	N/A	New	a
		Existing	a
<p>^a: three month running average not to exceed limit value for adjacent land use according to dust fallout standards promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions</p>			

(2) Subcategory 5.2: Clamp kilns for brick production

Description:		The production of bricks using clamp kilns.	
Application:		All installations.	
Substance or mixture of substances		Plant status	
Common name	Chemical symbol		
Dust fall	N/A	New	a
		Existing	a
Sulphur dioxide	SO ₂	New	b
		Existing	b

^a: three month running average not to exceed limit value for adjacent land use according to dust fallout standards promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions.

^b: Twelve month running average not to exceed limit value as per GN 1210 of 24 December 2009. Passive diffusive measurement approved by the licensing authority carried out monthly.

(3) *Subcategory 5.3: Cement production (using conventional fuels and raw materials)*

Description:		The production and cooling of Portland cement clinker; grinding and blending of clinker to produce finished cement; and packaging of finished cement.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter (Kiln)	N/A	New	50
		Existing	100
Particulate matter (Cooler ESP)	N/A	New	100
		Existing	150
Particulate matter (Cooler BF)	N/A	New	50
		Existing	50
Particulate matter (Clinker grinding)	N/A	New	30
		Existing	50
Sulphur dioxide	SO ₂	New	250
		Existing	250

Oxides of nitrogen	NO _x expressed as NO ₂	New	1200
		Existing	2000

(a) The following special arrangements shall apply:

(i) Emissions from cooling, grinding and fugitive dust capture processes are not subject to the oxygen content reference condition.

(4) *Subcategory 5.4: Cement production (using alternative fuels and/or resources)*

Description:		The production and cooling of Portland cement clinker; grinding and blending of clinker to produce finished cement where alternative fuels and/or resources are used.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	80
Sulphur dioxide	SO ₂	New	50
		Existing	250
Oxides of nitrogen	NO _x expressed as NO ₂	New	800
		Existing	1200
Total organic compounds,	N/A	New	10
		Existing	10

Description:	The production and cooling of Portland cement clinker; grinding and blending of clinker to produce finished cement where alternative fuels and/or resources are used.		
Application:	All installations.		
Substance or mixture of substances		Plant	mg/Nm³ under
Hydrogen chloride	HCl	New	10
		Existing	10
Hydrogen fluoride	HF	New	1
		Existing	1
Cadmium + Thallium	Cd + Tl	New	0.05
		Existing	0.05
Mercury	Hg	New	0.05
		Existing	0.05
Sum of arsenic, antimony, lead, chromium, cobalt, copper, manganese, vanadium and nickel	As; Sb; Pb; Cr; Co; Cu; Mn; V & Ni	New	0.5
		Existing	0.5
			ng I-TEQ /Nm³ under normal conditions of 10% O₂ , 273 Kelvin and 101.3 kPa.
Dioxins and furans	PCDD/PCDF	New	0.1
		Existing	0.1

(a) The following special arrangements shall apply:

- (i) Compliance timeframes for PM and NO_x shall be in accordance with the National Policy on Thermal Treatment of General

and Hazardous Waste (GG No.32439, Notice No.777 of 24 July 2009).

- (ii) Compliance with the requirements specified under Schedule 4; Section 11.4 of the National Policy on Thermal Treatment of General and Hazardous Waste (GG No.32439, Notice No.777 of 24 July 2009).

(5) *Subcategory 5.5: Lime production*

Description:		Burning of lime, magnesite, dolomite and calcium sulphate.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	50
Sulphur dioxide	SO ₂	New	400
		Existing	400
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	500

(6) *Subcategory 5.6: Glass and mineral wool production*

Description:	The production of glass containers, flat glass, glass fibre and mineral wool.
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Application:	All installations producing 100 ton per annum or more.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 11% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	140
Oxides of nitrogen	NO _x expressed as NO ₂	New	1500
		Existing	2000
Sulphur dioxide (Gas fired furnace)	SO ₂	New	800
		Existing	800
Sulphur dioxide (Oil fired furnace)	SO ₂	New	1500
		Existing	1500

(7) *Subcategory 5.7: Ceramic production*

Description:	The production of tiles, bricks, refractory bricks, stoneware or porcelain ware by firing, excluding clamp kilns.		
Application:	All installations producing 100 ton per annum or more.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	150

Sulphur dioxide	SO ₂	New	400
		Existing	1000
Total fluorides measured as hydrogen fluoride	HF	New	50
		Existing	50

(8) *Subcategory 5.8: Macadam preparation*

Description:		The production mixtures of aggregate and tar or bitumen to produce road surfacing in permanent facilities and mobile plants.	
Application:		All plants.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	120
Sulphur dioxide	SO ₂	New	1000
		Existing	1000
Total volatile organic compounds from vapour recovery/ destruction units (Thermal treatment).	N/A	New	150
		Existing	150

(9) *Subcategory 5.9: Alkali processes*

Description:	Primary manufacturing of potassium or sodium sulphate or the treatment of ores by chloride salts whereby hydrogen chloride gas is evolved.		
Application:	All installations producing 100 ton per annum or more.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	30
		Existing	100
Hydrogen chloride	HCl	New	30
		Existing	30

15. Category 6: Organic Chemicals Industry

(1) Subcategory 6.1: Organic chemical manufacturing

Description:	The manufacture or use in manufacture of hydrocarbons not specified elsewhere including acetylene, acetic, maleic or phthalic anhydride or their acids, carbon disulphide, pyridine, formaldehyde, acetaldehyde, acrolein and its derivatives, acrylonitrile, amines and synthetic rubber. The manufacture of organometallic compounds, organic dyes and pigments, surface-active agents, the polymerisation or co-polymerisation of any unsaturated hydrocarbons, substituted hydrocarbon (including vinyl chloride), the manufacture, recovery or purification of acrylic acid or any ester of acrylic acid, the use of toluene di-isocyanate or other di-isocyanate of comparable volatility; or recovery of pyridine.
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Application:		All installations producing or using more than 100 tons per annum, and storage tanks with cumulative tankage capacity larger than 500 cubic meters, of any or a combination of the compounds listed above.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non thermal)	N/A	New	40
		Existing	40
Sulphur trioxide (from sulphonation processes)	SO ₃	New	30
		Existing	100
Acrylonitrile (from processes producing and/or using acrylonitrile).	CH ₂ CHCN	New	5
		Existing	5
Methylamines	CH ₅ N	New	10
		Existing	10

(a) The following transitional and special arrangements shall apply:

- (i) Leak detection and repair (LDAR) program approved by licensing authority to be instituted, within one year after publication date of this Notice.

- (ii) Storage vessels for liquids shall be of the following type:

True vapour pressure of contents at storage temperature	Type of tank or vessel
Up to 14 kPa	Fixed roof tank vented to atmosphere.
Above 14 kPa up to 91 kPa	External floating roof tank with primary and secondary rim seals for tank diameter larger than 20m, or fixed roof tank with internal floating deck fitted with primary seal, or fixed roof tank with vapour recovery system.
Above 91 kPa	Pressure vessel.

- (iii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except domed floating roof tanks or internal floating roof tanks) shall have sleeves fitted to minimise emissions.
- (iv) Relief valves on pressurised storage should undergo periodic checks for internal leaks. This can be carried out using portable acoustic monitors or if venting to atmosphere with an accessible open end, tested with a hydrocarbon analyser as part of an LDAR programme.
- (v) Loading/unloading (except rail loading and unloading): All liquid products with a vapour

pressure above 14 kPa shall be loaded/unloaded using bottom loading, with the vent pipe connected to a gas balancing line. Vapours expelled during loading operations must be returned to the loading tank if it is of the fixed roof type where it can be stored prior to vapour recovery or destruction. Where vapour balancing is not possible, a recovery system utilising adsorption, absorption and condensation and/or incineration of the remaining VOC, with a collection efficiency of at least 95 % shall be fitted.

- (vi) The actual temperature in the tank must be used for vapour pressure calculations.
- (vii) Alternative control measures that can achieve the same or better results may be used.

16. Category 7: Inorganic Chemicals Industry

- (1) *Subcategory 7.1: Primary production and use in manufacturing of ammonia, fluorine, chlorine, and Hydrogen Cyanide*

Description:	Production and use in manufacturing of ammonia, fluorine, and chlorine gas.		
Application:	All installations.		
Substance or mixture of substances	Plant status	mg/Nm ³ under normal conditions of 6% O ₂ , 273	

Common name	Chemical symbol		Kelvin and 101.3 kPa.
Hydrogen fluoride	HF	New	5
		Existing	30
Chlorine	Cl ₂	New	50
		Existing	50
Ammonia	NH ₃	New	30
		Existing	100
Hydrogen Cyanide	HCN	New	0.5
		Existing	2

(2) *Subcategory 7.2: Primary production of acids*

Description:	The primary production of hydrofluoric, hydrochloric, nitric and sulphuric acid (including oleum) in concentration exceeding 10%; also processes in which oxides of sulphur are emitted through the manufacture of acid sulphites of alkalis or alkaline earths or through the production of liquid sulphur dioxide or sulphurous acid and secondary production of hydrochloric acid through regeneration		
Application:	All installations with the exception of those producing sulphuric acid as part of the recovery of metals from ore.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Primary production			
Total fluoride measured as Hydrogen Fluoride	F as HF	New	5
		Existing	30
Hydrogen chloride	HCl	New	15

		Existing	25
Sulphur dioxide	SO ₂	New	350
		Existing	2800
Sulphuric acid mist and sulphur trioxide expressed as SO ₃	SO ₃	New	25
		Existing	100
Oxides of nitrogen expressed as NO ₂	NO _x	New	350
		Existing	2000
Secondary production of hydrochloric acid*			
Hydrogen chloride	HCl	New	30
		Existing	100

(3) *Subcategory 7.3: Primary production of chemical fertilizer*

Description:		The production of superphosphates, ammonium nitrate, ammonium phosphates and ammonium sulphate and their processing into solid fertiliser mixtures (NPK mixtures).	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Total fluoride measured as Hydrogen Fluoride	F as HF	New	5
		Existing	30
Ammonia	NH ₃	New	50
		Existing	100

- (4) *Subcategory 7.4: Manufacturing activity involving the production, use in manufacturing or recovery of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, by the application of heat.*

Description:		Manufacturing activity involving the production, use or recovery of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, thallium and their salts not covered elsewhere by the application of heat, excluding their use as catalyst.	
Application:		All installations producing more than 1 ton per month.	
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	25

- (a) The following special arrangement shall apply:
- (i) Operators shall estimate the emissions of the metals using a method set out in Section 2. Where the estimated emissions exceed 10 tons per annum for any one of the metals, or 25 tons per annum for a combination of the metals, an air quality impact assessment for the emissions shall be submitted to the licensing authority annually, commencing within one year of the publication of the notice.

(5) *Subcategory 7.5: Production of calcium carbide*

Description:	Production of calcium carbide.		
Application:	All installations producing more than 10 tons per month.		
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	25
		Existing	100

(6) *Subcategory 7.6: Production of phosphorus and phosphate salts not mentioned elsewhere*

Description:	Production of phosphorus and phosphate salts.		
Application:	All installations producing more than 10 ton per month.		
Substance or mixture of substances		Plant status	mg/Nm³ under normal conditions of 6% O₂, 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	25
		Existing	50

17. Category 8: Disposal of hazardous and general waste

Description:	Facilities where general and hazardous waste including health care waste, crematoria, veterinary waste, used oil or sludge from the treatment of used oil are incinerated.		
Application:	Facilities with an incinerator capacity of 10 kg of waste processed per hour or larger capacity.		
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	10
		Existing	25
Carbon monoxide	CO	New	50
		Existing	75
Sulphur dioxide	SO ₂	New	50
		Existing	50
Oxides of nitrogen	NO _x expressed as NO ₂	New	200
		Existing	200
Hydrogen chloride	HCl	New	10
		Existing	10
Hydrogen fluoride	HF	New	1
		Existing	1
Sum of Lead, arsenic, antimony, chromium, cobalt, copper, manganese, nickel, vanadium	Pb+ As+ Sb+ Cr+ Co+ Cu + Mn+ Ni+ V	New	0.5
		Existing	0.5
Mercury	Hg	New	0.05
		Existing	0.05
Cadmium Thallium	Cd+Tl	New	0.05

		Existing	0.05
Total organic compounds	TOC	New	10
		Existing	10
Ammonia	NH ₃	New	10
		Existing	10
			ng I-TEQ /Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Dioxins and furans	PCDD/PCDF	New	0.1
		Existing	0.1

(a) The following special arrangements shall apply:

- (i) Compliance with the requirements specified under Schedule 4, Section 11.4 of the National Policy on Thermal Treatment of General and Hazardous Waste (GG No. 32439, Notice No.777 of 24 July 2009).
- (ii) Compliance time frames for health care risk waste incineration will be as specified in Section 0 unless specific compliance time frames for health care risk waste incineration have been set under health care risk waste regulations, in which case, the specific compliance time frames for health care risk waste incineration set under health care risk waste regulations shall apply.

18. Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery

(1) Subcategory 9.1: Lime recovery kiln

Description:		The recovery of lime from the thermal treatment of paper-making waste.	
Application:		All installations producing more than 1 ton per month.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 6% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	50
		Existing	100
Total reduced sulphur compounds measured as H ₂ S	H ₂ S	New	10
		Existing	10
Oxides of nitrogen	NO _x expressed as NO ₂	New	600
		Existing	2000

(2) Subcategory 9.2: Alkali waste chemical recovery furnaces

Description:		The recovery of alkali from the thermal treatment of paper-making waste.	
Application:		All installations producing more than 1 ton per month.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		

Particulate matter	N/A	New	50
		Existing	100
Hydrogen sulphide	H ₂ S	New	15
		Existing	15
Sulphur dioxide	SO ₂	New	30
		Existing	300
Oxides of nitrogen	NO _x expressed as NO ₂	New	300
		Existing	300

(3) *Subcategory 9.3: Copeland alkali waste chemical recovery process*

Description:		The recovery of alkali from the thermal treatment of paper-making waste using a Copeland process	
Application:		All installations producing more than 1 ton per month	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	No plant of this type will be authorised in the future
		Existing	100
Sulphur dioxide	SO ₂	New	No plant of this type will be authorised in the future
		Existing	800

(4) *Subcategory 9.4: Chlorine dioxide plant*

Description:		Production and use of chlorine dioxide for paper production.	
Application:		All installations.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Hydrogen chloride	HCl	New	15
		Existing	30

(5) *Subcategory 9.5: Wood drying and the production of manufactured wood products*

Description:		The drying of wood by an external source of heat; the manufacture of laminated and compressed wood products.	
Application:		All installations producing more than 10 tons per month.	
Substance or mixture of substances		Plant status	mg/Nm ³ under normal conditions of 10% O ₂ , 273 Kelvin and 101.3 kPa.
Common name	Chemical symbol		
Particulate matter	N/A	New	150
		Existing	200
Oxides of nitrogen	NO _x expressed as NO ₂	New	500
		Existing	700

19. Category 10: Animal matter processing

Description:	Processes for the rendering cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption.
Application:	All installations handling more than 1 ton of raw materials per day.

- (a) The following special arrangement shall apply:
 - (i) Best practice measures intended to minimised or avoid offensive odours must be implemented by all installations. These measures must be documented to the satisfaction of the Licensing Authority.

SCHEDULE A - METHODS FOR SAMPLING AND ANALYSIS

The following referenced documents are indispensable for the application of the Notice. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Information on currently valid national and international standards can be obtained from Standards South Africa.

- (1) ISO Standards
 - (a) ISO 7934:1989 Stationary source emissions –

- Determination of the mass concentration of sulfur dioxide - Hydrogen peroxide/barium perchlorate/Thorin method.
- (b) ISO 7934:1989/Amd 1:1998
 - (c) ISO 7935: Stationary source emissions – Determination of the mass concentration of sulfur dioxide – Performance characteristics of automated measuring method.
 - (d) ISO 9096: Stationary source emissions – Manual Determination of mass concentration of particulate matter.
 - (e) ISO 10155: Stationary source emissions – Automated monitoring of mass concentrations of particles – Performance characteristics, test methods and specifications.
 - (f) ISO 10396: Stationary source emissions – Sampling for the automated determination of gas emissions concentrations for permanently-installed monitoring systems.
 - (g) ISO 10397: Stationary source emissions – Determination of asbestos plant emissions method by fibre counting measurement.
 - (h) ISO 10780: Stationary source emissions –

Measurement of velocity volume flow rate of gas steams in ducts.

- (i) ISO 10849: Stationary source emissions – Determination of the mass concentration of nitrogen oxides – Performance characteristics of automated measureing systems.
- (j) ISO 11338-1: Stationary source emissions – Determination of gas and particle-phase polycyclic aromatic hydrocarbons Part 1: Sampling.
- (k) ISO 11338-2: Stationary source emissions – Determination of gas and particle-phase polycyclic aromatic hydrocarbons Part 2: Sample preparation, clean-up and determination.
- (l) ISO 11564: Stationary source emissions – Determination of the mass concentration of nitrogen oxides -Naphthylethylenediamine photometric method.
- (m) ISO 11632: Stationary source emissions – Determination of mass concentration of sulphur dioxide – Iron chromatography method.
- (n) ISO 12039: Stationary source emissions – Determination of carbon monoxide, carbon dioxide and oxygen – Performance characteristics and calibration of automated measuring systems.

- (o) ISO 12141: Stationary source emissions – Determination of mass concentration of particulate matter (dust) at low concentrations - Manual gravimetric method.
 - (p) ISO 14164: Stationary source emissions – Determination of the volume flow-rate of gas streams in ducts - Automated method.
 - (q) ISO 15713: Stationary source emissions – Sampling and determination of gaseous fluoride content.
- (2) EPA methods
- (a) Method 1 – Traverse Points
 - (b) Method 1A – Small Ducts
 - (c) Method 2 – Velocity - S-type Pitot
 - (d) Method 2A – Volume Meters
 - (e) Method 2B – Exhaust Volume Flow Rate
 - (f) Method 2C – Standard Pitot
 - (g) Method 2D – Rate Meters
 - (h) Method 2F – Flow Rate Measurement with 3-D Probe

- (i) Method 2G – Flow Rate Measurement with 2-D Probe
- (j) Method 2H – Flow Rate Measurement with Velocity Decay Near Stack Walls
- (k) Memo – New Test Procedures of Stack Gas Flow Rate in Place of Method 2
- (l) Method 3 – Molecular Weight
- (m) Method 3A – CO₂, O₂ by instrumental methods
- (n) Method 3B – CO₂, O₂ by Orsat apparatus
- (o) Method 3C – CO₂, CH₄, N₂, O₂ by determined by thermal conductivity
- (p) Method 4 – Moisture Content
- (q) Method 5 – Particulate Matter (PM)
- (r) Method 5D – PM Baghouses (Particulate Matter)
- (s) Method 5E – PM Fiberglass Plants (Particulate Matter)
- (t) Method 5F – PM Fluid Catalytic Cracking Unit
- (u) Method 5I – Determination of Low Level Particulate Matter Emissions

- (v) Method 6 – Sulphur Dioxide (SO₂)
- (w) Method 6A – SO₂, CO₂
- (x) Method 6B – SO₂, CO₂ - Long Term Integrated
- (y) Method 6C – SO₂ – Instrumental
- (z) Method 6C – Figures SO₂
- (aa) Method 7 – Nitrogen Oxide (NO_x)
- (bb) Method 7A – NO_x - Ion Chromatographic Method
- (cc) Method 7B – NO_x - Ultraviolet Spectrophotometry
- (dd) Method 7C – NO_x - Colorimetric Method
- (ee) Method 7D – NO_x - Ion Chromatographic
- (ff) Method 7E – NO_x – Instrumental
- (gg) Method 8 – Sulfuric Acid Mist
- (hh) Method 9 – Visual Opacity
- (ii) Method 10 – Carbon Monoxide-NDIR
- (jj) Method 10A – CO for Certifying CEMS
- (kk) Method 10B – CO from Stationary Sources

- (ll) Method 11 – H₂S Content of Fuel
- (mm) Method 12 – Inorganic Lead
- (nn) Method 13A – Total Fluoride (SPADNS Zirconium Lake)
- (oo) Method 13B – Total Fluoride (Specific Ion Electrode)
- (pp) Method 14 – Fluoride for Primary Aluminium Plants
- (qq) Method 14A – Total Fluoride Emissions from Selected Sources at Primary Aluminium Plants
- (rr) Method 15 – Hydrogen Sulfide, Carbonyl Sulfide, and Carbon Disulfide
- (ss) Method 15A – Total Reduced Sulfur (TRS Alt.)
- (tt) Method 16 – Sulfur (Semicontinuous Determination)
- (uu) Method 16A – Total Reduced Sulfur (Impinger)
- (vv) Method 16B – Total Reduced Sulfur (GC Analysis)
- (ww) Method 17 – In-Stack Particulate (PM)
- (xx) Method 18 – VOC by GC
- (yy) Method 19 – SO₂ Removal & PM, SO₂, NO_x Rates from Electric Utility Steam Generators

- (zz) Method 20 – NO_x from Stationary Gas Turbines
- (aaa) Method 21 – VOC Leaks
- (bbb) Method 22 – Fugitive Opacity
- (ccc) Method 23 – Dioxin and Furan (02/91 FR Copy).
- (ddd) Method 25 – Gaseous Nonmethane Organic Emissions
- (eee) Method 25A – Gaseous Organic Concentration (Flame Ionization)
- (fff) Method 25B – Gaseous Organic Concentration (Infrared Analyzer)
- (ggg) Method 26 – Hydrogen Chloride, Halides, Halogens
- (hhh) Method 26A – Hydrogen Halide & Halogen-Isokinetic
- (iii) Method 28A – Air to Fuel Ratio, Burn Rate - Wood-fired Appliances
- (jjj) Method 29 – Metals Emissions from Stationary Sources
- (kkk) Method 101 – Mercury from Chlor-Alkali Plants (Air)
- (lll) Method 101A – Mercury from Sewage Sludge Incinerators

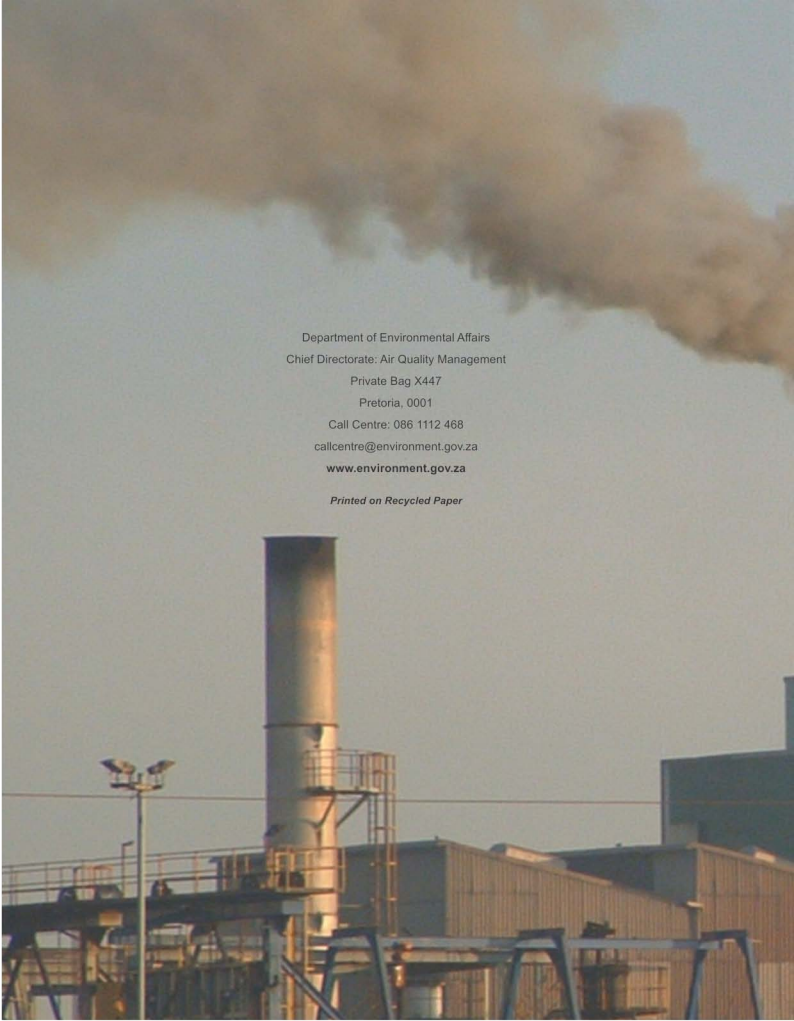
- (mmm) Method 102 – Mercury from Chlor-Alkali Plants (Hydrogen Streams)
 - (nnn) Method 103 – Beryllium Screening Method
 - (ooo) Method 104 – Beryllium Emissions Determination
 - (ppp) Method 106 – Determination of Vinyl Chloride
 - (qqq) Method 107A – Vinyl Chloride content of Solvents
 - (rrr) Method 108 – Particulate & Gaseous Arsenic emissions
 - (sss) Method 108B – Arsenic
 - (ttt) Method 108C – Arsenic
 - (uuu) Methods 203A, B, and C – Opacity Determination for Time-Averaged Regulations
 - (vvv) Method 303 – By-product Coke Oven Batteries
- (3) British standards
- (a) BS 3405:1983 Method for measurement of particulate emission including grit and dust (simplified method).

- (b) BS EN 14181:2004 Stationary source emissions. Quality assurance of automated measuring systems.
- (c) BS EN 15259: Air quality. Measurement of stationary source emissions. Measurement strategy, measurement planning, reporting and design of measurement sites.
- (d) BS EN 15267-1: Air quality. Certification of automated measuring systems. General principles.
- (e) BS EN 15267-2: Air quality. Certification of automated measuring systems. Initial assessment of the AMS manufacturer's quality management system and post certification surveillance for the manufacturing process.
- (f) BS EN 15267-3: Air quality. Certification of automated measuring systems. Performance criteria and test procedures for automated measuring systems for monitoring emissions from stationary sources.

AQA NOTICES AND REGULATIONS AS AT 31 MARCH 2010

AQA NOTICES AND REGULATIONS	DATE	GAZETTE NUMBER
Commencement notice of certain sections of the AQA (excluding sections 21, 22, 36 to 49, 51(1)(e), 51(1)(f), 51(3), 60 and 61)	09 September 2005	28016
Vaal Triangle Air-Shed Priority Area Declaration	21 April 2006	28732
Correction Notice: Substitution of the map describing the boundaries of the VTAPA	17 August 2007	30164
Highveld Priority Area declaration	23 November 2007	30518
National Framework for air quality management in the Republic of South Africa	11 September 2007	30284
VTAPA air quality management plan	28 May 2009	32263

AQA NOTICES AND REGULATIONS	DATE	GAZETTE NUMBER
Regulations implementing and enforcing the VTAPA AQMP	29 May 2009	32254
National ambient air quality standards	24 December 2009	32816
Minister's notice bringing the remainder of the AQA into operation, namely, sections 21, 22, chapter 5, 51(1)(e), 51(1)(f), 51(3), 60 and 61 (APPA repealed)	26 March 2010	33041
National list of activities and associated minimum emission standards	31 March 2010	33064



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