environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

CONTENTS

AN INTRODUCTION TO THE NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004 (ACT NO. 39 OF 2004) AS AMENDED ("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. As contemplated in the AQA, the National Framework must be reviewed by the Minister at intervals of not more than five years. In this regard, the Minister of Water and Environmental Affairs published the second generation National Framework for Air Quality Management on 29 November 2012. 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 notices (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 National Air Quality Advisory Committee whose object is to advise the Minister on any air quality related matter as the Minister may determine from time to time. 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 a provisional atmospheric emission licence or an atmospheric emission licence. Part 2 also details the consequences of the unlawful conduct of a listed activity resulting in atmospheric emissions.

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 specific greenhouse gases, as priority air pollutants and require all industries emitting the same to develop and implement pollution prevention plans in respect of those gases. In addition, persons are required to monitor, evaluate and report on the implementation of their pollution prevention plans.

(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 Environmental Laws Amendment Act 44 of 2008
[with effect from 11 September 2009 - GN 902 / GG 32563 / 20090911]
National Environmental Laws Amendment Act 14 of 2009
[with effect from 18 September 2009 - Proc. 65 / GG 32580 / 20090918]
National Environmental Management Laws Amendment Act 14 of 2013
[With effect from 24 July 2013- GG 36703 / 20130724]
National Environmental Management: Air quality amendment Act 20 of 2014
[With effect from 19 May 2014 -GG 37666 / 20140519]
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: -

TABLE OF CONTENTS

Sections

CHAPTER 1

INTERPRETATION AND FUNDAMENTAL PRINCIPLES

CHAPTER 2
NATIONAL FRAMEWORK AND NATIONAL, PROVINCIAL AND LOCAL STANDARDS

Part 1: National framework

CHAPTER 5
LICENSING OF LISTED ACTIVITIES

CHAPTER 6
INTERNATIONAL AIR QUALITY MANAGEMENT

CHAPTER 7
OFFENCES AND PENALTIES

CHAPTER 1

INTERPRETATION AND FUNDAMENTAL PRINCIPLES

1. Definitions

(1) 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);

"commissioning" means the commencement of a listed activity;

[Definition of "Commissioning" inserted by section 1(a) of Act 20/2014]

"controlled emitter" means any appliance or activity declared as a controlled emitter in terms of section 23;

"Department" means the Department responsible for environmental affairs;[Definition of "Department" substituted by section 1(b) of Act 20/2014]

"environment" has the meaning assigned to it section 1 of the National Environmental Management Act;

"Environment Conservation Act" [Definition of "Environmental Conservation Act" deleted by section 1(c) of Act 20/2014]

"*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), 3A, (4) or (5) responsible for implementing the licensing system set out in Chapter 5;
[Definition of "licensing authority" substituted by section 1(d) of Act 20/2014]

"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 responsible for Environmental Affairs; **[**Definition of "Minister" substituted by section 1(e) of Act 20/2014]

"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;
(v) 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 must, by notice in the *Gazette*, establish the National Air Quality Advisory Committee in terms of this Act.
[Subsection 1 substituted by section 2(a) of Act 20/2014]

(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 prescribe any other matter relating to the Committee.
[Paragraph (d) substituted by section 2(b) of Act 20/2014]

(3) The object of the Committee is to advise the Minister on any air quality related matter as the Minister may determine from time to time.
[Subsection (3) added by section 2(c) of Act No. 20 of 2014]

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;

(iii) the area extends beyond provincial boundaries; or

(iv) 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

(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 reasonably 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.

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

22. Consequences of listing

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.

22A. Consequences of unlawful conduct of listed activity resulting in atmospheric emission

(1) Section 24G of the National Environmental Management Act,1998, as amended, applies to the commencement, without an environmental authorisation, of a listed activity or the activity specified in item 2 in Listing Notice 1 and items 5 and 26 in Listing Notice 2, relating to air quality in terms of Chapter 5 of the National Environmental Management Act, 1998.

(2) Subsections (4) to (10) are applicable to the operating, without a provisional registration or registration certificate, of a scheduled process in terms of the Atmospheric Pollution Prevention Act, 1965, at any time prior to the commencement of this Act.

(3) Subsections (4) to (10) are applicable to the conducting, without a provisional atmospheric emission licence or an atmospheric emission licence, of an activity listed in terms of section 21 of this Act which results in atmospheric emission.

(4) On application by a person who conducted an activity contemplated in subsection (2) or (3), the licensing authority may direct the applicant to—

(a) immediately cease the activity pending a decision on the application submitted in terms of this section;

(b) investigate, evaluate and assess the impact of the activity on the environment, including the ambient air and human health;

(c) remedy any adverse effect of the activity on the environment, including the ambient air, and human health;

(d) cease, modify or control any act, activity, process or omission causing atmospheric emission;

(e) eliminate any source of atmospheric emission;

(f) compile a report containing—

(i) a description of the need and desirability of the activity;

(ii) an assessment of the nature, extent, duration and significance of the consequences for or impacts on the environment, including the ambient air, and human health of the activity, including the cumulative effects and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity;

(iii) a description of mitigation measures undertaken or to be undertaken in respect of the consequences for or impacts on the environment, including the ambient air, and human health of the activity;

(iv) a description of the public participation process followed during the course of compiling the report, including all comments received from interested and affected parties and an indication of how issues raised have been addressed;

(v) an environmental management programme; or

(g) provide such other information or undertake such further studies as the licensing authority may deem necessary.

(5) The licensing authority must consider any reports or information submitted in terms of subsection (4) and thereafter may—

(a) refuse to issue an atmospheric emission licence;

(b) issue an atmospheric emission licence to such person to conduct the activity subject to such

conditions as the licensing authority may deem necessary, which atmospheric emission licence shall only take effect from the date on which it has been issued; or

(c) direct the applicant to provide further information or take further steps prior to making a decision in terms of paragraphs *(a)* or *(b)*.

(6) The licensing authority may as part of the decision contemplated in subsection (5), direct a person to—

(a) rehabilitate the environment within such time and subject to such conditions as the licensing authority may deem necessary;

(b) prevent or eliminate any source of atmospheric emission from the activity within such time and subject to such conditions as the licensing authority may deem necessary; or

(c) take any other steps necessary under the circumstances.

(7) A person contemplated in subsection (4) must pay an administrative fine, which may not exceed R5 million and which must be determined by the licensing authority, before the licensing authority may act in terms of subsection 5*(a)* or *(b)*.

(8) In considering a decision contemplated in subsection (5)*(a)* or *(b)*, the licensing authority may take into account whether or not the applicant complied with any directive issued in terms of subsections (4) or (5)*(c)*.

(9) The submission of an application in terms of subsection (4) or the issuing of an atmospheric emission licence in terms of subsection 5*(b)* or the payment of the administrative fine in terms of subsection (7) shall—

(a) in no way derogate from the environmental management inspector's or the South African Police Services' authority to investigate any transgression of this Act; or

(b) in no way derogate from the National Prosecuting Authority's legal authority to institute any criminal prosecution; and

(c) not indemnify the applicant from liability in terms of section 51(1)*(a)* for having contravened section 22.

(10) If, at any stage after the submission of an application in terms of subsection (4), it comes to the attention of the licensing authority, that the applicant is under criminal investigation for the contravention of or failure to comply with section 22, the licensing authority may defer a decision to issue an atmospheric emission licence until such time that the investigation is concluded and—

(a) the National Prosecuting Authority has decided not to institute prosecution in respect of such contravention or failure;

(b) the applicant concerned is acquitted or found not guilty after prosecution in respect of such contravention or failure has been instituted; or

(c) the applicant concerned has been convicted by a court of law of an offence in respect of such

contravention or failure and the applicant has in respect of the conviction exhausted all the recognised legal proceedings pertaining to appeal or review.
[Section 22A inserted by section 3 of Act 20/2014]

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

(c) 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, bioaccumulation, 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.

(4) A notice contemplated in subsection (1)*(b)* or (2) must contain a requirement that the person indicated in the notice monitors, evaluates and reports on the

implementation of the pollution prevention plan that has been approved in terms of subsection (1) or (2).
[Sub-section 4 added by section 4 of Act 20/2014]

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 section 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) [Subsection (3) deleted by section 5(a) of Act 20/2014]

(3A) (a) In accordance with sections 125(2)*(b)* and 156(1)*(b)* of the Constitution whenever a licensing authority fails to take a decision on an application for an atmospheric emission licence within the time period set out in section 40(3) or (3A) of this Act, the person that applied for an atmospheric emission licence may apply to the Minister or MEC, as the case may be, to take the decision.

(b) The person contemplated in paragraph (a) must notify the licensing authority in writing of the intention to exercise the option in paragraph (a) at least 30 days prior to the exercising of such option.

(c) The application contemplated in paragraph (a) must, at least, contain all the documents submitted to the licensing authority in order to enable the Minister or MEC, as the case may be, to take a decision.

(d) Before taking a decision as contemplated in paragraph (a), the Minister or MEC must request the licensing authority to provide him or her with a report

within a specified time period on the status and causes of delay in the application.

(e) After having received the report referred to in paragraph (d) or in the event that no response or no satisfactorily response or cooperation is received from the licensing authority within the specified time period the Minister or MEC, as the case may be, must, where appropriate—

(i) inform the person that applied for an atmospheric emission licence in the event that the licensing authority has complied with the relevant prescripts;

(ii) assist the licensing authority in accordance with sections 125(3) and155(7) of the Constitution to fulfil its obligations under this Act; or

(iii) direct the licensing authority to take the decision and such other steps as the Minister or MEC, as the case may be, may deem necessary, within a specified time period.

(f) In the event that the licensing authority fails to take the decision within the specified time period or in any other manner fails to comply with the directive contemplated in paragraph (e)(iii), the Minister or MEC, as the case may be, must take the decision within a reasonable period of time.

(g) The Minister or MEC, as the case may be, must, simultaneously with the submission of the annual report contemplated in section 40(1)(d)(i) of the

Public Finance Management Act, 1999 (Act No. 1 of 1999), submit a report to Parliament or Provincial Legislature, as the case may be, setting out the details regarding the exercise of the power to in this section during the previous financial year.

[Subsection (3A) inserted by section 5(b) of Act 20/2014]

(3B) The MEC or Minister, as the case may be, must make a decision on the application contemplated in subsection (3A)*(a)*, within a reasonable period of time from the date of receipt of the application.

[Subsection (3B) inserted by section 5(b) of Act 20/2014]

(3C) In the event that the MEC fails to make a decision on the application, within a reasonable period of time, as contemplated in subsection (3B), the applicant may submit the application to the Minister for a decision in terms of subsection (3A)*(a)*.

[Subsection (3C) inserted by section 5(b) of Act 20/2014]

(3D) In the event that the MEC does not have capacity to exercise the power, or for any good reason is unable to do so or to do so within a reasonable period of time, the MEC may request, in writing, the Minister to exercise the power in terms of subsection (3A)*(a)*

[Subsection (3D) inserted by section 5(b) of Act 20/2014]

(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.

(5) Notwithstanding subsections (1) to (4), the Minister is the licensing authority and must perform the functions of the licensing authority if—

(a) a provincial organ of state, which has been delegated the power to perform the licensing authority function in terms of subsection (2) by the metropolitan or district municipality, applies for an atmospheric emission licence;

(b) the listed activity falls within the boundaries of more than one province;

(c) the listed activity forms part of a matter declared as a national priority in terms of a Cabinet decision and notice referred to in section 24C(2B) of the National Environmental Management Act,1998, as amended by the National Environmental Management Laws Second Amendment Act, 2013;

(d) the listed activity relates to the activities listed in terms of section 24(2) of the National Environmental Management Act, 1998, or in terms of section 19(1) of the National Environmental Management: Waste Act, 2008, or the Minister has been identified as the competent authority; or

(e) the listed activity relates to a prospecting, mining, exploration or production activity as contemplated in the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), in the area for which the right has been applied for, and the Minister

responsible for mineral resources has been identified as the competent authority in terms of section 24C of the National Environmental Management Act, 1998.
[Subsection (5) added by section 5(c) of Act 20 of 2014]

(6) For the purposes of subsection (5)*(d)*, the Minister, as the competent authority empowered under section 24C(2) of the National Environmental Management Act, 1998 and as the licensing authority empowered under section 43(1) of the National Environmental Management: Waste Act, 2008, may issue an integrated environmental authorisation for the activities listed under section 24(2) of the National Environmental Management Act, 1998 and section 19(1) of the National Environmental Management: Waste Act, 2008.
Subsection (6) added by section 5(c) of Act 20 of 2014]

(7) An integrated environmental authorisation contemplated in subsection (6) may be issued only if—
(a) the relevant provisions of this Act, the National Environmental Management Act, 1998, and the National Environmental Management: Waste Act, 2008, have been complied with; and
(b) the integrated environmental authorisation specifies the provisions in terms of which it has been issued.
[Subsection (7) added by section 5(c) of Act 20 of 2014]

(8) The Minister and the licensing authority contemplated in subsections (1) to (4) may agree that an application for an atmospheric emission licence with regard to any activity contemplated in section 22 may be dealt with by the Minister or the relevant licensing authority contemplated in subsections (1) to (4).
[Subsection (8) added by section 5(c) of Act 20 of 2014]

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 applies to all applications for atmospheric emission licences, which are subject to an environmental impact assessment in terms of section 24 of the National Environmental Management Act, and both an applicant and the licensing authority must comply with that section and any applicable notice issued or regulation made in relation to that section.
[Subsection (2) substituted by section 6(a) of Act 20 of 2014]

(3) (a) An applicant must, immediately after the submission of the application to the licensing authority, take appropriate steps to bring the application to the attention of relevant organs of state, interested persons and the public.
[Paragraph (a) substituted by section 6(b) of Act 20 of 2014]

(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;

(ii) indicating where a copy of the application can be obtained;
[Subparagraph (iiA) inserted by section 6(c) of Act 20 of 2014]

(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.

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 any applicable environmental impact assessment done, the decision taken on the application of the environmental authorisation, and any applicable notice issued or regulation made pursuant to that section
[Paragraph (d) substituted by section 7 of Act 20 of 2014]

(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 any applicable environmental impact assessment done, the decision taken on the application for the environmental authorisation, and any applicable notice issued or regulation made pursuant to that section;
[Paragraph (c) substituted by section 8(a) of Act 20 of 2014]

(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 the decision on the relevant application for an environmental authorisation has been made in terms of section 24 of the National Environmental Management Act, the licensing authority must decide the application within 60 days of the date on which the decision on the application for the environmental authorisation has been made.
[Subsection 3 substituted by section 8(b) of Act 20 of 2014]

(3A) Where the listed activity relates to a prospecting, mining, exploration or production activity contemplated in the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), in the area for which the right has been applied for, and the Minister responsible for mineral resources has been identified as the competent authority in terms of section 24C of the National Environmental Management Act, 1998, the Minister, after consultation with the licensing authority contemplated in section 36(1) and (2) of this Act, must decide the application within the

timeframes set out in the National Environmental Management Act, 1998
[Subsection 3A inserted by section 8(c) of Act 20 of 2014]

(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.

(3) A provisional atmospheric emission licence is valid for a period of one year from the date of the commissioning of the listed activity, and may be extended for an additional one year on good cause shown to the licensing authority.
[Subsection 3 added by section 9 of Act 20 of 2014]

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.

[Subsection (1) substituted by section 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.
[Subsection (2) substituted by section 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; or
[Paragraph (c) substituted by section 49 of Act 14/2009] [Paragraph (c) substituted by section 10 of Act 20/2014]

(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, 25,28 or 35(2); [Paragraph (a) substituted by section 11 of Act 20/2014]

(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) contravenes or fails to comply with a condition or requirement of an atmospheric emission licence;
(Commencement date of paragraph (e): 1 April 2010)

(f) supplies false or misleading information in any application for an atmospheric emission licence, or for the transfer, variation or renewal of such a licence;
(Commencement date of paragraph (f): 1 April 2010)

(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) 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.
(Commencement date of subsection (3): 1 April 2010)

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.
[Subsection (1) substituted by section 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.

[Subsection (2) substituted by section 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.

[Subsection (3) added by section 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 and climate change ;

[Paragraph (a) substituted by section 12(a) of Act 20/2014]

*(a*A*)* information relating to energy that is required for compiling atmospheric emissions;

[Paragraph (aA) inserted by section 12(b) of Act 20/2014]

(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;

(lA) the procedure and criteria to be followed in the determination of an administrative fine in terms of section 22A;

[Paragraph (lA) inserted by section 12(c) of Act 20/2014]

(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 in the case of a first conviction to a fine not exceeding R5 million 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 and in respect of both instances to both such fine and such imprisonment.
[Subsection 2 substituted by section 37 of Act 14 of 2013]

(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.

(b) 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.

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. [Section 62 repealed by section 13 of Act 20 of 2014]

63. [Section 63 repealed by section 14 of Act 20 of 2014]

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.

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 section 8 of Act 44/2008]

SCHEDULE 2

(Section 63)
[Schedule 2 repealed by section 15 of Act 20 of 2014]

GOVERNMENT NOTICES
GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF ENVIRONMENTAL AFFAIRS
DEPARTEMENT VAN OMGEWINGSAKE

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 at a specific monitoring location, i.e. if exceedences of limit value are within the tolerances, then there is still compliance with the standard. This exceedence is 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 within a given compliance period and not to be exceeded once attained.

2. GENERAL

2.1 Reference conditions

Concentrations shall be expressed at a standardised 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 a 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 (SO_2)

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 (NO_2)

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 (PM_{10})

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 December 2014
1 year	40 µg/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 µg/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 (C_6H_6)

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			

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

No. 486 **29 June 2012**

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

NATIONAL AMBIENT AIR QUALITY STANDARD FOR PARTICULATE MATTER WITH AERODYNAMIC DIAMETER LESS THAN 2.5 MICRON METRES (PM2.5)

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, in terms of section 9(1) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), hereby establishes the national ambient air quality standard for particulate matter of aerodynamic diameter less than 2.5 micron metre ($PM_{2.5}$) as set out in the Schedule hereto.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

1. DEFINITIONS

(1) In this notice, unless the context indicates otherwise, a word or expression to which a meaning has been assigned in the National Environmental Management: Air Quality Act, 2004, has the same meaning, and —

"averaging period" means a period over which an average value is determined;

"compliance date" means the date on which compliance with the standard is required; and

"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. This exceedence is applicable to a calendar year.

2. GENERAL

(1) Reference conditions

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

(2) Reference methods

Where test methods are specified, any other method which can be demonstrated to give equivalent results may be used.

(3) **Ambient air quality measurement requirements**

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

National Ambient Air Quality Standard for Particulate Matter ($PM_{2.5}$)

Averaging Period	Concentration	Frequency of Exceedence	Compliance Date
24 hours	65 µg/m^3	4	Immediate - 31 December 2015
24 hours	40 µg/m^3	4	1 January 2016 - 31 December 2029
24 hours	25 µg/m^3	4	1 January 2030
1 year	25 µg/m^3	0	Immediate - 31 December 2015
1 year	20 µg/m^3	0	1 January 2016 - 31 December 2029
1 year	15 µg/m^3	0	1 January 2030
The reference method for the determination of $PM_{2.5}$ fraction of suspended particulate matter shall be EN 14907			

GOVERNMENT NOTICE

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

No. 893 **22 November 2013**

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, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby amend the 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 published under Government Notice No. 248, Gazette No. 33064 dated 31 March 2010, in terms of section 21(1) (b) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), set out in the Schedule hereto.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

TABLE OF CONTENTS

(5) *Subcategory 1.5: Reciprocating Engines*
(6) *Subcategory 1.6: Waste Co-feeding Combustion Installations*

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*
(2) *Subcategory 2.2: Catalytic Cracking Units*
(3) *Subcategory 2.3: Sulphur Recovery Units*
(4) *Subcategory 2.4: Storage and Handling of Petroleum Products*
(5) *Subcategory 2.5: Industrial Fuel Oil Recyclers*

Category 3: Carbonization and Coal Gasification

(1) *Subcategory 3.1: Combustion Installations*
(2) *Subcategory 3.2: Coke Production*
(3) *Subcategory 3.3: Tar Processes*
(4) *Subcategory 3.4 Char, Charcoal and Carbon Black Production*
(5) *Subcategory 3.5 Electrode Paste Production*
(6) *Subcategory 3.6 Synthetic Gas Production and Cleanup*

Category 4: Metallurgical Industry

(1) *Subcategory 4.1: Drying and Calcining*
(2) *Subcategory 4.2: Combustion Installations*
(3) *Subcategory 4.3: Primary Aluminium Production*
(4) *Subcategory 4.4: Secondary Aluminium Production*
(5) *Subcategory 4.5: Sinter Plants*
(6) *Subcategory 4.6: Basic Oxygen Furnaces*
(7) *Subcategory 4.7: Electric Arc Furnaces (Primary and Secondary)*

(8) *Subcategory 4.8: Blast Furnaces*
(9) *Subcategory 4.9: Ferro-alloy Production*
(10) *Subcategory 4.10: Foundries*
(11) *Subcategory 4.11: Agglomeration Operations*
(12) *Subcategory 4.12: Pre-Reduction and Direct Reduction*
(13) *Subcategory 4.13: Lead Smelting*
(14) *Subcategory 4.14: Production and Processing of Zinc, Nickel and Cadmium*
(15) *Subcategory 4.15: Processing of Arsenic, Antimony, Beryllium, Chromium and Silicon*
(16) *Subcategory 4.16: Smelting and Converting of Sulphide Ores*
(17) *Subcategory 4.17: Precious and Base Metal Production and Refining*
(18) *Subcategory 4.18: Vanadium Ore Processing*
(19) *Subcategory 4.19: Production and or Casting of Bronze, Brass and Copper*
(20) *Subcategory 4.20: Slag Processes*
(21) *Subcategory 4.21: Metal Recovery*
(22) *Subcategory 4.22: Hot Dip Galvanizing*
(23) *Subcategory 4.23: Metal Spray*

Category 5: Mineral Processing, Storage and Handling

(1) *Subcategory 5.1: Storage and Handling of Ore and Coal*
(2) *Subcategory 5.2: Drying*
(3) *Subcategory 5.3: Clamp Kilns for Brick Production*
(4) *Subcategory 5.4: Cement Production (using conventional fuels and raw materials)*
(5) *Subcategory 5.5: Cement Production (using alternative fuels and/or resources)*
(6) *Subcategory 5.6: Lime Production*
(7) *Subcategory 5.7: Lime Production (using alternative fuels and/or resources)*
(8) *Subcategory 5.8: Glass and Mineral Wool Production*

(9) Subcategory 5.9: Ceramic Production
(10) Subcategory 5.10: Macadam Preparation
(11) Subcategory 5.11: Alkali Processes

Category 6: Organic Chemicals Industry

Category 7: Inorganic Chemicals Industry

(*1) Subcategory 7.1: Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide*
(2) Subcategory 7.2: Production of Acids
(3) Subcategory 7.3: Production of Chemical Fertilizer
(4) Subcategory 7.4: Production, Use in Production or Recovery of Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Lead, Mercury, and or Selenium, by the Application of Heat
(5) Subcategory 7.5: Production of Calcium Carbide
(6) Subcategory 7.6: Production or Use of Phosphorus and Phosphate Salts not mentioned elsewhere
(7) Subcategory 7.7: Production of Caustic Soda

Category 8: Thermal Treatment of Hazardous and General Waste

(1) Subcategory 8.1: Thermal Treatment of General and Hazardous Waste
(2) Subcategory 8.2: Crematoria and Veterinary Waste Incineration
(3) Subcategory 8.3: Burning Grounds
(4) Subcategory 8.4: Drum Recycling Processes

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

(*1)* *Subcategory 9.1: Lime Recovery Kiln*
(2) *Subcategory 9.2: Chemical Recovery Furnaces*
(3) *Subcategory 9.3: Chemical Recovery Copeland Reactors*
(4) *Subcategory 9.4: Chlorine Dioxide Plants*
(5) *Subcategory 9.5: Wood Burning, Drying and the Production of Manufactured Wood Products*

Category 10: Animal Matter Processing

ANNEXURE A: METHODS FOR SAMPLING AND ANALYSI
Repeal of the 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, 2010

Short tittle and commencement

Definitions

In this Notice a word or expression to which a meaning has been assigned in this 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 wastes which are used to substitute conventional or primary fossil fuels and/or virgin raw materials in cement kilns and other industrial thermal processes.

"atmospheric emission license" means an atmospheric emission license contemplated in Chapter 5 of this 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.

"bottom loading" means the transfer of compounds in a liquid state to a suitable vessel by filling from the bottom by means of bottom valve or from the top utilizing a transfer pipe extended to the bottom of the vessel.

"design capacity" means capacity as installed.

"**existing plant**" unless where specified, shall mean any plant or process that was legally authorized to operate before 01 April 2010 or any plant where an application for authorisation

in terms of the National Environmental Management Act, 1998 (Act No.107 of 1998), was made before 01 April 2010.

"**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 license has been issued, other than those emitted from a point source.

"incineration" means any method, technique or process to convert waste to flue gases and residues by means of oxidation.

"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 this act.

"**listed activities**" includes the singular.

"**new plant**" unless where specified, 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), was made on or after 01 April 2010.

"normal operating condition" means any condition that constitutes operation as designed.

"non-thermal treatment of volatile organic compounds" means the removal of volatile organic compounds through non-combustion processes including but not limited to cryogenic cooling, scrubbing and vapour recovery.

"**oxides of nitrogen (NO_x)**" means the sum of nitrogen oxide (NO) and nitrogen dioxide (NO_2) expressed as nitrogen dioxide (NO_2)

"**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 Annexure A.

"**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, chlorobenzene, aniline, methylene diphenyl diisocyanate (mdi), toluene di-isocyanate or other di-isocynates 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.

"point of compliance" means any point within the off gas line, where a sample can be taken, from the last vessel closest to the point source of an individual listed activity to the open-end of the point source or in the case of a combinations of listed activities sharing a common point source, any point from the last vessel closest to the point

source up to the point within the point source prior to the combination/interference from another Listed Activity**.**

"pyrolysis" means the decomposition of a material by heat in the absence of oxygen.

"SANAS" means the South African National Accreditation System established by Section 3 of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act No. 19 of 2006).

"**sulphur recovery plant**" means a 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 sulphur containing compounds.

"thermal treatment" means incineration, co-processing and other high temperature treatment of hazardous and general waste.

"thermal treatment of volatile organic compounds" means the destruction of volatile organic compounds through combustion processes.

"total volatile organic compounds" means organic compounds listed under US- EPA Compendium Method TO - 14.

"**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.

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 operating 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), shall apply unless otherwise specified by the Licensing Authority.

Averaging Period

(4) Unless where otherwise 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.

Emission measurement

(5) The manner in which measurements of minimum emissions standards, as required by Section 21(3)(a)(ii) of this Act, shall be carried out must be in accordance with the standard sampling and analysis methods listed in Annexure A of this Notice.

(6) Methods other than those contained in Annexure A may be used with the written consent of the National Air Quality Officer.

(7) In seeking the written consent referred to in paragraph (6), an applicant must provide the National Air Quality Officer with any information that supports the equivalence of the method other than that contained in Annexure A to a method contained in Annexure A.

Compliance time frames

(8) New plant must comply with the new plant minimum emission standards as contained in Part 3 from 01 April 2010.

(9) Existing plant must comply with minimum emission standards for existing plant as contained in Part 3 by 01 April 2015, unless where specified.

(10) Existing plant must comply with minimum emission standards for new plant as contained in Part 3 by 01 April 2020, unless where specified.

Postponement of compliance time frames

(11) As contemplated in the National Framework for Air Quality Management in the Republic of South Africa, published in terms of Section 7 of this Act, an application may be made to the National Air Quality Officer for the postponement of the compliance time frames in paragraphs (9) and (10) for an existing plant.

(12) The application contemplated in paragraph (11) must include –

(a) An air pollution impact assessment compiled in accordance with the regulations prescribing the format of an Atmospheric Impact Report (as contemplated in Section 30 of the AQA), 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 concluded public participation process undertaken as specified in the NEMA Environmental Impact Assessment Regulations

(13) The National Air Quality Officer, with the concurrence of the Licensing Authority as contemplated in Section 36 of this Act, may grant a postponement of the compliance time frames in paragraphs (9) and (10) for an existing plant for a period, not exceeding 5 years per postponement.

(14) 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 paragraph (13) 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 –
(ii) representations from the affected plant; and
(iii) representations from the affected communities.

Compliance monitoring

(15) Where continuous emission monitoring is required for a listed activity –

(a) the averaging period for the purposes of compliance monitoring shall be expressed on a daily average basis or as prescribed in the Atmospheric Emission License.

(b) the emission monitoring system must be maintained to yield a minimum of 80% valid hourly average values during the reporting period.

(c) the emission monitoring system must be maintained and calibrated as per the original equipment manufacturers' specifications.

(d) continuous emission monitoring systems must be audited by a SANAS accredited laboratory at least once every two (2) years.

(16) Where periodic emission monitoring is required for a listed activity –

(a) the averaging period for the purposes of compliance monitoring shall be expressed on a hourly average basis or as prescribed in the Atmospheric Emission License.

(b) emission measurement will be conducted in accordance with paragraphs (5); (6); and (7) of this notice.

(c) measurements shall take place on, at least, an annual basis unless otherwise prescribed in the Atmospheric Emission License.

(d) sampling will take place under normal operating conditions using the permitted feed-stock or raw material.

(e) all tests will be conducted by SANAS accredited laboratories or laboratories accredited by similar foreign authorities.

Reporting Requirements

(17) Notwithstanding the compliance time frames established in terms of paragraphs (8); (9); and (10), 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.

(18) The report contemplated in paragraph (17) 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, the report contemplated in paragraph (17) shall further include –

(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 (Nm^3) 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 three (3) 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 three (3) 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 paragraphs (5); (6); and (7).

(c) Where continuous emission monitoring is required for a listed activity, the report contemplated in paragraph (17) shall further include –

(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 (15)(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 paragraphs (8); (9); and (10), an explanation of all instances where minimum emission standards were exceeded and remediation measures and associated implementation plans aimed at ensuring that the accidences do not re-occur.

(e) Any other relevant information as required by the National Air Quality Officer from time to time.

(19) In January 2014, the National Air Quality Officer will establish an internet-based National Atmospheric Emissions Inventory System. Once established, the reports contemplated in paragraph (17) must be made in the format required for the internet-based National Atmospheric Emissions Inventory System.

General special arrangement

(20) 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

Category 1: Combustion Installations

1. Subcategory 1.1: Solid Fuel Combustion Installations

Description:	Solid fuels 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

(a) The following special arrangement shall apply –

(i) Continuous emission monitoring of PM, SO_2 and NO_X is required, however, installations less than 100 MW heat input per unit must adhere to periodic emission monitoring as stipulated in Part 2 of this Notice.

(ii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

2. Subcategory 1.2: Liquid Fuel Combustion Installations

Description:	Liquid fuels 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 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

(a) The following special arrangements shall apply –

(i) Reference conditions for gas turbines shall be 15% O_2, 273K and 101.3kPa

(ii) Continuous emission monitoring of PM, SO_2 and NO_X is required, however, installations less than 100 MW heat input per unit must adhere to periodic emission monitoring as stipulated in Part 2 of this Notice.

(iii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

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

(a) The following special arrangements shall apply –

(i) Continuous emission monitoring of PM, SO_2 and NO_X is required, however, installations less than 100 MW heat input per unit must adhere to periodic emission monitoring as stipulated in Part 2 of this Notice.

(ii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste

Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

4. Subcategory 1.4: Gas Combustion Installations

Description:	Gas combustion (including gas turbines burning natural gas) 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 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% O_2, 273K and 101.3kPa.

(ii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs,

additional requirements under subcategory 1.6 shall apply.

5. Subcategory 1.5: Reciprocating Engines

Description:	Liquid and gas fuel stationary engines used for electricity generation.		
Application:	All installations with design capacity equal to or greater than 10 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 15% O_2 , 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	50
		Existing	50
Oxides of nitrogen	NO_X expressed as NO_2	New	2000* 400**
		Existing	2000* 400**
Sulphur dioxide	SO_2	New	1170*
		Existing	1170*
*Liquid fuels fired **Gas fired			

6. Subcategory 1.6: Waste Co-feeding Combustion Installations

Description:	Combustion installations co-feeding waste with conventional fuels in processes used primarily for steam raising or electricity generation.		
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**		

Description:	Combustion installations co-feeding waste with conventional fuels in processes used primarily for steam raising or electricity generation.		
Application:	All installations.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal**
Carbon monoxide	CO	New	50
		Existing	75
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

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 (furnaces and heaters).
Application:	All refinery furnaces and heaters.

Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 10% O_2 , 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	70
		Existing	120
Oxides of nitrogen	NO_X expressed as NO_2	New	400
		Existing	1700
Sulphur dioxide	SO_2	New	1000
		Existing	1700

(a) The following special arrangements shall apply –

(i) No continuous flaring of hydrogen sulphide-rich gases shall be allowed.

(ii) A bubble cap of all Combustion Installations and Catalytic Cracking Units shall be at 1.2 Kg SO_2/ ton for existing plants.

(iii) A bubble cap of all Combustion Installations and Catalytic Cracking Units shall be at 0.4 Kg SO_2/ ton for new plants.

2 Subcategory 2.2: Catalytic Cracking Units

Description:	**Refinery catalytic cracking units.**		
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	100
		Existing	120
Oxides of nitrogen	NO_X expressed as NO_2	New	400
		Existing	550
Sulphur dioxide	SO_2	New	1500
		Existing	3000

(a) The following special arrangements shall apply –

(i) A bubble cap of all Combustion Installations and Catalytic Cracking Units shall be at 1.2 Kg SO_2/ ton for existing plants.

(ii) A bubble cap of all Combustion Installations and Catalytic Cracking Units shall be at 0.4 Kg SO_2/ ton for new plants.

3 Subcategory 2.3: Sulphur Recovery Units

Description:	**Sulphur Recovery Units**		
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**		
Hydrogen Sulphide	H_2S		a
			a

(a) The following special arrangement shall apply –

Sulphur recovery units should achieve 95% recovery efficiency and availability of 99%.

4. *Subcategory 2.4: Storage and Handling of Petroleum Products*

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature: –
Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (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:

Application	**All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.**
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m^3 per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m^3 per annum	a) External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or b) fixed-roof tank with internal floating deck / roof fitted with primary seal, or c) fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

(ii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except for domed 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.

(c). The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units			
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3			
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 using thermal treatment.		N/A	New	150
			Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.		N/A	New	40 000
			Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining VOC's, with a collection efficiency of at least 95%, shall be fitted.

5. Subcategory 2.5: 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

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature: –
Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour

pressure of up to 14kPa at operating temperature, except during loading and offloading. (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:

Application	**All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.**
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	d) External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or e) fixed-roof tank with internal floating deck / roof fitted with primary seal, or f) fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

(ii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except for domed 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units.

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the

venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining VOC's, with a collection efficiency of at least 95%, shall be fitted.

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/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
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 arrangements 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 inorganic sulphur-containing compounds to be less than 1000 mg/Nm^3 measured as hydrogen sulphide, whichever is strictest.

(ii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

2. Subcategory 3.2: Coke Production

Description:	**Coke production and by-product recovery.**		
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 sulphide	H_2S	New	7(i)
		Existing	10(i)
Notes:	**(i) from point source**		

3. Subcategory 3.3: Tar Processes

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 arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature: –

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (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:

Application	**All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.**
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	g) External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or h) fixed-roof tank with internal floating deck / roof fitted with primary seal, or i) fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

(ii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except for domed 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.

(c) The following special arrangements shall apply for control of TVOCs from loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used.

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below.

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
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 using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non-thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded

using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining VOC's, with a collection efficiency of at least 95%, shall be fitted.

4. *Subcategory 3.4 Char, Charcoal and Carbon Black Production*

Description:	**Production of char, charcoal and the production and use of carbon black.**		
Application:	**All installations producing char and charcoal. Installations consuming more than 20 tons per month of carbon black in any processes.**		
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/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	50
		Existing	100

6. Subcategory 3.6 Synthetic Gas Production and Cleanup

Description:	**The production and clean-up of a gaseous stream derived from coal gasification and includes gasification, separation and clean up of a raw gas stream through a process that involves sulphur removal and Rectisol as well as the stripping of a liquid tar stream derived from the gasification 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**		
Hydrogen Sulphide	H_2S	New	3 500
		Existing	4 200
Total Volatile Organic Compounds	N/A	New	130
		Existing	250
Sulphur dioxide	SO_2	New	500
		Existing	3500

Category 4: Metallurgical Industry

1. *Subcategory 4.1:Drying and Calcining*

Description:		**Drying and calcining of mineral solids including ore**	
Application:		**Facilities with 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	SO2	New	1000
		Existing	1000
Oxides of nitrogen	NOX expressed as NO2	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 arrangements shall apply –

(i) Reference oxygen content appropriate to fuel type must be used.

(ii) Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

3. Subcategory 4.3: Primary Aluminium Production

Description:	**Primary aluminium 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
Sulphur dioxide	SO_2	Soderberg (New)	No new plant will be authorised
		Soderberg (Existing)	500
		AP Technology(New)	50
		AP Technology (Existing)	250
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 and alloying through the application of heat (excluding metal recovery, covered under Subcategory 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 Hydrogen fluoride	F as HF	New	1
		Existing	5
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 Furnaces

Description:	**Basic oxygen furnaces in the 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

(a) The following special arrangement shall apply –

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

7. Subcategory 4.7: Electric Arc Furnaces (Primary and Secondary)

Description:	**Electric arc furnaces in the 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

(a) The following special arrangement shall apply –

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

8. Subcategory 4.8: Blast Furnaces

Description:	**Blast furnace 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**		
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 –

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/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		

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**
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

(a) The following special arrangements 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 or casting of iron, iron ores, steel or ferro-alloys, including the cleaning of castings and handling of casting mould materials.**		
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 metallised 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 extraction, processing and use of lead in production by the application of heat. The production of lead-containing electric batteries.		
Application:	All installations using more than 20 Kg/month. All installations producing lead-containing electric batteries.		
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 extraction, processing and production 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 nitrogen	NO_X expressed as NO_2	New	500
		Existing	500
Mercury	Hg	New	0,2
		Existing	1,0
Dioxins	PCDD/PCDF	New	0,1ngTEQ
		Existing	No standard proposed

(a) The following transitional arrangement shall apply –

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 immediately.

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:	**Processes in which sulphide ores are smelted, roasted calcined or converted (Excluding Inorganic Chemicals-related activities regulated under Category 7).**		
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% SO2)	SO_2	New	1200
		Existing	3500
Sulphur dioxide (feed SO_2 >5% SO_2)	SO_2	New	1200
		Existing	2500

(a) The following special arrangement shall apply –

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 through chemical treatment (Excluding Inorganic Chemicals-related activities regulated under Category 7).**		
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 special arrangement shall apply –

Thermal treatment standard are not applicable to precious and base metal refining processes.

Description:	**The processing of vanadium-bearing ore or slag for the production of vanadium oxides or vanadium carbide 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	b

(a) The following transitional arrangement shall apply –

Plants processing vanadium ore or slag for the production of vanadium oxides shall report the emissions of vanadium and its compounds to the licensing authority annually, commencing immediately.

(b) The following special arrangements for ammonia emissions shall apply –

(i) Emission limits for ammonia shall be negotiated with the licensing authority, on the basis of the existing permits and submission of atmospheric impact reports.

(ii) Existing Plants shall submit atmospheric impact reports to the licensing authority on its ammonia impact annually.

19. *Subcategory 4.19: Production and or Casting of Bronze, Brass and Copper*

Description:	**The production and or casting of bronze, brass and 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*

Description:	**The processing or recovery of metallurgical slag 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	100
Sulphur dioxide	SO_2	New	1500
		Existing	2500
Oxides of nitrogen	NO_X expressed as NO_2	New	350
		Existing	2000

(a) The following transitional arrangement shall apply –

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 immediately.

21. Subcategory 4.21: Metal Recovery

Description:	**The recovery of metal from any form of scrap material 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	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,	Pb+ As+ Sb+ Cr+ Co+ Cu + Mn+ Ni+ V	New	0.5
		Existing	0.5

Description:	**The recovery of metal from any form of scrap material by the application of heat.**		
Application:	**All installations.**		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal**
antimony, chromium, cobalt, copper, manganese, nickel, vanadium			
Mercury	Hg	New	0.05
		Existing	0.05
Cadmium Thallium	Cd+Tl	New	0.05
		Existing	0.05
Total organic compounds	N/A	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

23. Subcategory 4.23: Metal Spray

Description:	**The coating of metals using molten metal.**		
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

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

2. *Subcategory 5.2: Drying*

Description:	**The drying of mineral solids including ore, using dedicated combustion installations.**		
Application:	**Facilities with a capacity of more than 100 tons/month product.**		
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	1000
		Existing	1000
Oxides of nitrogen	NO_X expressed as NO_2	New	500
		Existing	1200

3. Subcategory 5.3: Clamp Kilns for Brick Production

Description:	**The production of bricks using clamp kilns.**		
Application:	**All installations producing more than 10 000 bricks 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**		
Dust fall	N/A	New	a
		Existing	a
Sulphur dioxide	SO_2	New	b
		Existing	b
[a]three months running average not to exceed limit value for adjacent land use according to dust control regulations promulgated in terms of section 32 of the NEM: AQA, 2004 (Act No. 39 of 2004), in eight principal wind directions.			
[b]Twelve months 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.			

(a) The following special arrangement shall apply –

Where co-feeding with waste materials with calorific value allowed in terms of the Waste Disposal Standards published in terms of the Waste Act, 2008 (Act No.59 of 2008) occurs, additional requirements under subcategory 1.6 shall apply.

4. *Subcategory 5.4: Cement Production (using conventional fuels and raw materials)*

Description:	**The preparation of raw materials, 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 (Separate Raw Mill)	N/A	New	30
		Existing	50
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

(b) The following special arrangement shall apply –

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

5. Subcategory 5.5: 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 (Separate Raw Mill)	N/A	New	30
		Existing	50
Particulate matter (Clinker grinding)	N/A	New	30
		Existing	50
Particulate matter (Cooler ESP)	N/A	New	100
		Existing	150
Particulate matter (Cooler BF)	N/A	New	50
		Existing	50
Particulate matter (Kiln)	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 status**	**mg/Nm^3 under normal**
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 /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) Emissions from cooling, grinding, milling and fugitive dust capture processes are not subject to the oxygen content reference condition.

(ii) The facility shall be designed, equipped, built and operated in such a way so as to prevent the emissions into the air giving rise to significant ground-level air pollution (i.e. leading to the exceedance of an accepted ambient air quality threshold standard).

(iii) Monitoring equipment shall be installed and acceptable techniques used in order to accurately monitor the parameters, conditions and mass concentrations relevant to the co-processing of AFR and incineration of waste.

(iv) All continuous, on-line emission monitoring results must be reported as a Daily Average concentration expressed as mg/Nm^3, and at 'normalised' conditions of 10% O_2, 101.3 kPa, 273 K / 0 ºC, dry gas.

(v) Discontinuous (periodic) emission monitoring results must be expressed as mg/Nm^3, or ng/Nm^3 I-TEQ for PCDD/PCDF, and at 'normalised' conditions of 10% O_2, 101.3 kPa, 273 K / 0 ºC, dry gas.

(vi) Exit gas temperatures must be maintained below 200 ºC.

(vii) Pollution control devices (exhaust gas cooling and bag filter or ESP) must have a daily availability of 98% (i.e. maximum downtime of 2% or 30 minutes per running 24 hours). The cumulative annual downtime (total downtime over a one year period) may

however not exceed 60 hours (0.685 % per annum).

(viii) Continuous, on-line measurement of the following emissions and operating parameters is required:

- Particulate matter (total particulate);
- O_2;
- CO;
- NO_X;
- SO_2;
- HCl;
- HF;
- VOC/TOC;
- Emission exhaust volume (e.g. Nm^3/hr) and flow rate (e.g. m/s);
- Water vapour content of exhaust gas (humidity);
- Exhaust gas temperature;
- Internal process temperature/s;
- Pressure; and
- Availability of air pollution control equipment (including exit gas cooling).

(ix) Appropriate installation and functioning of automated, continuous monitoring equipment for emissions to air, which are subject to quality control and to an annual surveillance test. Independent accredited calibration must be undertaken by means of parallel measurements with the reference methods, at a frequency as per the requirements of the equipment, but as a minimum every 3 years.

(x) Periodic measurements of heavy metals and dioxin and furan emissions must be undertaken, using national (if available) or internationally acceptable methods, by independent/external, accredited specialists twice during the first 12 months of waste incineration / AFR co-processing, and annually thereafter.

(xi) Average emission values for heavy metals are to be measured over a minimum sample period of 60 minutes to obtain a representative sample, and a maximum of 8 hours, and the average values for dioxins and furans (expressed as I-TEQ) over a sample period of a minimum of 60 minutes and maximum of 8 hours.

(xii) Periodic measurements of heavy metals and dioxins and furans are to be carried out representatively to provide accurate and scientifically correct emission data and results, and sampling and analysis must be carried out by independent, accredited laboratories.

(xiii) To ensure valid monitoring results are obtained, 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.

(xiv) All measurement results must be recorded, processed and presented in an appropriate manner in a Quarterly Emissions Monitoring Report in order to enable verification of compliance with permitted operating conditions and air emission standards. Quarterly Emission Monitoring Reports must include, amongst others:

- Daily average results of all continuous, on-line emission monitoring parameters, reported on line graphs that include individual, daily average data points, and indicating the relevant air emission limit if applicable;
- Results of all continuous, on-line operational monitoring parameters, reported on line graphs that correspond in scale with the emission monitoring results;
- Results of periodic emission measurements of heavy metals, and dioxins and furans;
- Confirmation of residence times and temperatures of specific wastes co-processed as determined by the specific feed points, plant dimensions and material and gas flow rates;
- Discussion on availability or air pollution control equipment, together with reasons for and management of downtime;
- All relevant results must be compared with baseline measurements taken

prior to the co-processing of AFR or hazardous waste; and

- Detailed evaluation and discussion of any non-compliance during the reporting period.

(xv) Treatment of High Level POPs Containing Waste (as defined by the Stockholm and Basel Conventions) are to be preceded by an independently monitored Performance Verification Test to determine the Destruction Efficiency (DE) and Destruction and Removal Efficiency (DRE) of principal organic hazardous compounds (POHC) using a suitable verification compound (e.g. trichloroethane).

(xvi) A plan for conducting a Performance Verification Test must be submitted to the relevant Government Department/s at least 3 months prior to the commencement of such a test, and must include, amongst others, the following:

- Motivation for why the plant should be used for treatment of High Level POPs;
- A feasibility study showing that the plant is technically qualified;
- Planned date for commencement of the test and expected duration;
- Details on the waste to be co-processed during the test, including source, volume, composition etc.;
- Motivation for the particular choice of waste and its suitability in providing an

accurate and representative indication of the plant's DE and DRE, and therefore suitability to treat High Level POPs Containing Waste;

- Extension of monitoring regime to include Chlorobenzenes, HCB, PCBs, Benzene, Toluene, Xylenes, PAHs, and NH_3;
- Monitoring and analysis to be conducted, the associated methodologies and independent parties responsible for monitoring.

(xvii) A detailed, independent report documenting and interpreting the results of the Performance Verification Test must be compiled. As a minimum, a DE/DRE of 99.9999% would be required, as well as compliance with Air Emission Standards.

(xviii) An Air Quality Improvement Plan for achieving emission limits over time must be developed if transitional arrangements apply to compliance with emission standards.

6. Subcategory 5.6: Lime Production

Description:	**Processing of lime, magnesite, dolomite and calcium sulphate.**		
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	50
Sulphur dioxide	SO_2	New	400
		Existing	400
Oxides of nitrogen	NO_X expressed as NO_2	New	500
		Existing	500

7. Subcategory 5.7: Lime Production (using alternative fuels and/or resources)

Description:	**Processing of lime, magnesite, dolomite and calcium sulphate where alternative fuels and/or resources are used.**		
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	30
		Existing	80
Sulphur dioxide	SO_2	New	50
		Existing	250

Description:	Processing of lime, magnesite, dolomite and calcium sulphate where alternative fuels and/or resources are used.		
Application:	**All installations.**		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal**
Oxides of nitrogen	NO_X expressed as NO_2	New	800
		Existing	1200
Total organic compounds,	N/A	New	10
		Existing	10
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% 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) Emissions from cooling, grinding, milling and fugitive dust capture processes are not subject to the oxygen content reference condition.

(ii) The facility shall be designed, equipped, built and operated in such a way so as to prevent the emissions into the air giving rise to significant ground-level air pollution (i.e. leading to the exceedance of an accepted ambient air quality threshold standard).

(iii) Monitoring equipment shall be installed and acceptable techniques used in order to accurately monitor the parameters, conditions and mass concentrations relevant to the co-processing of AFR and incineration of waste.

(iv) All continuous, on-line emission monitoring results must be reported as a Daily Average concentration expressed as mg/Nm^3, and at 'normalised' conditions of 10% O_2, 101.3 kPa, 273 K / 0 ºC, dry gas.

(v) Discontinuous (periodic) emission monitoring results must be expressed as mg/Nm^3, or ng/Nm^3 I-TEQ for PCDD/PCDF, and at 'normalised' conditions of 10% O_2, 101.3 kPa, 273 K / 0 ºC, dry gas.

(vi) Exit gas temperatures must be maintained below 200 ºC.

(vii) Pollution control devices (exhaust gas cooling and bag filter or ESP) must have a daily availability of 98% (i.e. maximum downtime of 2% or 30 minutes per running 24 hours). The cumulative annual downtime (total downtime over a one year period) may however not exceed 60 hours (0.685 % per annum).

(viii) Continuous, on-line measurement of the following emissions and operating parameters is required:

- Particulate matter (total particulate);
- O_2;
- CO;
- NO_X;
- SO_2;
- HCl;
- HF;
- VOC/TOC;
- Emission exhaust volume (e.g. Nm^3/hr) and flow rate (e.g. m/s);
- Water vapour content of exhaust gas (humidity);
- Exhaust gas temperature;
- Internal process temperature/s;
- Pressure; and
- Availability of air pollution control equipment (including exit gas cooling).

(ix) Appropriate installation and functioning of automated, continuous monitoring equipment for emissions to air, which are subject to quality control and to an annual surveillance test. Independent accredited calibration must be undertaken by means of parallel measurements with the reference methods, at a frequency as per the requirements of the equipment, but as a minimum every 3 years.

(x) Periodic measurements of heavy metals and dioxin and furan emissions must be undertaken, using national (if available) or internationally acceptable methods, by independent/external, accredited specialists twice during the first 12 months of waste incineration / AFR co-processing, and annually thereafter.

(xi) Average emission values for heavy metals are to be measured over a minimum sample period of 60 minutes to obtain a representative sample, and a maximum of 8 hours, and the average values for dioxins and furans (expressed as I-TEQ) over a sample period of a minimum of 60 minutes and maximum of 8 hours.

(xii) Periodic measurements of heavy metals and dioxins and furans are to be carried out representatively to provide accurate and scientifically correct emission data and results, and sampling and analysis must be

carried out by independent, accredited laboratories.

(xiii) To ensure valid monitoring results are obtained, 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.

(xiv) All measurement results must be recorded, processed and presented in an appropriate manner in a Quarterly Emissions Monitoring Report in order to enable verification of compliance with permitted operating conditions and air emission standards. Quarterly Emission Monitoring Reports must include, amongst others:

- Daily average results of all continuous, on-line emission monitoring parameters, reported on line graphs that include individual, daily average data points, and indicating the relevant air emission limit if applicable;
- Results of all continuous, on-line operational monitoring parameters, reported on line graphs that correspond in scale with the emission monitoring results;
- Results of periodic emission measurements of heavy metals, and dioxins and furans;

- Confirmation of residence times and temperatures of specific wastes co-processed as determined by the specific feed points, plant dimensions and material and gas flow rates;
- Discussion on availability or air pollution control equipment, together with reasons for and management of downtime;
- All relevant results must be compared with baseline measurements taken prior to the co-processing of AFR or hazardous waste; and
- Detailed evaluation and discussion of any non-compliance during the reporting period.

(xv) Treatment of High Level POPs Containing Waste (as defined by the Stockholm and Basel Conventions) are to be preceded by an independently monitored Performance Verification Test to determine the Destruction Efficiency (DE) and Destruction and Removal Efficiency (DRE) of principal organic hazardous compounds (POHC) using a suitable verification compound (e.g. trichloroethane).

(xvi) A plan for conducting a Performance Verification Test must be submitted to the relevant Government Department/s at least 3 months prior to the commencement of such a test, and must include, amongst others, the following:

- Motivation for why the plant should be used for treatment of High Level POPs;
- A feasibility study showing that the plant is technically qualified;
- Planned date for commencement of the test and expected duration;
- Details on the waste to be co-processed during the test, including source, volume, composition etc.;
- Motivation for the particular choice of waste and its suitability in providing an accurate and representative indication of the plant's DE and DRE, and therefore suitability to treat High Level POPs Containing Waste;
- Extension of monitoring regime to include Chlorobenzenes, HCB, PCBs, Benzene, Toluene, Xylenes, PAHs, and NH_3;
- Monitoring and analysis to be conducted, the associated methodologies and independent parties responsible for monitoring.

(xvii) A detailed, independent report documenting and interpreting the results of the Performance Verification Test must be compiled. As a minimum, a DE/DRE of 99.9999% would be required, as well as compliance with Air Emission Standards.

(xviii) An Air Quality Improvement Plan for achieving emission limits over time must be developed if transitional arrangements

apply to compliance with emission standards.

8. Subcategory 5.8: Glass and Mineral Wool Production

Description:	**The production of glass containers, flat glass, glass fibre and mineral wool.**		
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

9. Subcategory 5.9: 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

10. Subcategory 5.10: Macadam Preparation

Description:	**Permanent facilities used for mixtures of aggregate; tar or bitumen to produce road-surfacing materials.**		
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.	N/A	New	150
		Existing	150

11. Subcategory 5.11: Alkali Processes

Description:	**Production 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

Category 6: Organic Chemicals Industry

Description:	**The production, or use in production of organic chemicals 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 production 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.		
Application:	**All installations producing or using more than 100 tons per annum of any of the listed compounds.**		
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 trioxide (from sulphonation processes)	SO_3	New	30
		Existing	100
Acrylonitrile (from processes producing and/or using acrylonitrile).	CH_2CHCN	New	5
		Existing	5
Methylamines (from nitrogen-containing organic chemicals)	CH_5N	New	10
		Existing	10
Total volatile organic compounds (thermal)	N/A	New	150
		Existing	150
Total volatile organic compounds (non thermal)	N/A	New	40 000
		Existing	40 000

(a) The following transitional arrangement shall apply for the storage and handling of raw materials, intermediate and final products with a vapour pressure greater than 14kPa at operating temperature: –

Leak detection and repair (LDAR) program approved by licensing authority to be instituted, by 01 January 2014.

(b) The following special arrangements shall apply for control of TVOCs from storage of raw materials, intermediate and final products with a vapour pressure of up to 14kPa at operating temperature, except during loading and offloading. (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:

Application	**All permanent immobile liquid storage facilities at a single site with a combined storage capacity of greater than 1000 cubic meters.**
True vapour pressure of contents at product storage temperature	**Type of tank or vessel**
Type 1: Up to 14 kPa	Fixed-roof tank vented to atmosphere, or as per Type 2 and 3
Type 2: Above 14 kPa and up to 91 kPa with a throughput of less than 50'000 m³ per annum	Fixed-roof tank with Pressure Vacuum Vents fitted as a minimum, to prevent "breathing" losses, or as per Type 3
Type 3: Above 14 kPa and up to 91 kPa with a throughput greater than 50'000 m³ per annum	j) External floating-roof tank with primary rim seal and secondary rim seal for tank with a diameter greater than 20m, or k) fixed-roof tank with internal floating deck / roof fitted with primary seal, or l) fixed-roof tank with vapour recovery system.
Type 4: Above 91 kPa	Pressure vessel

(ii) The roof legs, slotted pipes and/or dipping well on floating roof tanks (except for domed 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.

(c) The following special arrangements shall apply for control of TVOCs from the loading and unloading (excluding ships) of raw materials, intermediate and final products with a vapour pressure of greater than 14kPa at handling temperature. Alternative control measures that can achieve the same or better results may be used:

(i) All installations with a throughput of greater than 50'000 m^3 per annum of products with a vapour pressure greater than 14 kPa, must be fitted with vapour recovery / destruction units. Emission limits are set out in the table below -

Description:	Vapour Recovery Units		
Application:	All loading/ offloading facilities with a throughput greater than 50 000 m^3		
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 using thermal treatment.	N/A	New	150
		Existing	150
Total volatile organic compounds from vapour recovery/ destruction units using non thermal treatment.	N/A	New	40 000
		Existing	40 000

(ii) For road tanker and rail car loading / offloading facilities where the throughput is less than 50'000 m^3 per annum, and where ambient air quality is, or is likely to be impacted, all liquid products shall be loaded using bottom loading, or equivalent, with the venting pipe connected to a vapour balancing system. Where vapour balancing and / or bottom loading is not possible, a recovery system utilizing adsorption, absorption, condensation or incineration of the remaining VOC's, with a collection efficiency of at least 95%, shall be fitted.

Category 7: Inorganic Chemicals Industry

1. Subcategory 7.1: Production and or Use in Manufacturing of Ammonia, Fluorine, Fluorine Compounds, Chlorine, and Hydrogen Cyanide

Description:	**Production and or use in manufacturing of ammonia, fluorine, fluorine compounds, hydrogen cyanide and chlorine gas (Excluding metallurgical processes-related activities regulated under category 4).**
Application:	**All installations producing and or using more than 100 tons per annum of any of the listed compounds.**

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 fluoride (from processes in which HF is evolved).	HF	New	5
		Existing	30
Chlorine (from processes in which Cl_2 is evolved).	Cl_2	New	50
		Existing	50
Ammonia (from processes in which NH_3 is evolved).	NH_3	New	30
		Existing	100
Hydrogen Cyanide (from processes in which HCN is evolved).	HCN	New	0.5
		Existing	2

2. Subcategory 7.2: Production of Acids

Description:	**The production, bulk handling and or use in manufacturing of hydrofluoric, hydrochloric, nitric and sulphuric acid (including oleum) in concentration exceeding 10%.** **Processes in which oxides of sulphur are emitted through the production of acid sulphites of alkalis or alkaline earths or through the production of liquid sulphur or sulphurous acid.** **Secondary production of hydrochloric acid through regeneration.**
Application:	**All installations producing, handling and or using more than 100 tons per annum of any of the listed compounds (Excluding metallurgical processes-related activities regulated under category 4).**

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 fluoride measured as Hydrogen Fluoride (from processes in which HF is evolved)	F as HF	New	5
		Existing	30
Hydrogen chloride (from primary production of hydrochloric acid)	HCl	New	15
		Existing	25
Hydrogen chloride (from secondary production of	HCl	New	30
		Existing	100

Description:	**The production, bulk handling and or use in manufacturing of hydrofluoric, hydrochloric, nitric and sulphuric acid (including oleum) in concentration exceeding 10%.** **Processes in which oxides of sulphur are emitted through the production of acid sulphites of alkalis or alkaline earths or through the production of liquid sulphur or sulphurous acid.** **Secondary production of hydrochloric acid through regeneration.**
Application:	**All installations producing, handling and or using more than 100 tons per annum of any of the listed compounds (Excluding metallurgical processes-related activities regulated under category 4).**

Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal**
hydrochloric acid)			
Sulphur dioxide	SO_2	New	350
		Existing	2800
Sulphuric acid mist and sulphur trioxide expressed as SO_3 (from processes in which SO_3 is evolved).	SO_3	New	25
		Existing	100
Oxides of nitrogen expressed as NO_2	NO_X	New	350
		Existing	2000

3. *Subcategory 7.3: Production of Chemical Fertilizer*

Description:	**The production of superphosphates, ammonium nitrate, ammonium phosphates and or ammonium sulphate and their processing into fertiliser mixtures (NPK mixtures).**		
Application:	**All installations producing and or processing more than 10 tons 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
Total fluoride measured as Hydrogen Fluoride	F as HF	New	5
		Existing	30
Ammonia	NH_3	New	50
		Existing	100

4. *Subcategory 7.4: Production, Use in Production or Recovery of Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Lead, Mercury, and or Selenium, by the Application of Heat.*

Description:	**Production, use or recovery of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, mercury, selenium, thallium and their salts not covered elsewhere, excluding their use as catalyst.**		
Application:	**All installations producing or using 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	10
		Existing	25

(a) The following special arrangement shall apply –

Operators shall estimate the emissions of the metals using methods set out in Annexure A. 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/Nm^3 under normal conditions of 6% O_2 , 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	25
		Existing	100

6. *Subcategory 7.6: Production or Use of Phosphorus and Phosphate Salts not mentioned elsewhere*

Description:	**Production or use of phosphorus and phosphate salts.**		
Application:	**All installations producing or using more than 10 tons 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	25
		Existing	50

7. *Subcategory 7.7: Production of Caustic Soda*

Description:	**Production of caustic soda.**		
Application:	**All installations producing more than 10 tons 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	25
		Existing	50

Category 8: Thermal Treatment of Hazardous and General Waste

1. *Subcategory 8.1: Thermal Treatment of General and Hazardous Waste*

Description:	**Facilities where general and hazardous waste are treated by the application of heat.**		
Application:	**All installations treating 10 Kg per day of waste.**		
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	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,	Pb+ As+ Sb+ Cr+ Co+ Cu + Mn+ Ni+ V	New	0.5
		Existing	0.5

Description:	Facilities where general and hazardous waste are treated by the application of heat.		
Application:	All installations treating 10 Kg per day of waste.		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
manganese, nickel, vanadium			
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) For pyrolysis, reference oxygen content does not apply.

(ii) The facility shall be designed, equipped, built and operated in such a way so as to

prevent the emissions into the air giving rise to significant ground-level air pollution (i.e. leading to the exceedance of an accepted ambient air quality threshold standard).

(iii) Monitoring equipment shall be installed and acceptable techniques used in order to accurately monitor the parameters, conditions and mass concentrations relevant to the co-processing of AFR and incineration of waste.

(iv) All continuous, on-line emission monitoring results must be reported as a Daily Average concentration expressed as mg/Nm^3, and at 'normalised' conditions of 10% O_2, 101.3 kPa, 273 K / 0 ºC, dry gas.

(v) Discontinuous (periodic) emission monitoring results must be expressed as mg/Nm^3, or ng/Nm^3 I-TEQ for PCDD/PCDF, and at 'normalised' conditions of 10% O_2, 101.3 kPa, 273 K / 0 ºC, dry gas.

(vi) Exit gas temperatures must be maintained below 200 ºC.

(vii) Pollution control devices (exhaust gas cooling and bag filter or ESP) must have a daily availability of 98% (i.e. maximum downtime of 2% or 30 minutes per running 24 hours). The cumulative annual downtime (total downtime over a one year period) may however not exceed 60 hours (0.685 % per annum).

(viii) Continuous, on-line measurement of the following emissions and operating parameters is required:

- Particulate matter (total particulate);
- O_2;
- CO;
- NO_X;
- SO_2;
- HCl;
- HF;
- VOC/TOC;
- Emission exhaust volume (e.g. Nm^3/hr) and flow rate (e.g. m/s);
- Water vapour content of exhaust gas (humidity);
- Exhaust gas temperature;
- Internal process temperature/s;
- Pressure; and
- Availability of air pollution control equipment (including exit gas cooling).

(ix) Appropriate installation and functioning of automated, continuous monitoring equipment for emissions to air, which are subject to quality control and to an annual surveillance test. Independent accredited calibration must be undertaken by means of parallel measurements with the reference methods, at a frequency as per the requirements of the equipment, but as a minimum every 3 years.

(x) Periodic measurements of heavy metals and dioxin and furan emissions must be undertaken, using national (if available) or internationally acceptable methods, by independent/external, accredited specialists twice during the first 12 months of waste incineration / AFR co-processing, and annually thereafter.

(xi) Average emission values for heavy metals are to be measured over a minimum sample period of 60 minutes to obtain a representative sample, and a maximum of 8 hours, and the average values for dioxins and furans (expressed as I-TEQ) over a sample period of a minimum of 60 minutes and maximum of 8 hours.

(xii) Periodic measurements of heavy metals and dioxins and furans are to be carried out representatively to provide accurate and scientifically correct emission data and results, and sampling and analysis must be carried out by independent, accredited laboratories.

(xiii) To ensure valid monitoring results are obtained, 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.

(xiv) All measurement results must be recorded, processed and presented in an appropriate manner in a Quarterly Emissions Monitoring Report in order to enable verification of compliance with permitted operating conditions and air emission standards. Quarterly Emission Monitoring Reports must include, amongst others:

- Daily average results of all continuous, on-line emission monitoring parameters, reported on line graphs that include individual, daily average data points, and indicating the relevant air emission limit if applicable;
- Results of all continuous, on-line operational monitoring parameters, reported on line graphs that correspond in scale with the emission monitoring results;
- Results of periodic emission measurements of heavy metals, and dioxins and furans;
- Confirmation of residence times and temperatures of specific wastes co-processed as determined by the specific feed points, plant dimensions and material and gas flow rates;
- Discussion on availability or air pollution control equipment, together with reasons for and management of downtime;
- All relevant results must be compared with baseline measurements taken prior to the co-processing of AFR or hazardous waste; and

- Detailed evaluation and discussion of any non-compliance during the reporting period.

(xv) Treatment of High Level POPs Containing Waste (as defined by the Stockholm and Basel Conventions) are to be preceded by an independently monitored Performance Verification Test to determine the Destruction Efficiency (DE) and Destruction and Removal Efficiency (DRE) of principal organic hazardous compounds (POHC) using a suitable verification compound (e.g. trichloroethane).

(xvi) A plan for conducting a Performance Verification Test must be submitted to the relevant Government Department/s at least 3 months prior to the commencement of such a test, and must include, amongst others, the following:

- Motivation for why the plant should be used for treatment of High Level POPs;
- A feasibility study showing that the plant is technically qualified;
- Planned date for commencement of the test and expected duration;
- Details on the waste to be co-processed during the test, including source, volume, composition etc.;
- Motivation for the particular choice of waste and its suitability in providing an accurate and representative indication of the plant's DE and DRE, and

therefore suitability to treat High Level POPs Containing Waste;

- Extension of monitoring regime to include Chlorobenzenes, HCB, PCBs, Benzene, Toluene, Xylenes, PAHs, and NH_3;
- Monitoring and analysis to be conducted, the associated methodologies and independent parties responsible for monitoring.

(xvii) A detailed, independent report documenting and interpreting the results of the Performance Verification Test must be compiled. As a minimum, a DE/DRE of 99.9999% would be required, as well as compliance with Air Emission Standards.

(xviii) An Air Quality Improvement Plan for achieving emission limits over time must be developed if transitional arrangements apply to compliance with emission standards.

(xix) Compliance time frames for health care risk waste incineration will be as specified in paragraphs (8); (9); and (10) 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.

(xx) Continuous emission monitoring for Health Care Risk Incinerators shall be complied with by 31 March 2014.

(xxi) Combustion of solid, liquid and gaseous waste materials in installations primarily used for steam for steam raising or electricity generation must comply with the emission standards of this sub- category.

2. Subcategory 8.2: Crematoria and Veterinary Waste Incineration

Description:	**Cremation of human remains, companion animals (pets) and the incineration of veterinary waste**		
Application:	**All installations**		
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	40
		Existing	250
Carbon monoxide	CO	New	75
		Existing	150
Oxides of nitrogen	NO_X expressed as NO_2	New	500
		Existing	1000
Mercury (Applicable to human cremation only)	Hg	New	0.05
		Existing	0.05

3. Subcategory 8.3: Burning Grounds

Description:	**Facilities where waste material from the manufacture of explosives and contaminated explosive packaging material are destroyed.**		
Application:	**All installations disposing of more than 100kg of material per week**		
Substance or mixture of substances		**Plant status**	**mg/Nm^3 under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Dust fall	N/A	New	a
		Existing	a
Sulphur dioxide	SO_2	New	b
		Existing	b

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

[b]Twelve months 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.

4. Subcategory 8.4: Drum Recycling Processes

Description:	**The process in which used drums are reconditioned 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	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

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 caustisizing process.		
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	50
		Existing	100
Total reduced sulphur compounds measured as H2S	H2S	New	10
		Existing	10
Oxides of nitrogen	NOX expressed as NO2	New	600
		Existing	2000

2. Subcategory 9.2: Chemical Recovery Furnaces

Description:	**The recovery of chemicals from the thermal treatment of spent liquor using furnaces.**		
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_2S	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: Chemical Recovery Copeland Reactors

Description:	**The recovery of chemicals from the thermal treatment of spent liquor using Copeland reactors.**		
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	400
Sulphur dioxide	SO_2	New	No plant of this type will be authorised in the future
		Existing	800

(b) The following special arrangement shall apply –

Existing Plants shall submit atmospheric impact report to the licensing authority on its Particulate Matter impact annually.

4. *Subcategory 9.4: Chlorine Dioxide Plants*

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 Burning, Drying and the Production of Manufactured Wood Products*

Description:	**The burning or drying of wood by an external source of heat; and 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

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 –

Best practice measures intended to minimize or avoid offensive odours must be implemented by all installations. These measures must be documented to the satisfaction of the Licensing Authority.

ANNEXURE 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.

(j) ISO 10849: Stationary source emissions – Determination of the mass concentration of

nitrogen oxides – Performance characteristics of automated measuring 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 – CO_2, O_2 by instrumental methods

(n) Method 3B – CO_2, O_2 by Orsat apparatus

(o) Method 3C – CO_2, CH_4, N_2, O_2 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 (SO_2)

(w) Method 6A – SO_2, CO_2

(x) Method 6B – SO_2, CO_2 - Long Term Integrated

(y) Method 6C – SO_2 – Instrumental

(z) Method 6C – Figures SO_2

(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

(iii) Method 10 – Carbon Monoxide-NDIR

(jj) Method 10A – CO for Certifying CEMS

(kk) Method 10B – CO from Stationary Sources

(ll) Method 11 – H_2S 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 – SO_2 Removal & PM, SO_2, 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.

Repeal of the 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, 2010

(21) The 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 published under Government Notice No. 248, Gazette No. 33064 dated 31 March 2010, in terms of section 21(1)(a) read with section 21(3)(a) and (b) of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), is hereby repealed.

Short tittle and commencement

(22) This notice is called the listed activities and associated minimum emission standards identified in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).

DEPARTMENT OF ENVIRONMENTAL AFFAIRS
DEPARTEMENT VAN OMGEWINGSAKE

No. 747 **11 October 2013**

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

REGULATIONS PRESCRIBING THE FORMAT OF THE ATMOSPHERIC IMPACT REPORT

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby publish the Regulations prescribing the format of the Atmospheric Impact Report, in terms of section 53(o) read with section 30 of the National Environmental Management : Air Quality Act, 2004 (Act No. 39 of 2004), set out in the Schedule hereto.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

Any person required to submit an atmospheric impact report in terms of section 30 of the National Environmental Management: Air Quality Act, 2004 must do so in the prescribed format set out below.

TABLE OF CONTENTS

4.4 Fugitive emissions (area and or line sources)
4.5 Emergency incidents

5. IMPACT OF ENTERPRISE ON THE RECEIVING ENVIRONMENT

5.1 Analysis of Emissions' Impact on Human Health
5.2 Analysis of Emissions' Impact on the Environment

6. COMPLAINTS

7. CURRENT OR PLANNED AIR QUALITY MANAGEMENT INTERVENTIONS

8. COMPLIANCE AND ENFORCEMENT ACTIONS

9. ADDITIONAL INFORMATION

10. FORMAL DECLARATIONS

101 The declaration of accuracy of information
10.2 The declaration of independence of practitioner

NB: Please complete all sections. Attach required maps and sketches. Graphics must be clear, labeled and, where applicable, should include a true north arrow and scale.

1. ENTERPRISE DETAILS

The report must contain the enterprise details section that provides accurate, complete, current information on the following:

1.1 Enterprise Details

Enterprise Name	
Trading As	
Type of Enterprise, e.g. Company/Close Corporation/Trust	
Company/Close Corporation/Trust Registration Number (Registration Numbers if Joint Venture)	
Registered Address	
Postal Address	
Telephone Number (General)	
Fax Number (General)	
Industry Type/Nature of Trade	
Land Use Zoning as per Town Planning Scheme	
Land Use Rights if outside Town Planning Scheme	

Responsible Person	
Emission Control Officer	
Telephone Number	
Cell Phone Number	
Fax Number	
E-mail Address	
After Hours Contact Details	

1.2 Location and Extent of the Plant

Physical Address of the Plant	
Description of Site (Where No Street Address)	
Coordinates of Approximate Centre of Operations	North-south: East-west:
Extent (km²)	
Elevation Above Mean Sea Level (m)	
Province	
Metropolitan/District Municipality	
Local Municipality	
Designated Priority Area (if applicable)	

Description of surrounding land use (within 5 km radius)

Provide a description of the surrounding land use within a 5 km radius, specifically noting the names and proximity of residential and commercial areas in relation to the site of works. This information can be obtained from topographical maps, local land use planning offices or other electronic resources.

Attach legible map(s), satellite image(s) or aerial photograph(s) in colour, detailing location of the plant in relation to surrounding community.

1.3 Atmospheric Emission Licence and Other Authorisations

List the atmospheric emission licence number relating to the listed activity or activities undertaken at the plant, and all other authorisations, permits, licences related to air quality management.

2. NATURE OF THE PROCESS

2.1 Listed Activity or Activities

Category of Listed Activity	Sub-category of the Listed Activity	Description of the Listed Activity

2.2 Process Description

Provide a detailed description of the entire production process undertaken at the plant, including reference to the overall balance sheet inputs, outputs and emissions. Attach a process flow diagram that illustrates the inputs, outputs and points of emissions.

2.3 Unit Processes

Name of the Unit Process	Unit Process Function	Batch or Continuous Process

Note: In the event of confidential or proprietary information being disclosed, this matter will be handled on a case by case basis. The regulator reserves the right to request proof of a confidentiality or proprietary supply agreement. Failure to provide sufficiently detailed information to allow the air quality officer to make an informed decision may result in delays in the processing or even rejection of the Atmospheric Impact Report.

3. TECHNICAL INFORMATION

3.1 Raw Materials Used

Provide accurate information on raw materials used at the plant:

Raw Material Type	Design Consumption Rate (quantity)	Units (quantity/period)

3.2 Appliances and Abatement Equipment Control Technology

Provide information on appliances used at the plant

Appliance Name	**Appliance Type / Description**	**Appliance Function / Purpose**

Note: In the event of confidential or proprietary information being disclosed, this matter will be handled on a case by case basis. The regulator reserves the right to request proof of a confidentiality or proprietary supply agreement. Failure to provide sufficiently detailed information to allow the air quality officer to make an informed decision, may result in delays in the processing or even rejection of the Atmospheric Impact Report.

4. ATMOSPHERIC EMISSIONS

This paragraph must provide the following information:

4.1 Point source parameters

List the location of all point source parameters, only considering those point sources that emit the pollutant/s identified in the Section 21 regulations for that specific listed activity:

Point source number	Point source name	Point source coordinates	Height of release above ground (m)	Height above nearby building (m)	Diameter at stack tip / vent exit (m)	Actual gas exit temperature (°C)	Actual gas volumetric flow (m^3/hr)	Actual gas exit velocity (m/s)	Type of emission (continuous / batch)

4.2 Point source maximum emission rates (normal operating conditions)

Point source number	Point source name (as in paragraph 4.1. above)	Pollutant name	Average emission rate		Duration of emissions
			(mg/Nm^3)	Averaging period	

4.3 Point source maximum emission rates (start-up, shut-down, upset and maintenance conditions)

Provide a description of start-up, shut-down, upset and maintenance operating conditions with specific reference to the emissions profile that will be expected for the pollutant/s identified in the Section 21 regulations for that specific listed activity. Provide an estimated raw gas emission rate for each of these operating conditions.

Provide a summary of the frequency of start-up, shut-down, upset and maintenance operating conditions experienced over the last 2 years.

4.4 Fugitive emissions (area and or line sources)

Describe and quantify fugitive emissions at the plant, including, but not limited to:

(a) emissions from stockpiles, haul roads, conveyors, crushers, material handling;
(b) evaporation losses from storage tanks, transfer stations, effluent treatment works, dams, etc.; and
(c) current and approved planned measures to manage or mitigate each source of fugitive emission.

The sub-paragraph must clearly set out source locations, dimensions and temporal variations in emissions for the pollutant/s identified in the Section 21 regulations for that specific listed activity. Technically sound methods must be used in quantifying fugitive emissions. The methods used to quantify fugitive emissions must be documented and the margin of uncertainty indicated.

4.5 Emergency Incidents

Provide a summary of emergency incidents in the last 2 years resulting in atmospheric emissions, including:

(a) Nature and cause of the incident;
(b) Actions undertaken immediately following the incident to minimise impact; and
(c) Actions undertaken subsequently to reduce the likelihood of reoccurrence

5. IMPACT OF ENTERPRISE ON THE RECEIVING ENVIRONMENT

5.1 Analysis of Emissions' Impact on Human Health

In order to assess the atmospheric impact of the facility on human health a dispersion modelling exercise must be undertaken. Any dispersion modelling study undertaken as part of an Atmospheric Impact Report must be done in accordance with the National Air Quality Modelling Guidelines specified for regulatory purposes – developed in terms of section 53 of AQA. The impact assessment should

only take the emissions of the facility under consideration as well as prevailing ambient air concentrations into account during this assessment. A compliance assessment must be undertaken using the national ambient air quality standards, specifically in residential areas and other areas where human exposure could occur.

5.2 Analysis of Emissions' Impact on the Environment

In order to assess the atmospheric impact of the facility on the environment a dispersion modelling exercise may be undertaken at the discretion of an Air Quality Officer. Any dispersion modelling study undertaken as part of an Atmospheric Impact Report must be done in accordance with the national air quality modelling guidelines specified for regulatory purposes. The impact assessment should only take the emissions of the facility under consideration into account as well as prevailing ambient air concentrations during this assessment. An environmental assessment may include but is not limited to the following aspects:

(a) Soil;
(b) Water Bodies (rivers, dams, lakes); and
(c) Commercial Agriculture Operations

6. COMPLAINTS

Provide details on any complaints the plant has received in respect of air pollution in the last 2 years. The summary of complaints must detail the frequency, nature and source of the complaint as well as all measures taken in response to these complaints.

7. CURRENT OR PLANNED AIR QUALITY MANAGEMENT INTERVENTIONS

Provide an overview of any approved air quality management improvement interventions currently being implemented for the facility and those scheduled for the next 5 years. Please indicate the envisaged emission reduction that will be achieved from these interventions.

8. COMPLIANCE AND ENFORCEMENT HISTORY

The AIR must set out all air quality compliance and enforcement actions undertaken against the enterprise in the last 5 years. This may include, amongst others, directives, compliance notices, interdicts, prosecution, fines.

9. ADDITIONAL INFORMATION

Please submit any additional documentation in relation to this Atmospheric Impact Report which you wish to draw to the attention of the responsible Air Quality Officer.

10. FORMAL DECLARATIONS

10.1 A declaration of accuracy of information must be submitted by all applicants in the form contained in Annexure A to these Regulations.

10.2 A declaration of independence must be submitted by all practitioners preparing Atmospheric impact Reports in the form contained in Annexure B to these Regulations.

ANNEXURE A

DECLARATION OF ACCURACY OF INFORMATION - APPLICANT

Name of Enterprise: _____

Declaration of accuracy of information provided:

Atmospheric Impact Report in terms of section 30 of the Act.

I, _____[*duly authorised*], declare that the information provided in this atmospheric impact report is, to the best of my knowledge, in all respects factually true and correct. I am aware that the supply of false or misleading information to an air quality officer is a criminal offence in terms of section 51(1)(g) of this Act.

Signed at ___ on this _____ day of _____

_____

SIGNATURE

_____

CAPACITY OF SIGNATORY

ANNEXURE B

DECLARATION OF INDEPENDENCE - PRACTITIONER

Name of Practitioner: _____

Name of Registration Body:_____

Professional Registration No.:_____

Declaration of independence and accuracy of information provided:

Atmospheric Impact Report in terms of Section 30 of the Act.

I,_____, declare that I am independent of the applicant. I have the necessary expertise to conduct the assessments required for the report and will perform the work relating the application in an objective manner, even if this results in views and findings that are not favourable to the applicant. I will disclose to the applicant and the air quality officer all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the air quality officer. The information provided in this atmospheric impact report is, to the best of my knowledge, in all respects factually true and correct. I am aware that the supply of false or misleading information to an air quality officer is a criminal offence in terms of section 51(1) (g) of this Act.

Signed at _____ on this _____ day of ___

_____

SIGNATURE

_____

CAPACITY OF SIGNATORY

GOVERNMENT NOTICES
GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF ENVIRONMENTAL AFFAIRS
DEPARTEMENT VAN OMGEWINGSAKE

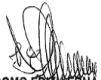
No. R. 827 1 November 2013

NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT, 2004

(ACT NO. 39 OF 2004)

NATIONAL DUST CONTROL REGULATIONS

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby make the National Dust Control Regulations, in terms of section 53(o), read with section 32 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), set out in the Schedule hereto.



BOMO EDITH EDNA MOLEWA

MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

1. Definitions

In these regulations any word or expression to which a meaning has been assigned in the Act has that meaning, and unless the context indicates otherwise:

"ASTM D1739" means the American Standard for Testing and Materials method D1739, which is the standard test method for the collection and measurement of dust fall;

dust (or settleable particulate matter)" means any material composed of particles small enough to pass through a 1 mm screen and large enough to settle by virtue of their weight into the sampling container from the ambient air;

"dustfall" means the deposition of dust;

"dustfall monitoring programme" means monitoring of the dustfall on a continuous basis;

"Non- residential area" means any area not classified for residential use as per local town planning scheme;

"premises" means any land and structures thereon including stockpiles of materials, roadways and other means of conveyance, from which dust may be generated through anthropogenic or natural activities or processes;

"residential area" means any area classified for residential use in terms of the local town planning scheme; and

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

2. Purpose of the regulations

The purpose of the regulations is to prescribe general measures for the control of dust in all areas.

3. Dustfall standard

(1) A standard for the acceptable dustfall rate is set out in Table 1 for residential and non-residential areas.

Table 1: Acceptable dust fall rates

Restriction Areas	Dustfall rate (D) (mg/m^2/day, 30-days average)	Permitted frequency of exceeding dust fall rate
Residential area	D < 600	Two within a year, not sequential months.
Non-residential area	600 < D < 1200	Two within a year, not sequential months.

(2) The method to be used for measuring dustfall rate and the guideline for locating sampling points shall be ASTM D1739: 1970, or equivalent method approved by any internationally recognized body.

4. Dustfall monitoring programme

(1) The air quality officer may require any person, through a written notice, to undertake a dustfall monitoring programme as contemplated in subregulation (5) if:

(a) the air quality officer reasonably suspects that the person is contravening regulation 3; or

(b) the activity being conducted by the person requires a fugitive dust emission management plan as per the notice published in terms of section 21 of the Act.

(2) Any person who conducts any activity in such a way as to give rise to dust in quantities and concentrations that may exceed the dustfall standard set out in regulation 3 must, upon receipt of a notice from the air quality officer, implement dustfall monitoring programme.

(3) A person required to implement the dustfall monitoring programme must, within a specified period, submit a dustfall monitoring report to the air quality officer.

(4) If a person who is required to implement the dustfall monitoring programme has an existing one, the reports of that programme shall be accepted by the air quality officer if it meets the requirements of regulation 5.

(5) A dustfall monitoring programme must include:

(a) the establishment of a network of dust monitoring points using method ASTM D1739: 1970 (or equivalent), sufficient in number to establish the contribution of the person to dustfall in residential and non-residential areas in the vicinity of the premises, to monitor identified or likely sensitive receptor locations, and to establish the baseline dustfall for the district; and

(b) a schedule for submitting to the air quality officer, dustfall monitoring reports annually or at more frequent intervals if so requested by the air quality officer.

5. Dustfall monitoring report

A dustfall monitoring report must provide:

(a) information on the location of sampling sites, including latitudinal and longitudinal coordinates, and a position indicator on a topographic map;
(b) classification of the area where samplers are located, in terms of residential and non-residential, and identification of sensitive receptors;
(c) reference to the standard methods used for site selection, sampling and analysis, and

any methods/laboratory accreditation, if applicable;

(d) the dustfall monitoring results including a comparison of current year and historical results (if any) for each site, and including a tabular summary of compliance with the dustfall standard set out in regulation 3;

(e) meteorological data (wind speed and direction, rainfall) for the sampling area; and

(f) any other relevant data that might influence the results.

6. Measures for the control of dust

(1) Any person who has exceeded the dustfall standard set out in regulation 3 must, within three months after submission of the dustfall monitoring report, develop and submit a dust management plan to the air quality officer for approval.

(2) A dust management plan, contemplated in subregulation (1), must:

(a) identify all possible sources of dust within the affected site;

(b) detail the best practicable measures to be undertaken to mitigate dust emissions;

(c) detail an implementation schedule;

(d) identify the line management responsible for implementation;

(e) incorporate the dust fallout monitoring plan; and

(f) establish a register for recording all complaints received by the person regarding dustfall, and for recording follow up actions and responses to the complainants.

(3) A dust management plan contemplated in subregulation (1) must be implemented within a month of the date of approval.

(4) An implementation progress report must be submitted to the air quality officer at agreed time intervals.

7. Ambient air quality monitoring for PM_{10}

An air quality officer may require any person to undertake continuous ambient air quality monitoring for PM_{10} in accordance with a notice published in terms of section 9 of the Act, if the dustfall monitoring report contemplated in regulation 5 indicates non-compliance with regulation 3.

8. Offences

A person is guilty of an offence if that person contravenes or fails to comply with a provision of regulation 4 (2) and (3), 6(1); (3) and (4) or 7.

9. Penalties

A person convicted of an offence referred to in regulation 8 is liable to in the case of a first conviction to a fine not exceeding R5 million 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 and in respect of both instances to both such fine and such imprisonment.

10. Short title and commencement

These regulations are called the National Dust Control Regulations, 2013.

DEPARTMENT OF ENVIRONMENTAL AFFAIRS
DEPARTEMENT VAN OMGEWINGSAKE

No. 831 1 November 2013

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

DECLARATION OF A SMALL BOILER AS A CONTROLLED EMITTER AND ESTABLISHMENT OF EMISSION STANDARDS

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby declare a small boiler as a controlled emitter in terms of section 23(1) of the National Environmental Management: Air Quality Act, 2004, and hereby also establish emission standards for the small boiler in terms of section 24 of the National Environmental Management: Air Quality Act, 2004 set out in the Schedule hereto.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

DATE 2013/09/17

SCHEDULE

Part 1: Definitions

Definitions

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—

'biomass' means non-fossilized 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;

'black smoke' means a smoke as dark or darker than Shade 4 of the Ringelmann chart, which refers to an equivalent of 80% black as contemplated in Annexure B to this Notice;

'boiler' means a combustion appliance designed to heat water;

'dark smoke' means a smoke as dark or darker than Shade 2 of the Ringelmann chart, which refers to an equivalent of 40% black as contemplated in Annexure B to this Notice;

'existing small boiler' means any small boiler that was manufactured before the date on which this Notice takes effect;

'new small boiler' means any small boiler manufactured after the date on which this Notice takes effect;

'operator' means a person who owns, manages, or controls a small boiler;

'small boiler' means any boiler with a design capacity equal to 10MW but less than 50MW net heat input per unit, based on the lower calorific value used;

'soot blowing' means a method of cleaning deposited carbon from the internal surfaces of a boiler, which usually includes the use of a jet of air or steam onto heat exchange surfaces to clean deposits.

Part 2: General

Application

(1) This Notice shall apply to any small boiler under normal operating conditions subject to the provisions for start-up, soot-blowing and incidences of abnormal conditions.

Provisions for start-up, soot- blowing and incidences of abnormal conditions

(2) During small boiler start-up, black smoke shall be limited to a period of twenty (20) minutes.

(3) During soot blowing of a small boiler and abnormal conditions, dark smoke shall be limited to the following periods:

Number of small boilers per shared stack	Permitted emissions of dark smoke in any period of 8 hours	
	Abnormal conditions	Soot blowing
One (1)	10 minutes	14 minutes
Two (2)	18 minutes	25 minutes
Three (3)	24 minutes	34 minutes
Four or more (4 +)	29 minutes	40 inutes

Implementation

(4) An air quality officer shall be responsible for co-ordinating implementation matters pertaining to this Notice.

Compliance timeframes

(5) A new small boiler must comply with the new small boiler emission standards as contained in Part 3 on the date of publication of this Notice in the *Gazette*.

(6) An existing small boiler must comply with the existing small boiler emission standards as contained in Part 3 within 5 years from the date of publication of this Notice in the *Gazette*.

Emission measurements

(7) The concentration or mass of pollutant for which emissions standards have been set in this Notice shall be reported as the average of at least three (3) measurements; measured over a minimum sample period of 60 minutes, under normal operating conditions to obtain a representative sample.

(8) The manner in which measurements shall be carried out must be in accordance with the standard sampling and analysis methods listed in Annexure A to this Notice.

(9) Methods other than those contained in Annexure A to this Notice may be used with the written consent of the National Air Quality Officer.

(10) In seeking the written consent referred to in paragraph 9 above, an applicant must provide the National Air Quality Officer with any information that supports the equivalence of the method other than those listed in Annexure A to this Notice.

6. Reporting requirements

(11) The operator of a small boiler must—

(1) submit at least one (1) emissions report per annum to the relevant air quality officer in

the format set out in Annexure C to this Notice;

(2) submit the first emissions report to the relevant air quality officer within 12 months from the date on which this Notice takes effect;

(3) provide any additional emission reports as requested by an air quality officer, for the implementation of this Notice;

(4) record all measurement results and keep a copy of this record for at least five (5) years after obtaining the results; or

(5) produce the record of the measurement results for inspection if requested to do so by an air quality officer.

12. For reporting requirements, emissions shall be measured by stack emission measurement and may be supplemented by means of mass balances or engineering calculations.

Part 3: Emission Standards

Emission Standards

A small boiler must comply with the emission and requirements as scheduled in the tables below. All limit values are expressed on daily averages, at specified reference conditions.

1. Solid fuel-fired small boiler

Description	Small boilers fueled with solid fuels.		
Application	All small boilers fueled with hydrocarbon based solid fuel, excluding biomass.		
Substance or mixture of substances		Small boiler Status	Limit value (dry mg/ Nm3 at 273K; 101.3kPa and 10% O2)
Common name	Chemical/ Commonly-used symbol		
Particulate matter	PM	New	120
		Existing	250
Sulphur dioxide	SO2	New	2800
		Existing	2800

2. Liquid fuel-fired small boiler

Description	Small boilers fueled with liquid fuels.		
Application	All liquid fuel-fired small boilers		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 3% O_2)**
Common name	**Chemical/ Commonly-used symbol**		
Particulate matter	PM	New	100
		Existing	150
Sulphur dioxide	SO_2	New	500
		Existing	3500

3. *Gaseous fuel-fired small boiler (using natural gas and liquefied petroleum gas)*

Description	Small boilers fueled with gaseous fuels.		
Application	All small boilers fueled with low particulate matter content gaseous fuels.		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 3% O_2)**
Common name	**Chemical/Commonly- used symbol**		
Particulate matter	PM	New	10
		Existing	20
Sulphur dioxide	SO_2	New	35
		Existing	100

(4) Gaseous fuel-fired small boiler (using process gas)

Description	Small boilers fueled with gaseous fuels.		
Application	All small boilers fueled with gaseous fuels generated by industrial processes.		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 3% O_2)**
Common name	**Chemical/ Commonly- used symbol**		
Particulate matter	PM	New	90
		Existing	130
Sulphur dioxide	SO_2	New	1000
		Existing	3500

(5) Solid biomass fuel-fired small boiler

Description	Small boilers fueled with solid biomass fuels		
Application	All small boilers fueled with biomass fuels		
Substance or mixture of substances		**Small boiler status**	**Limit value (dry mg/ Nm^3 at 273K; 101.3kPa and 10% O_2)**
Common name	**Chemical/ Commonly-used symbol**		
Particulate matter	PM	New	120
		Existing	250
Sulphur dioxide	SO_2	New	1000
		Existing	1000

(6) Co-feeding

Where a small boiler is fired simultaneously with two or more fuels, the emission standards for the main fuel shall be applicable.

1. ANNEXURE A: EMISSION MEASUREMENT METHODS 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 sulphur 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 sulphur 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 10780: Stationary source emissions – Measurement of velocity volume flow rate of gas steams in ducts.

(h) ISO 11632: Stationary source emissions – Determination of mass concentration of sulphur dioxide – Iron chromatography method.

(i) ISO 12141: Stationary source emissions – Determination of mass concentration of particulate matter (dust) at low concentrations- Manual gravimetric method.

(j) ISO 14164: Stationary source emissions – Determination of the volume flow-rate of gas streams in ducts - Automated method.

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.

(k) Method 2H – Flow Rate Measurement with Velocity Decay Near Stack Walls.

(l) Memo – New Test Procedures of Stack Gas Flow Rate in Place of Method 2.

(m) Method 3 – Molecular Weight.

(n) Method 3A – CO_2, O_2 by instrumental methods.

(o) Method 3B – CO_2, O_2 by Orsat apparatus.

(o) Method 3C – CO_2, CH_4, N_2, O_2 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 5I – Determination of Low Level Particulate Matter Emissions.

(t) Method 6 – Sulphur Dioxide (SO_2).

(u) Method 6A – SO_2, CO_2.

(v) Method 6B – SO_2, CO_2 - Long Term Integrated.

(w) Method 6C – SO_2 – Instrumental.

(x) Method 6C – Figures SO_2.

(y) Method 8 – Sulfuric Acid Mist.

(z) Method 9 – Visual Opacity.

(aa) Method 17 – In-Stack Particulate (PM).

(bb) Method 19 – SO_2 Removal & PM, SO_2, NO_X Rates from Electric Utility Steam Generators.

(cc) Method 22 – Fugitive Opacity.

(dd) Method 28A – Air to Fuel Ratio, Burn Rate - Wood-fired Appliances.

(ee) Methods 203A, B, and C – Opacity Determination for Time-Averaged Regulations.

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.

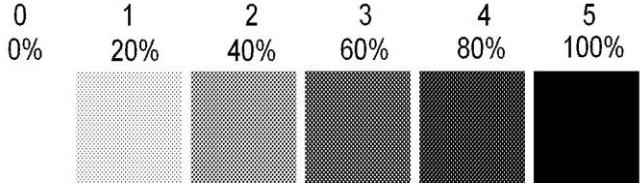
(c) BS EN 15259: Air quality. Measurement of stationary source emissions. Measurement strategy, measurement planning, reporting and design of measurement sites.

(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.

ANNEXURE B: RINGELMANN SMOKE CHART



ANNEXURE C: TEMPLATE FOR REPORTING EMISSIONS

Emission Measurements Report for a Small Boiler

Name of Enterprise:_____

Declaration of accuracy of information provided:

I, _____, declare that the information provided in this report is in all respects factually true and correct.

Signed at_____ on this_____day of _____

_____

SIGNATURE

_____

CAPACITY OF SIGNATORY

1. *Enterprise Details*

Enterprise Name	
Trading as	
Postal Address	
Telephone Number (General)	
Fax Number (General)	
Industry Type? Nature of Trade	
Land Use Zoning as per Town Planning Scheme	
Land Use Rights if outside Town Planning Scheme	

2. *Contact details*

Responsible Person Name	
Telephone Number	
Cell Phone Number	
Fax Number	
E-mail address	

3. *Serial number, product name and model of the small boiler*

Serial Number	Product Name	Product Model	Net Heat Input (MW)

4. *Energy used*

Energy source	Sulphur content of fuel (%) (if applicable)	Ash content of fuel (%) (if applicable)	Design consumption rate (volume)	Actual consumption rate (volume)	Units (quantity/ period)

5. *Point source parameters*

Unique stack ID	Point source name	Height of release above ground	Height above nearby building [m]	Diameter at stack tip / vent exit [m]	Actual gas exit temperature	Actual gas volumetric flow	Actual gas exit velocity [m/s]

6. Point source emissions

Unique stack ID	Pollutant name	Daily Average Values	Emission hours [e.g. 07H00 – 17H00]	Type of emission [continuous/intermittent]		

DEPARTMENT OF ENVIRONMENTAL AFFAIRS
DEPARTEMENT VAN OMGEWINGSAKE

No. 201 **28 March 2014**

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

DECLARATION OF TEMPORARY ASPHALT PLANTS AS A CONTROLLED EMITTER AND ESTABLISHMENT OF EMISSION STANDARDS

I, Bomo Edith Edna Molewa, Minister of Water and Environmental Affairs, hereby declare the temporary asphalt plants as a controlled emitter and establish emission standards for the temporary asphalt plants in terms of section 23(1) read with section 24 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), set out in the Schedule hereto.

BOMO EDITH EDNA MOLEWA
MINISTER OF WATER AND ENVIRONMENTAL AFFAIRS

SCHEDULE

Part 1: Definitions

Definitions
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:-

'a**sphalt plant**' means plant that produces asphalt for road, driveway or pathway surfacing by mixing aggregate, bitumen, and other additives to produce hot mixed asphalt and/or warm mix asphalt;

'e**xisting asphalt plant**' means any plant that was built before the date on which this Notice takes effect;

'new asphalt plant' means any plant that is built after the date on which this Notice takes effect;

'operator or owner' means a person or legal entity that owns, manages, or controls asphalt plant; and

'temporary asphalt plant' means an asphalt plant that is used for the sole purpose of supplying asphalt *for a specific road paving contract not* exceeding a period of 24 months.

Part 2: General

Application

1. This Notice shall apply to all temporary asphalt plants which are operating anywhere in the country.

Implementation

2. An air quality officer shall be responsible for co-ordinating matters pertaining to this Notice.

Compliance timeframes

3. New temporary asphalt plant must comply with the new temporary asphalt plants emission standards as contained in Part 3 on the date of publication of this Notice.

4. Existing temporary asphalt plant must comply with existing temporary asphalt plants emission standards as contained in Part 3 within 5 years from the date of publication of this Notice in the *Gazette*.

Emission measurements

5. The concentration or mass of pollutant for which emissions standards have been set in this Notice shall be reported as the average of at least three (3) measurements; measured over a minimum sample period of 60 minutes, under normal operating conditions to obtain a representative sample.

6. The manner in which measurements shall be carried out must be in accordance with the standard sampling and analysis methods listed in Annexure A to this Notice.

7. Methods other than those contained in Annexure A to this Notice may be used with the written consent of the National Air Quality Officer.

8. In seeking the written consent referred to paragraph 7 above, an applicant must provide the National Air Quality Officer with any information that supports the equivalence of the method other than those listed in Annexure A to this Notice.

Reporting requirements

9. The operator of a temporary asphalt plant must—
   (1) submit at least one (1) emission report every six months to the relevant air quality officer in the format set out in Annexure A to this Notice;
   (2) provide any additional emission reports as requested by an air quality officer; and
   (3) produce the record of the measurement results for inspection if requested to do so by an air quality officer.

(10) For reporting requirements, emissions shall be measured by stack emission measurement and may be supplemented by means of mass balances or engineering calculations.

Emission Standards

(1) All temporary asphalt plants must comply with the emission limits and requirements as scheduled in the tables below. All limit values are expressed on daily averages, at specified reference conditions.

Description	The production mixtures of aggregate and tar or bitumen to produce road surfacing in temporary asphalt plants.		
Application	All temporary asphalt plants.		
Substance or mixture of substances		**Plant status**	**Limit value (dry mg / Nm^3 at 273K and 101.3kPa**
Common name	**Chemical / Commonly-used symbol**		
Particulate matter	N/A	New	50
		Existing	120
Sulphur dioxide	SO_2	New	1000
		Existing	1000
Total volatile organic compounds from vapour recovery or thermal destruction units.	N/A	New	150
		Existing	150

ANNEXURE A: EMISSION MEASUREMENT METHODS 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 sulphur 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 sulphur 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 10780: Stationary source emissions – Measurement of velocity volume flow rate of gas steams in ducts.

(h) ISO 11632: Stationary source emissions – Determination of mass concentration of sulphur dioxide – Iron chromatography method.

(i) ISO 12141: Stationary source emissions – Determination of mass concentration of particulate matter (dust) at low concentrations- Manual gravimetric method.

(j) ISO 14164: Stationary source emissions – Determination of the volume flow-rate of gas streams in ducts - Automated method.

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 – CO_2, O_2 by instrumental methods

(n) Method 3B – CO_2, O_2 by Orsat apparatus

(o) Method 3C – CO_2, CH_4, N_2, O_2 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 5I – Determination of Low Level Particulate Matter Emissions

(t) Method 6 – Sulphur Dioxide (SO_2)

(u) Method 6A – SO_2, CO_2

(v) Method 6B – SO_2, CO_2 - Long Term Integrated

(w) Method 6C – SO_2 – Instrumental

(x) Method 6C – Figures SO_2

(y) Method 8 – Sulfuric Acid Mist

(z) Method 9 – Visual Opacity

(aa) Method 17 – In-Stack Particulate (PM)

(bb) Method 19 – SO_2 Removal & PM, SO_2, NO_X Rates from Electric Utility Steam Generators

(cc) Method 22 – Fugitive Opacity

(dd) Method 28A – Air to Fuel Ratio, Burn Rate - Wood-fired Appliances

(ee) Methods 203A, B, and C – Opacity Determination for Time-Averaged Regulations

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.

ANNEXURE B: TEMPLATE FOR REPORTING EMISSIONS

Emission Measurements Report for a Temporary Asphalt Plants

Name of Enterprise:_____

Declaration of accuracy of information provided:

I, _____, declare that the information provided in this report is in all respects factually true and correct.

Signed at_____on this_____day of _____

_____

SIGNATURE

_____

CAPACITY OF SIGNATORY

1. Enterprise Details

Enterprise Name	
Trading as	
Postal Address	
Telephone Number (General)	
Fax Number (General)	
Industry Type? Nature of Trade	
Land Use Zoning as per Town Planning Scheme	
Land Use Rights if outside Town Planning Scheme	

2. Contact details

Responsible Person Name	
Telephone Number	
Cell Phone Number	
Fax Number	
E-mail address	

3. Serial number, product name and model of the temporary asphalt plant

Serial Number	Product Name	Product Model	Capacity

4. Energy used

Energy source	Sulphur content of fuel (%) (if applicable)	Ash content of fuel (%) (if applicable)	Design consumption rate (volume)	Actual consumption rate (volume)	Units (quantity / period)	

5. Point source parameters

Unique stack ID	Point source name	Height of release above ground	Height above nearby building [m]	Diameter at stack tip / vent exit [m]	Actual gas exit temperature	Actual gas volumetric flow	Actual gas exit velocity [m/s]

6. Point source emissions

Unique stack ID	Pollutant name	Daliy Average Values	Emission hours [e.g. 07H00 – 17H00]	Type of emission [continuous / intermittent]		

AQA NOTICES AND REGULATIONS AS AT 31 AUGUST 2014

AQA NOTICES AND REGULATIONS	DATE	GAZETTE NUMBER
Commencement notice of certain sections of 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 VTAPA	17 August 2007	30164
Highveld Priority 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
Regulations implementing and enforcing the VTAPA	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)(f),51(3),60 and 61(APPA repealed)	26 March 2010	33041
National list of activities and associated minimum emission	31 March 2010	33064

standards		
Highveld Priority Area AQMP	02 March 2012	35072
National Ambient Air Quality Standard for Particulate Matter with Aerodynamic Diameter Less than 2.5 Micron Metres (PM2.5)	29 June 2012	35463
Declaration of Waterberg-Bojanala Priority Area	08 March 2013	36207
Declaration of a Small Boiler as a Controlled Emitter and Establishment of Emission Standards	1 November 2013	36973
Regulations Prescribing the Format of the Atmospheric Impact Report	11 October 2013	36904
National Dust Control Regulations	1 November 2013	36974
List of Activities which result in Atmospheric Emission which have or may have a significant Detrimental Effect on the Environment, including Health, Social Conditions, Economic Conditions, Ecological Conditions, or Cultural Heritage	22 November 2013	370554
Amendment to the 2007 National Framework for Air Quality Management of South Africa	29 November 2013	37078

Declaration of Temporary Asphalt Plants as a Controlled Emitter and Establishment of Emission Standards	28 March 2014	37461
National Environmental Management Air Quality Amendment Act 2014	19 May 2014	37666
Regulation Regarding Air Dispersion Modelling	11 July 2014	37804

NOTES