
GENERAL NOTICE

NOTICE 798 OF 2008

DEPARTMENT OF MINERALS AND ENERGY

NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998

(ACT NO 107 OF 1998)

PUBLICATION OF THE SECOND EDITION ENVIRONMENTAL MANAGEMENT PLAN UNDER SECTION 15(2) (b) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO 107 OF 1998)

I, Sandile Nogxina, hereby publish in terms of section 15(2) (b) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), the Second Edition Environmental Management Plan of the Department of Minerals and Energy for adoption with effect from the date of Publication

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DIRECTOR GENERAL, DEPARTMENT OF MINERALS AND ENERGY

Department of Minerals and Energy

Second Edition

Environmental Management Plan

Compiled in terms of section 11 (2) of the National Environmental Management Act,
1998 (Act No. 107 of 1998)

March 2008

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Need and purpose of Environmental Management Plan.....	12
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2. MANDATE AND INSTITUTIONAL STRUCTURE

2.1 Mandate, mission, vision and values of the Department.....	14
2.2 Key strategic objectives of Government on minerals and energy.....	14
2.3 Institutional framework.....	15
2.3.1 Mineral Development Branch.....	16
2.3.2 Mine Health and Safety Inspectorate.....	19
2.3.3 Hydrocarbons, Energy Planning and Clean Energy Branch.....	20
2.3.4 Electricity and Nuclear Branch.....	20
2.3.5 Public Entities under the Minister of Minerals and Energy.....	21

3. LEGISLATION AND POLICY ON MINERALS AND ENERGY

3.1 Legislative framework for environmental management.....	22
3.1.1 The Constitution.....	22
3.1.2 National Environmental Management Act, 1998.....	23
3.1.3 Legislation administered by the Department of Minerals and Energy.....	24
3.1.4 Other Statutes administered by Public Enterprise.....	29
3.1.5 Energy – related Statutes pertaining to environmental matters.....	30
3.2 Policy framework.....	32
3.2.1 Environmental Management Policy, 1998.....	32
3.2.2 Minerals and Mining Policy for South Africa.....	33
3.2.3 Energy Policy of the Republic of South Africa, 1998.....	35
3.2.4 Renewable Energy Policy for South Africa, 2003.....	36
3.2.5 Radioactive Waste Policy and Strategy, 2005.....	37

4. INTERNATIONAL COLLABORATION

4.1 Conventions.....	38
4.2 Bilateral Agreements.....	44
4.3 Other International Commitments.....	45
4.3.1 WSSD Johannesburg Plan of Implementation.....	45
4.3.2 Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development.....	46
4.3.3 Mining, Minerals and Sustainable Development.....	47
4.3.4 New Partnership for African Development.....	48
4.3.5 African Mining Partnership.....	48

5. PROGRAMMES AND STRATEGIES FOR ENVIRONMENTAL MANAGEMENT

5.1 Programmes and Strategies for the Energy Sector.....	49
5.1.1 Clean Development Mechanism	49
5.1.2 Renewable Energy Strategy.....	50
5.1.3 Energy Efficiency Strategy.....	50
5.1.4 Paraffin Information Safety Strategy.....	50
5.1.5 South African Supplier Development Agency.....	51
5.1.6 Integrated National Electrification Strategy.....	51
5.1.7 Free Basic Electricity.....	51
5.1.8 Integrated Energy Plan	52
5.1.9 Restructuring of the Electricity Distribution Industry.....	53
5.1.10 Integrated Energy Centers.....	53
5.1.11 Appliance Labeling Campaign.....	53
5.1.12 Gas Infrastructure Plan.....	54
5.1.13 Women in Nuclear.....	54

5.2 Programmes and Strategies for the Mining Sector.....	54
5.2.1 Sustainable Development through Mining Strategy.....	54
5.2.2 Database for Derelict and Ownerless Mines.....	58
5.2.3 Regional Mine Closure Strategies.....	59
5.2.4 Witwatersrand Water Ingress Project.....	66
5.2.5 Strengthening Environmental Enforcement Programme.....	71
5.2.6 Rehabilitation of unsafe shafts and holdings within the Witwatersrand gold mining area.....	71
5.2.7 Rehabilitation of Derelict and Ownerless Mines Programme.....	72
 6. STRATEGIC OBJECTIVES AND OUTCOMES OF CORE ENVIRONMENTAL FUNCTIONAL AREAS	
6.1 Core Environmental Functions.....	72
6.2 Strategic Objectives and Outcomes.....	72
 7. PRINCIPLES, NORMS AND STANDARDS FOR ENVIRONMENTAL MANAGEMENT	
7.1 Principles for Sustainable Development.....	87
7.2 Environmental Quality Standards and Criteria.....	89
 8. COLLABORATION WITH OTHER DEPARTMENTS	
8.1 Memoranda of Understanding.....	91
8.2 Inter – Departmental Committees.....	91
8.2.1 Committee for Environmental Coordination.....	91
8.2.2 Government Task Team for Mine Water Management and Closure.....	92
8.2.3 Sustainable Development through Mining Committee.....	92
8.2.4 Research Projects.....	92
8.2.5 Regional Mineral Development and Environment Committees.....	93

9. COMPLIANCE WITH POLICIES AND PRINCIPLES

9.1 Procedures for Monitoring Compliance.....	93
9.1.1 Regional mining inspections and reporting procedures.....	93
9.1.2 Internal branch management committees.....	94
9.1.3 Multi-stakeholder and inter-departmental communication structures.....	94
9.1.4 Tri-semester and annual reports.....	94
9.1.5 Ministerial enquiries or complaints received.....	94
9.1.6 EMP Performance Assessment requirements.....	94
9.1.7 EMP Compliance reports.....	95
9.2 Compliance with NEMA Principles of Sustainable Development.....	95
9.3 Promotion of Sustainable Development by the Mining Industry.....	119
9.4 Measures to improve Environmental Compliance.....	121
9.5 Challenges with Ensuring Compliance.....	121

APPENDICES

APPENDIX A	Organizational structure and functions of the Mineral Development Branch
APPENDIX B	Organizational structure and functions of the Mineral Regulation Branch
APPENDIX C	Organizational structure and functions of the Mineral Policy and Promotion Branch
APPENDIX D	Organizational structure and functions of the Hydrocarbons, Energy Planning and Clean Energy Branch
APPENDIX E	Organizational structure and functions of the Electricity and Nuclear Branch
APPENDIX F	Acknowledgements
APPENDIX G	References

TABLES

Table 1	Responsibilities of Public Entities under the Department of Minerals and Energy	21
Table 2	International Conventions relevant to Offshore Prospecting and Mining Activities	39
Table 3	International Conventions	40
Table 4	Functions of the Department of Minerals and Energy Relating to Environmental Management	73
Table 5	Strategic objectives focus areas and expected outcomes and impacts of functional areas with environmental responsibility, 2005/6 – 2009/10	82
Table 6	List of standards and criteria applied	89
Table 7	Compliance relating to sustainable development.....	96
Table 8	Compliance relating to integration.....	103
Table 9	NEMA principles on participation, empowerment, transparency in decisions	106
Table 10	Compliance relating to environmental justice and equity between and within generations.....	111
Table 11	Compliance relating to maintaining ecological integrity.....	115
Table 12	Compliance relating to International responsibilities	117
Table 13	Mining industry compliance with statutory environmental requirements	120

FIGURES

Figure 1	Four elements of Sustainable Development	55
Figure 2	Balancing the four elements of Sustainable Development.....	56
Figure 3	Environmental Mitigation Curve	61
Figure 4	Map indicating the gold mining areas in South Africa	64
Figure 5	North –south section through the Western Basin, showing current level.....	67
Figure 6	North – south section though the Western Basin, showing impact of pumping	68

ABBREVIATIONS

<i>BEE</i>	Black Economic Empowerment
<i>CEC</i>	Committee for Environmental Coordination
<i>CGS</i>	Council for Geoscience
<i>CDM</i>	Clean Development Mechanism
<i>CSIR</i>	Council for Scientific and Industrial Research
<i>DEAT</i>	Department of Environmental Affairs and Tourism
<i>Dept EMP</i>	Departmental Environmental Management Plan
<i>DME</i>	Department of Minerals and Energy
<i>DNA</i>	Designated National Authority
<i>DWAF</i>	Department of Water Affairs and Forestry
<i>EBSST</i>	Electricity Basic Service Support Tariff
<i>ECL</i>	Environmental Critical Level
<i>EDI</i>	Energy Distribution Industry
<i>EDSS</i>	Environmental Decision Support System
<i>EIA</i>	Environmental Impact Assessment
<i>EIP</i>	Environmental Implementation Plan required in terms of NEMA, 1998
<i>EM Plan</i>	Environmental Management Plan required in terms of MPRDA, 2002
<i>EM Programme</i>	Environmental Management Programme required in terms of MPRDA, 2002
<i>EMPR</i>	Environmental Management Programme Report required in terms of Minerals Act, 1991
<i>GHG</i>	Green House Gas
<i>GIS</i>	Geographical Information System
<i>HDSAs</i>	Historical Disadvantaged South Africans
<i>HIV and Aids</i>	Human Immunodeficiency Virus and Aids
<i>I & A Ps</i>	Interested and Affected Parties
<i>IDP</i>	Integrated Development Plan
<i>IGFMMMSD</i>	Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development
<i>IEM</i>	Integrated Environmental Management
<i>INEP</i>	Integrated National Electrification Programme

MEM	Mine Environmental Management
MHSI	Mine Health and Safety Inspectorate
MINTEK	Council for Mineral Technology
MMSD	Minerals, Mining and Sustainable Development
MoU	Memorandum of Understanding
MPRDA	Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)
NECSA	Nuclear Energy Corporation of South Africa
NEMA	National Environment Management Act, 1998 (Act No. 107 of 1998)
NEPAD	New Partnership for Africa's Development
NGOs	Non-governmental organizations
NNR	National Nuclear Regulator
ODA	Overseas Development Assistance
RED	Regional Electricity Distributors
RMCS	Regional Mine Closure Strategies
RSA	Republic of South Africa
SA	South Africa
SABS	South African Bureau of Standards
SADC	Southern African Development Community
SASDA	South African Supplier Development Agency
SD	Sustainable Development
SDM	Sustainable Development through Mining
SIAT	Site Inspection Assistant Tool
SMME	Small, Micro and Medium Enterprises
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
WRC	Water Research Commission
WSSD	World Summit on Sustainable Development
WWIP	Witwatersrand Water Ingress Project

1. INTRODUCTION

1.1 Need and purpose for the Departmental Environmental Management Plan

Section 11 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA, 1998) requires national and provincial departments listed in Schedules 1 and 2 of NEMA, 1998, to prepare Environmental Implemental Plans and/or Environmental Management Plans within at least every four years. NEMA, 1998 divides national Government department into Schedule 1 or Schedule 2 departments. Schedule 1 departments are required to prepare EIPs as these departments exercise functions which may affect the environment. Schedule 2 departments are required to prepare EMPs as these departments exercise functions that involve the management of the environment.

The Department of Minerals and Energy (DME) falls within the ambit of the Schedule 2 departments and is required in terms of section 11 (3) of NEMA, 1998 to prepare a Departmental Environmental Management Plan (Dept EMP) every four years since it exercises functions that include the management of the environment.

The purpose of the Dept EMP as described in Section 12 of NEMA, 1998 is to:

- coordinate and harmonize the environmental policies, plans, programmes and decisions of the national Government departments that exercise functions that may affect the environment, or are entrusted with responsibilities aimed at the achievement of a sustainable environment;
- give effect to the principles of cooperative governance as contemplated in Chapter 3 of the Constitution;
- secure the protection of the environment;
- prevent unreasonable actions by provinces in respect of the environment that are prejudicial to the economic or health interests of other provinces or the country; and
- enable the Minister of Environmental Affairs and Tourism to monitor the achievement, promotion, and protection of a sustainable environment.

The first Edition Dept EMP of the Department of Minerals and Energy was published on 23 February 2001 in the *Government Gazette* No. 22080 of 23 February 2001. The Second Edition Dept EMP covers the period 2005/06-2009/10. Apart from meeting the requirements stated in NEMA, 1998, the

Dept EMP also explains the Department's contribution towards achieving the broader national sustainable development objectives.

The key sources of information reviewed in preparing this Dept EMP include legislation and policy documents, various international agreements relating to minerals, energy and environmental management, as well as several internal reports and documents of the DME.

The Dept EMP is presented in the following nine sections:

1. *Introduction:* The introduction sets out the need, purpose and context of the Dept EMP within the relevant legislative requirements in terms of NEMA, 1998.
2. *Mandate and institutional structure:* The second section discusses the mandate, mission, vision, values, key strategic objectives and institutional structure of the DME.
3. *Legislation and policy on minerals and energy:* The legislation and policy relevant to the functions of the DME is discussed in section 3.
4. *International collaboration:* The subject of section 4 is the international conventions or agreements to which the South African Government, through the DME, subscribes and which support the contribution of the minerals, mining and energy sectors towards sustainable development.
5. *Programmes and strategies for environmental management:* The programmes and strategies of the Department that contribute most directly to sustainable development and the environment are outlined in section 5.
6. *Strategic objectives and outcomes of core environmental functional areas:* The strategic objectives and outcomes of core functional areas of the Department that contribute most directly to sustainable development and the environment are outlined in section 6.
7. *Principles, norms and standards for environmental management:* The subject of section 7 is the norms, standards and principles for environmental management.
8. *Collaboration with other Departments or organs of state:* Section 8 describes the nature of collaboration within and between the DME and other departments or organs of state.
9. *Compliance with policies and principles:* The subject of section 9 is compliance by the minerals, mining and energy sectors with the policies and legislation that relate to environmental management.

2. MANDATE AND INSTITUTIONAL STRUCTURE

2.1 Mandate, mission, vision and values of the Department

The mandate of the Department of Minerals and Energy is to provide services for the effectual transformation and governance of the minerals and energy industries for economic growth and development, thereby improving the quality of life of the people of South Africa. The execution of the mandate is guided by a Mission, Vision, and a set of values which are articulated in the DME's Strategic Plan for 2005/6-2009/2010.

The mission of the Department is to regulate and promote the minerals and energy sector to the benefit of all citizens, while the vision is to establish world class minerals and energy sectors through sustainable development. The values adopted by the Department are aimed at improving the quality of service and the effectiveness with which it is delivered. These values include *Batho Pele*, excellence, professionalism, integrity, equity, and loyalty.

2.2 Key strategic objectives of Government on minerals and energy

The strategic objectives of Government over the next five years with regard to minerals and energy are outlined in the DME Strategic Plan for 2005/6-2009/10, which are to:

- actively contribute to sustainable development;
- redress past imbalances and bridge the gap between the first and second economies;
- implement minerals and energy economic policies and legislation;
- govern the minerals and energy sectors to be healthier, cleaner and safer; and
- review and develop appropriate structures, processes, systems and skills as well as their maintenance.

Over the next five years, the objective of actively contributing to sustainable development will be achieved through infrastructure development, increased investment in the minerals and energy sectors, increased beneficiation of minerals, increasing access to modern energy carriers and reducing the impact of mining and energy activities on the environment and public health and safety.

The objective of redressing past imbalances will be achieved through the promotion of broader participation in the minerals and energy sectors, direct intervention in communities, increased Black Economic Empowerment (BEE) and Small, Micro and Medium Enterprises (SMME) participation, deracialising and gender equity within the minerals and energy sectors.

The objective of implementing the minerals and energy economic policies and legislation will be achieved by ensuring the orderly and equitable exploitation of minerals and energy, promoting internationally competitive prices and security of energy supply.

The objective of governing the minerals and energy sectors to be healthier, cleaner, and safer will be achieved through the effective implementation policies and legislation, and by embarking on promotional and regulatory activities and programmes that will sustain and improve the industries' health and safety standards.

The final objective of reviewing and developing appropriate structures, processes, systems and skills as well as their maintenance will be achieved through the alignment of administrative structures, the development of appropriate skills, as well as the introduction of processes and systems that enable the effective and efficient implementation and execution of policy and legislation.

The strategic objectives and outcomes of the functional areas of the Department of Minerals and Energy during the period 2005/2006 – 2009/2010 that relate to the environment are discussed in more detail in section 6 (Table 5).

2.3 Institutional framework

The Department of Minerals and Energy undertakes its mandate, under the direction of the Director-General, through the following programmes / branches:

- Mineral Development;
- Mine, Health and Safety Inspectorate;
- Hydrocarbons and Energy Planning;
- Nuclear and Electricity; and
- Administration.

The DME underwent a dedicated restructuring process to effectively achieve the key strategic objectives set out in its Strategic Planning for the next 5 years and to ensure good service delivery.

2.3.1 Mineral Development Branch

The purpose of the Mineral Development Branch is to effectively promote, manage and regulate a locally and regionally integrated, globally competitive mineral resource industry to achieve equitable and sustainable development for the benefit of all South Africans. The organizational structure and functions of the Branch with its Chief Directorates are included as Appendix A. The functions of the Branch include the control of mineral resource management; promoting mineral development and providing advice on trends in the mining industry; and directing and administering regional offices on economic growth and development. The Mineral Development Branch consisted of three Chief Directorates, i.e.:

- Mineral Resource Management, with the functions to ensure mine environmental management, manage prospecting and mining rights, integrate social planning with National Economic objectives and to provide specialized mine economics services.
- Mineral Policy and Investment, with the functions to manage the small-scale mining development framework, research and advise on local and international mineral economic trends, control and regulate the processing and trade in diamonds, provide mineral resource information for mining investment and to identify and align strategic beneficiation opportunities with policy objectives and the regulatory process.
- Mineral Development and Administration

The restructuring process for the Mineral Development Branch was, however, completed in November 2005 which divided the Branch into the following two Branches:

2.3.1.1 Mineral Regulation Branch

The purpose of the Mineral Regulation Branch is to direct and administer the nine regional offices of the DME on economic growth and development. The main functions are to manage the administration and evaluation of the applications for reconnaissance permissions, prospecting rights, mining rights

and mining permits within the eastern, central and western mining regions. The organizational structure and functions of the Branch with its Chief Directorates are included as Appendix B. The three Chief Directorates for Mineral Regulation and Administration, each responsible for one of the three regions are respectively the Eastern Regions, Central Regions and the Western Regions.¹ Their functions are to direct and administer regional offices on economic growth and development, manage the registration of prospecting and mining rights, and regulate and promote economic growth and development through the exploitation of mineral and energy resources.

Each one of the three Chief Directorates has a directorate responsible for Licensing and Legal Compliance whose core functions are to:

- Manage the rehabilitation of derelict and ownerless mines and assist mines threatened with closure as a result of the inflow of extraneous water.
- Provide a specialized mine economic service.
- Manage prospecting and mining rights.
- Provide a specialized empowerment transaction assessment service.
- Integrate the social plan with national economic objectives.

With regard to mine environmental management, there are nine regional offices where the Regional Manager reports to an appropriate Chief Director. Within each regional office, the Sub directorate: Mine Environmental Management exists whose environmental functions are to adjudicate environmental reports accompanying applications for permits and rights, to enforce environmental management in terms of the MPRDA, 2002 and other applicable law and to address the environmental legacy of mining in each region.

The Petroleum Agency of South Africa (PASA) has been appointed by the Minister of Minerals and Energy to act as the designated agency for petroleum exploration and production. They fulfill the same functions as the Regional offices of the DME.

¹ Eastern Regions comprises Limpopo, Eastern Cape and Kwazulu-Natal; Central Regions comprises Gauteng, Northern Cape and Free State; Western Regions comprises North West, Western Cape and Mpumalanga.

2.3.1.2 Mineral Policy and Promotion Branch

The purpose of the Mineral Policy and Promotion Branch is to formulate and promote mineral related policies that will encourage investment into the mining and mineral industry thus making South Africa attractive to investors. The organizational structure and functions of the Branch with its Chief Directorates are included as Appendix C.

The Branch has three Chief Directorates which deal with mining, mineral and environmental policy, mineral promotion and economic analysis. The Chief Directorate on Mining and Mineral Policy has one directorate with functions that relate to the environment. The functions of the Directorate for Mine Environment Policy, Research and Development include to:

- Advise on mine environmental policy, legislation, norms, standards.
- Conduct research and provide advice on matters pertaining to mine rehabilitation, water ingress, decanting problems and other past legacies.
- Develop measures to strengthen the implementation of environmental requirements in terms of the MPRDA, 2002.
- Participate in international and national processes and obligations.
- Develop and coordinate the national strategy for the rehabilitation of derelict and ownerless mines.
- Coordinate the development of an information system.

The functions of the Directorate for Mineral Policy Development include to:

- Conduct research to position South Africa's mining and mineral industry and review mining and mineral policies in general.
- Coordinate the harmonization of legislation.
- Draft legislation and regulations.
- Identify strategies and compile guidelines for the implementation of mine and mineral policies.

Apart from mine environmental management and for the purpose of reporting on sustainable development, the Chief Directorate: Mineral Promotion furthermore promotes mineral development and advice on trends in the mining industry to attract investment. This Chief Directorate consists of three Directorates, i.e. Mineral Economics, Small-scale mining and Beneficiation Economics. The Directorate: Mineral Economics advise on local and international development and tendencies in the field of precious metals, minerals and ferrous minerals, non-ferrous metals, minerals and energy commodities, industrial minerals, mineral economics and render a mineral statistical service in this regard. The Directorate: Small-scale mining facilitate and co-ordinate institutional support and develop small-scale mining projects in the nine provinces. The Directorate: Beneficiation Economics survey priorities and select particular mineral commodity opportunities for local beneficiation and develop policy interventions which address constraints and promote further local processing of mineral commodities.

2.3.2 Mine Health and Safety Inspectorate

The purpose of the Mine Health and Safety Inspectorate is to execute the Department's statutory mandate to protect the health and safety of the mine employees and people affected by mining activities. The measurable objective is to reduce mining-related deaths, injuries and ill health, through the formulation of national policy and legislation and the provision of advice and systems that monitor and audit compliance by the mining sector. Key focus areas relating to the environment and well-being of people affected by mining are to address hazards emanating from mining which impact on public health (for example the dust originating from mine dumps and fumes from processing plants) and to reduce fatalities, injuries and occupational diseases through enforcement activities, audits and inspections on mines. Environmental matters within the mining area as well as those impacts which migrate outside the mining area, such as dust, noise and water pollution, are dealt with by the Mineral Regulation Branch in terms of the MPRDA, 2002, through the Environmental Management Plan or Programme process.

The work of the Inspectorate is regulated by the Mine Health and Safety Act, 1996 (Act No. 29 of 1996). The Chief Inspector of Mines also heads the tripartite structures established under the Mine Health and Safety Act, namely the Mine Health and Safety Council and the Mining Qualifications Authority.

2.3.3 Hydrocarbons, Energy Planning and Clean Energy Branch

The purpose of the Hydrocarbons, Energy Planning and Clean Energy Branch is to regulate hydrocarbon energy carriers and ensure energy planning. The functions of the Branch are to regulate and promote hydrocarbon energy carriers, ensure sustainable development of the energy sector through integrated planning and to facilitate the implementation of renewable energy technologies, regulate and promote Clean Development Mechanism (CDM) Activities. The organizational structure and functions of the Branch with its Chief Directorates are included as Appendix D. The Branch consists of three Chief Directorates:

- Hydrocarbons, with the functions to ensure implementation and compliance monitoring of legislation by all stakeholders in the petroleum and gas industries, to direct policy and regulations development and promote transformation within the coal and gas industry.
- Energy Planning, with the functions to develop energy efficient policies, legislation and regulation, to manage and administer an information system and carry out integrated energy planning functions.
- Clean Energy, with the functions to fulfill international energy commitments and obligations under the United Nations Framework Convention on Climate Change pertaining to the Kyoto Protocol and to formulate and monitor the implementation of the ten year strategy for renewable energy integration into the mainstream energy supply in RSA.

2.3.4 Electricity and Nuclear Branch

The purpose of the Electricity and Nuclear Branch is to manage the electricity sector and the nuclear industry. The organizational structure and functions of the Branch with its Chief Directorates are included as Appendix E. Specific functions within the Branch are the development, monitoring, enhancement and implementation of electricity policies and programmes, the management of the South African Nuclear Industry and ensure overall control of source and special nuclear materials in terms of nuclear legislation and to oversee the Integrated National Electrification Programme (INEP) for the Department. The Branch consists of three Chief Directorates, i.e.:

- Electricity, with the functions to manage electrification policies, to develop, implement and monitor policies and strategies relating to the restructuring of the Electricity Supply Industry, to undertake research on national and international trends/development that may impact on the Electricity Supply Industry and to develop policy and legislation with respect to electricity regulation.
- Nuclear, with the functions to administer all matters related to Nuclear Non-Proliferation as required by legislation and international agreements, to administer all matters related to nuclear technology and to administer all matters related to nuclear safety as required by legislation and international agreements.
- INEP/BPU, with the functions to manage finance, planning and the implementation of the INEP.

2.3.5 Public Entities under the Minister of Minerals and Energy

Several public entities which have been established under various statutes, report to the Minister of Minerals and Energy. Table 1 presents a summary of the responsibilities of these organizations:

Table 1. Responsibilities of Public Entities under the Department of Minerals and Energy

Organisation	Responsibility
National Nuclear Regulator	Safety of nuclear installations & protection of persons and environment from nuclear damage
National Electricity Regulator	Regulation of energy supply industries, Pilot programmes for supply of free basic energy
Mine Health and Safety Council	Advisor to Minister on safety and health in mines and research and legislative review of mine, health and safety
Mintek	Minerals technology that promotes environmental sustainability
Council for Geoscience	Acquisition and curator ship of national geoscience information.
EDI Holdings	Restructure electricity distribution in terms of the White Paper on Energy.
SA Diamond Board	Regulation of diamond industry sales, processing and exports
Central Energy Fund	Provide access to affordable energy and invest in alternative, cleaner technologies that will improve quality of life.
Nuclear Energy Corporation of South Africa	Research and development in nuclear energy and radiation sciences, Implementation of the Radioactive Waste Management Policy and strategy

The policies, functions and actions of the above organizations are not addressed in this Departmental EMP as these organizations do not function under the control of the Director-General. The Department of Minerals and Energy will, however, encourage them to prepare their own EIPs or EMPs as necessary.

3. LEGISLATION AND POLICY ON MINERALS AND ENERGY

Policies and legislation for the minerals and energy sectors respond to a legacy which includes the alienation of mineral and energy resources from the majority of the population who are black, and/or female; inadequate provision of energy services to most of the citizens; inadequate environmental management practices; lenient health and safety laws; dangerous, unsafe and unhealthy working conditions in mines; dislocated and fragmented community life created in part by the migrant labour system; and, the absence of adequate social capital or infrastructure in mining communities once the mines had ceased operating.

3.1 Legislative framework for environmental management

The Department of Minerals and Energy undertakes its mandate within a legislative and policy framework. With regard to its environmental responsibilities, certain aspects of the Constitution and the National Environment Management Act, 1998 as well as several statutes which the DME administers (see section 3.2) are pertinent.

3.1.1 The Constitution

According to Schedule 4 of the Constitution a provincial executive is responsible for implementing national legislation unless the Constitution or Act of Parliament provides otherwise. In terms of the Constitution, mining is a functional area of exclusive national legislative competence.

The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) confers certain rights to citizens in regard to the environment. Section 24 provides that:

“Everyone has the right:

- a) To an environment that is not harmful to their health or well-being; and

- b) To have an environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –
- i. Prevent pollution and ecological degradation;
 - ii. Promote conservation; and
 - iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable social and economic development”.

Section 8 binds the Government to give effect to this right.

3.1.2 National Environmental Management Act, 1998

The National Environmental Management Act, 1998 (Act 107 of 1998) establishes principles for decision-making on matters affecting the environment, institutions that will promote cooperative governance and procedures for coordinating the environmental functions exercised by organs of state. Chapter 3 provides for the preparation of environmental implementation plans and management plans, their purpose and objects, content, submission, scrutiny and adoption, as well as compliance with them.

The Departmental Environmental Management Plan is expected to describe:

- The functions exercised by the relevant departments in respect of the environment.
- Environmental norms and standards, including norms and standards contemplated in section 146(2) (b) (i) of the Constitution, set or applied by the relevant department.
- Policies, plans and programmes of the relevant department that are designed to ensure compliance with its policies by other organs of state and persons.
- Priorities regarding compliance with the relevant department's policies by other organs of state and persons.
- The extent of compliance with the relevant department's policies by other organs of state and persons.
- Arrangements for co-operation with other national departments and spheres of government, including any existing or proposed memoranda of understanding entered into, or delegation or

assignment of powers to other organs of state, with a bearing on environmental management; and

- Proposals for the promotion of the objectives of integrated environmental management as described in Chapter 5 of NEMA, 1998.

3.1.3 Legislation administered by the Department of Minerals and Energy

3.1.3.1 Mineral and Petroleum Resources Development Act, 2002

The Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) was assented to on 3 October 2002 and came into effect on 1 May 2004. The MPRDA, 2002 makes provision for equitable access to and the sustainable development of the nation's mineral resources. The Preamble emphasizes the following:

- Recognizing that minerals and petroleum are non-renewable natural resources;
- Acknowledging that SA's mineral and petroleum resources belong to the nation and that the State is the custodian thereof;
- Affirming the State's obligation to protect the environment for the benefit of present and future generations, to ensure ecological sustainable development of mineral and petroleum resources and to promote economic and social development;
- Recognizing the need to promote local and rural development and the social upliftment of communities affected by mining;
- Reaffirming the State's commitment to reform and to bring about equitable access to SA's mineral and petroleum resources;
- Being committed to eradicating all forms of discriminatory practices in the mineral and petroleum industries;
- Considering the State's obligation under the Constitution to take legislative and other measures to redress the results of past racial discrimination;
- Reaffirming the State's commitment to guaranteeing security of tenure in respect of prospecting and mining operations; and
- Emphasizing the need to create an internationally competitive and efficient administrative and regulatory regime.

Specifically pertaining to the environment and matters relating to sustainable development, the following sections are relevant:

- Section 2(h) confirms the environmental objects of the Act “to give effect to section 24 of the Constitution by ensuring that the nation’s mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development.
- Section 3(3) provides that the Minister must ensure the sustainable development of SA’s mineral and petroleum resources within a framework of national environmental policy, norms and standards while promoting economic and social development.
- Section 5(4)(a) provides that no person may prospect for or remove, mine, conduct technical co-operations, reconnaissance operations, explore for or produce any mineral or petroleum or commence with any work incidental thereto without the necessary environmental management plans or programmes being approved.
- Section 6 confirms that any process conducted or decision taken in terms of the MPRDA, 2002 is subject to the provisions of the Promotion of Administrative Justice Act, 2000 (Act No.3 of 2000).
- Section 10 provides for consultation with interested and affected parties regarding the application for a permit or right in terms of the MDRDA, 2002.
- Section 12 provides for assistance to HDSAs and vulnerable groups to access prospecting or mining.
- Section 26 provides for the promotion of the beneficiation of minerals.
- Sections 16, 18, 22, 24, 27 provides for procedures and requirements on applications and environmental requirements for a prospecting right and renewals, a mining right or renewals and a mining permit. For petroleum exploration and production sections 74, 76, 79, 81, 83 and 85 provides for the same.
- Sections 17, 18(3) (c), 23, 24(3) (c) and (d) and 27(5) (b) provides criteria for the Minister to grant or refuse the permit or right. With regard to the environment, the criterion “the prospecting or mining will not result in unacceptable pollution, ecological degradation or damage to the environment” applies throughout.

- Sections 19(2)(e), 25(2)(e), 82(2)(d), 86(2)(d) determines the rights and obligations of a holder of a prospecting right, mining right, mining permit, exploration right or production right including compliance to the approved EM Plan or EM Programme.
- Section 37 confirms the principles for environmental management / sustainable development in terms of section 2 of NEMA, 1998 which applies for decision-making throughout.
- Section 38 (1) gives effect to the objectives of Chapter 5 of NEMA, 1998 relating to Integrated Environmental Management.
- Section 38(2) keeps directors of companies or members of closed corporations liable for any unacceptable negative impact on the environment, damage, degradation or pollution advertently or inadvertently caused by the company or closed corporation which they represent or represented.
- Section 39 provides for applicants of a mining right to undertake EIAs and EM Programmes within a specified time-frame of 180 days and for applicants of a prospecting right or mining permit to submit an EM Plan. It also provides for procedural matters and time-frames pertaining to the submission and approval of EM Plans and EM Programmes.
- Section 40 provides for consultation on EM Plans or EM Programmes with all State departments which administer any law pertaining to the environment.
- Section 41 provides for matters relating to financial provision for the remediation, rehabilitation and closure of operations.
- Section 42 provides for the management of mine residue stockpiles and deposits.
- Section 43 provides for mine closure and provisions pertaining to the issuing of a closure certificate.
- Section 44 provides for the removal of buildings, structures and other objects as it relates to closure.
- Section 45 and 46 provides for the Minister's powers to recover costs in the event of urgent remedial measures and to remedy environmental damage. Section 46 also provides for the rehabilitation of derelict and ownerless mines/dumps which is a dedicated function within the Mineral Regulation Branch.
- Section 48 provides for restrictions or prohibition of prospecting and mining on certain land – also in the case of environmentally sensitive areas.

Regulations supporting the MPRDA, 2002 were promulgated in the *Government Gazette No. 26275 of 23 April 2004*. The Regulations address among others, the content of the social and labour plans, the scoping report, environmental impact assessment report, the EM plans or EM programmes, EM Plans/Programmes performance assessment reports, financial provision methodologies, the determination of the quantum, mine closure principles, application procedures, contents for environmental risk reports and mine closure plans. The Regulations also provides for the comprehensive management of mine residue stockpiles and deposits.

Since the President of the RSA assented to the MPRDA, 2002, the DME had the opportunity to identify a number of provisions in the Act requiring amendment. With regard to the environmental impact assessment, agreement between the respective Ministers of Minerals and Energy and of Environmental Affairs and Tourism were reached on the amendments in general in the MPRD Amendment Bill to harmonize EIA requirements with that in the NEMA EIA Regulations as well as the amendment of the definition of "competent authority" in terms of section 1 of NEMA, 1998. It is anticipated that the MPRD Amendment Bill to pass through Parliament for promulgation perhaps within the next financial year.

3.1.3.2 Mining Titles Registration Amendment Act (Act 24 of 2003)

The Mining Titles Registration Act (Act 24 of 2003) was enacted to amend the Mining Titles Registration Act, 1967 with the objectives, among others, of re-regulating the registration of mineral and petroleum titles and to ensure consistency with the Mineral and Petroleum Development Act, 2002.

3.1.3.3 Mine Health and Safety Act, 1996 (Act 29 of 1996)

The Mine, Health and safety Act is administered by the Mine Health and Safety Inspectorate and focuses on reducing the number of fatalities and injuries in the mining industry. It provides for tripartite structures of labour, business, and the Government at all levels of the industry to implement and monitor health and safety management systems, as well as identify causes of accidents.

The specific objects of the Act are captured in more detail in Box 1:

Box 1: Objectives of the Mine Health and Safety Act, 1966

- Protect the health and safety of persons at mines.
- Require employers and employees to identify hazards and eliminate, control and maximize the risks relating to health and safety at mines.
- Give effect to the public international law obligations of the Republic that concern health and safety at mines.
- Provide for employee participation in matters of health and safety through health and safety representatives and committees at mines.
- Provide for effective monitoring of health and safety conditions at mines.
- Provide for enforcement of health and safety measures at mines.
- Provide for investigations and inquiries to improve the health and safety at mines.
- Promote a culture of and training in health and safety in the mining industry and cooperation and consultation on health and safety between the State, employers, employees and their representatives.

3.1.3.4 Precious Metals and Diamond Amendment Acts

The Diamond Amendment Act makes provision for the establishment of the State Diamond Trader which will facilitate the supply of rough diamonds equitably and the Precious Metals and Diamonds Regulator to promote equitable access to rough diamonds to license holders. The main objects of the amendments are to promote the culture of value addition of minerals by maximizing the value of economic benefit of South Africa's economy. The Precious Metal Act amended Chapter XVI of the Mining Rights Act, 1967 to eliminate the barriers to local beneficiation of precious metals and to rationalize the regulation of matters pertaining to the downstream beneficiation of precious metals. The main objective of the Act is to allow for the acquisition and possession of precious metals for the local beneficiation. The DME has also published draft Regulations in terms of the Precious Metals Act, 2005 (Act No. 37 of 2005) for comment.

3.1.3.5 The Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry

The Broad-Based Socio-Economic Empowerment Charter for the South African Mining Industry has been developed in accordance with section 100(2)(a) of the Mineral and Petroleum Resources Development Act, 2002. It establishes a framework, targets and a time-table for affecting the entry of historically disadvantaged South Africans into the mining industry, and enables South Africans to benefit from the exploitation of mining and mineral resources. The Charter requires that historically disadvantaged groups should own 15% equity in existing mines within 5 years and 26% within 10 years. The Charter also urges the formal mining industry to adopt a proactive strategy to encourage black economic empowerment (BEE) and transformation in ownership, management, skills development, employment equity, procurement and rural development.

3.1.4 Other Statutes administered by Public Enterprises

3.1.4.1 Nuclear Energy Act, 1999 (Act No.46 of 1999)

The Nuclear Energy Act provides for the establishment of the South African Nuclear Energy Corporation and promotes research and the processing and enrichment of source material. It also provides for a Safeguards Agreement Administration between the RSA and the International Atomic Energy Agency in relation to the Nuclear Non-Proliferation Treaty, 1991; the control of all source material; enactment of regulations for the management, storage and discarding of radioactive waste and irradiated nuclear fuel and the consent of the Minister of Minerals and Energy prior to the disposal of radioactive fuel.

3.1.4.2 National Nuclear Regulator Act, 1999 (Act No 47 of 1999)

The National Nuclear Regulator Act provides for the establishment of a National Nuclear Regulator to regulate and manage nuclear activities. It also provides for safety standards and regulatory practices for the protection of persons, property and the environment against nuclear damage. The Regulator is also required to provide assurance of compliance with the conditions of nuclear authorizations through the implementation of a system of compliance inspections, fulfill national obligations in respect of

international legal instruments concerning nuclear safety and ensure that provisions for nuclear emergency planning are in place.

3.1.4.3 National Energy Regulator Act, 2004 (Act 40 of 2004)

The object of the National Energy Regulator Act, 2004 is to establish a National Energy Regulator responsible for the regulation of the electricity, piped-gas and petroleum pipeline industries. The Act requires every decision of the Energy Regulator to be in writing, consistent with the Constitution and applicable laws, and in the public interest and to make available to the public all its decisions. This excludes information protected in terms of the Promotion of Access to Information Act, 2000 (Act 2 of 2000).

3.1.4.4 Other statutes that govern parastatal organizations

The following statutes govern parastatals reporting to the Minister of Minerals and Energy.

- Central Energy Fund Act, 1977
- Petroleum Products Act, 1977
- Electricity Act, 1987
- Mineral Technology Act, 1989 and Geoscience Act, 1991

3.1.5 Energy-related Statutes pertaining to environmental matters

DME's obligations under the Nuclear Energy Act in terms of Radio-active Waste, Nuclear liabilities and the IAEA: A Radio-active Waste Management Policy and Strategy was approved by Cabinet at the end of 2005 and the drafting of legislation has commenced in 2006 to implement the policy and strategy.

DME's nuclear non-proliferation obligations under the Nuclear Energy Act: Regulations were drafted on restricted material, source material, special nuclear material and nuclear equipment material.

DME's nuclear obligations under the Disaster Management Act, 2002 (Act No. 57 of 2002): The DME is the National Organ of State for nuclear disaster management in terms of the Disaster Management

Act, 2002 (Act No. 57 of 2002). A Nuclear Disaster Management Plan for DME was developed, consulted with stakeholders and approved by the Director-General on 5 October 2005.

Implementation of the Petroleum Products Amendment Act and Regulations: A petroleum licensing system is provided for in terms of the Petroleum Products Amendment Act, 2003 (Act No. 58 of 2003). Regulations in this regard have also been promulgated.

Environment Conservation Act, 1989 and NEMA, 1998

EIA and the management of energy development is being regulated in terms of the Environment Conservation Act, 1989 and the NEMA EIA Regulations promulgated in terms of section 24(5) read with section 44 of NEMA, 1998. The following activities have been listed requesting a Basic Assessment approach to be followed in terms of the NEMA EIA Regulations:

- The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - (a) the generation of electricity where the electricity output is more than 10 megawatts but less than 20 megawatts;
 - (l) the transmission and distribution of electricity above ground with a capacity of more than 33 kilovolts and less than 120 kilovolts;
- The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas and paraffin, in containers with a combined capacity of more than 30 cubic meters but less than 1000 cubic meters at any one location or site.
- The decommissioning of existing facilities or infrastructure, other than facilities or infrastructure that commenced under an environmental authorization issued in terms of the NEMA EIA Regulations, for:
 - (a) electricity generation;
 - (b) nuclear reactors and storage of nuclear fuel.
- The recommissioning or use of any facility or infrastructure, excluding any facility or infrastructure that commenced under an environmental authorization issued in terms of the NEMA EIA Regulations, for
 - (a) electricity generation;
 - (b) nuclear reactors and nuclear fuel storage

The following activities have been listed requesting an EIA approach to be followed in terms of the NEMA EIA Regulations:

- The construction of facilities or infrastructure, including associated structures or infrastructure, for-
 - (a) the generation of electricity where the electricity output is 20 megawatts or more;
 - (b) Nuclear reaction including the production, enrichment, processing, reprocessing, storage or disposal of nuclear fuels, radio-active products and waste;
 - (c) the above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas and paraffin, in containers with a combined capacity of more than 1000 cubic meters at any one location or site;
 - (d) the refining of gas, oil and petroleum products;
- The construction of filling stations, including associated structures and infrastructure or any other facility for the underground storage of dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin.

The *Gas Act, 2001 (Act No 48 of 2001)* and the Government / Sasol regulatory agreement referred to in section 36 of the Act, aims to:

- Promote the orderly development of the piped gas industry;
- Establish a national regulatory framework; and
- Establish a National Gas Regulator as the custodian and enforcer of the national regulatory framework.

The *Gas Regulator Levies Act, 2002 (Act No. 75 of 2002)* provides for the imposition of levies for the functioning of the national gas regulator and for matters connected thereto.

3.2 Policy framework

3.2.1 Environmental Management Policy, 1998

The aim of the 1998 Environment Policy is to set out the vision, principles, strategic goals and objectives and regulatory approaches that the Government will use for environmental management. The vision of the policy is that of a society in harmony with its environment. To achieve the vision, South Africans are encouraged to work together towards the goal of sustainable resource use and

sustainable living to meet present and future needs. In moving towards the vision, the Government commits itself to abide by several principles of sustainable development.

The strategic goals and objectives that the Government will pursue in meeting its commitment to sustainable development include:

- Creating an effective, adequately resources and harmonized institutional framework and an integrated legislative system, and building institutional capacity in all spheres of government to ensure the effective implementation of this policy.
- Promoting equitable access to, and sustainable use of, natural and cultural resources, and promote environmentally sustainable lifestyles. Integrating environmental impact management with all economic and development activities to achieve sustainable development with the emphasis on satisfying basic needs and ensuring environmental sustainability.
- Developing mechanisms where necessary, and build on existing ones, to ensure that environmental considerations are effectively integrated into existing and new government policies, legislation and programmes, all spatial and economic development planning processes, and all economic activity.
- Establishing mechanisms and processes to ensure effective public participation in environmental governance.
- Promoting the environmental literacy, education and empowerment of South Africa's people.
- Developing and maintain information management systems to provide accessible information to interested and affected parties that will support effective environmental management.
- Developing mechanisms to deal effectively and in the national interest with international issues affecting the environment.

3.2.2 Minerals and Mining Policy for South Africa, 1998

The Government's priorities on minerals and mining are articulated in the 1998 White Paper on Minerals and Mining. Through this policy, the Government aims to maintain and promote a stable legal and fiscal climate, and to create a stable macro-environment in which business can be competitive and

support economic development. In addition the Government will facilitate access to business opportunities, skills and resources to those previously excluded to enable them to compete effectively. Exploration and investment that lead to increased mining output and employment will be promoted, and security of tenure in respect of prospecting and mining operations will be ensured. It is also the intention of the Government that legislative and other measures are taken, to foster conditions that will enable entrepreneurs to gain access to mineral resources on an equitable basis; and that the State is recognized as the custodian of the nation's mineral resources for the benefit of all.

In order to develop South Africa's mineral wealth to its full potential with maximum benefit for the population, the Government will promote the establishment of secondary and tertiary mineral-based industries to add maximum value to raw materials, and undertake and promote research, technology development and transfer that will stimulate the optimal development of mineral resources and ensure that the industry remains competitive.

The Government will encourage, support and facilitate human resource development in the mining and mineral industry, and will endeavour to ameliorate the social consequences of downscaling and mine closure. It will create a framework for a productive approach to industrial relations. Healthy and safe working conditions at all mines will be promoted and, in accordance with national health policies, the Government will ensure that mines deal humanely with the health consequences of work in the mining industry. The Government will also ensure that all employees have a choice of suitable housing and living conditions, and it will regularly review the system of migrant labour with the intention of minimizing its adverse social consequences. In the longer term, the Government will seek to phase out the migrant labour system.

The Government, in recognition of the responsibility of the State as a custodian of the nation's natural resources, will ensure that the development of the country's mineral resources takes place within a framework of sustainable development and in accordance with national environmental policy. This will include ensuring equal treatment and standards in respect of management and regulation of the mineral industry, and conducting the management and regulatory activities in a transparent manner that takes into account the views and interests of all the stakeholders.

The Government will encourage co-operation on mineral and mining matters amongst the countries of the southern African region and base that co-operation on the principle of mutual benefit. It will also develop policies to enhance South Africa's capacity to contribute to the development of the region.

The development of the country's mineral resources will take place within a framework of sustainable development and in accordance with national environmental policy, norms and standards and that the following principles are adhered to:

- Compliance with a single national environmental policy and governance within a framework of co-operative governance.
- Adoption of risk-averse and cautious approach, which includes the consideration of the "no go" option, in decision-making.
- The application of the polluter-pays principle in the regulation and enforcement of environmental management.
- The application of a consistent standard of environmental impact management irrespective of the scale of the mining operation.
- Equitable and effective consultation with interested and affected parties will be undertaken proactively to ensure public participation in the decision-making process. The *audi alteram partem* (hear the other side) rule shall apply to all decision-making.
- Compliance by mining companies with local development objectives, spatial development framework and integrated development planning of the local authorities.
- Application of the principles of Integrated Environmental Management (IEM).
- Capacity building for the effective implementation of environmental management measures and monitoring of compliance.
- Adherence to multiple land use in planning decisions.
- Promotion of a culture of waste minimization, recycling and re-use.
- Identification of problem areas in environmental management and to co-ordinate research.

3.2.3 Energy Policy of the Republic of South Africa, 1998

With regard to energy, the Government's priorities are contained in the 1998 Energy Policy of the Republic of South Africa. These priorities include to:

- Ensure secure access to a balanced mix of alternative energy resources for all people over the long term.
- Promote increased access to affordable electricity services and to satisfy the basic needs with regard to security of supply, affordability by domestic and commercial users, efficiency and equitable access.
- Improve energy governance and the effectiveness of the energy industry by consolidating fragmentation and facilitating increased competition. In this regard, the following are relevant transformation from an industry-led grid electrification programme to an Integrated National Electrification programme; the rationalization of the Electricity Distribution Industry (EDI) into financially viable independent Regional Electricity Distributors; and the promotion of an efficient and internationally competitive liquid fuels industry, the continued availability of quality products throughout the country, the development of an equitable balance between the interests of industry and consumers, an industry supportive of the Government's broader social and economic goals and the inclusion of historically disadvantaged groups.
- Improve Government's capacity to govern energy and energy policy formulation.

3.2.4 Renewable Energy Policy for South Africa, 2003

The Renewable Energy Policy sets out the Government's vision, policy principles and, strategic goals and objectives for promoting the use of renewable energy. The main aim of the policy is to create the conditions for the development and commercial application of renewable technologies. The policy will be evaluated after five years, to consider whether the targets, objectives and outputs are being achieved. The White Paper's target of 10 000GWh renewable energy contribution for final energy consumption by 2013 was confirmed to be economically viable with subsidies and carbon financing. Achieving the target will:

- Add about 1.667MW new renewable energy capacity, with a net impact on GDP as high as R1.071billion a year;
- Create additional government revenue of R299million;
- Stimulate additional income that will flow to low-income households by as much as R128million, creating just over 20 000 new jobs; and

- Contribute to water savings of 16.5million kilolitres, which translates into R26.6million saving.

Renewable energy sources, other than biomass (the energy from plants and plant-derived materials), have not yet been exploited optimally in SA. A Strategy on Renewable Energy which will translate policy goals, objectives and outputs into an implementation plan has also been developed and is explained in more detail in Section 7.1.

3.2.5 Radioactive Waste Policy and Strategy, 2005

The Radioactive Waste Management Policy and Strategy serves as a national commitment to address radioactive waste management in a coordinated and cooperative manner. The emphasis of this policy and strategy document is on the nuclear industry in SA within which the management of radioactive waste is a national responsibility assigned to the Minister of Minerals and Energy as per the Nuclear Energy Act, 1999. The scope of this policy relates to all radioactive wastes, except operational radioactive liquid and gaseous effluent (waste discharge) which is permitted to be released to the environment routinely under the authority of the relevant regulators.

The Policy provides for a National Radioactive Waste Policy Framework through the application of international and national radioactive waste management policy principles and applicable national legislation. The Policy also provides for a framework for Co-operative Governance through the clarification of responsibilities of Government departments, other regulatory bodies, generators and operators. Definitions and a classification of radioactive waste are also provided for in the Policy.

The National Radioactive Waste Management Strategy sets out the communication structures, their Terms of Reference and functions in this regard. It also provides a national process for the implementation of this strategy through the classification of waste scheme, financial provision required, management models for radioactive waste and long-term waste management issues.

4. INTERNATIONAL COLLABORATION

4.1 Conventions

South Africa is a Party to several international conventions which deal with a range of issues on which international action is required for effective environmental management. South Africa's participation in these conventions is consistent with its acceptance of shared responsibility for global and regional environmental issues as outlined in the Environmental Management Policy. The Conventions and other agreements advocate the application of the principles of sustainable development which are elaborated in Section 7. Some of the commitments result from South Africa's membership of the United Nations. However, as a member of the Southern African Development Community (SADC), the country is committed to ensuring that national policies are consistent with the goals of regional coordination. Illustrative of this are the protocols on energy and mining, which advocate common and coordinated approaches to the development of the respective sectors.

The global and regional agreements that relate to the environment are administered by DEAT. Other departments support implementation where it relates to their mandates. South Africa's offshore prospecting and mining activities (marine diamond mining and oil and gas exploration) relate to the international conventions described in Table 2 with whose provisions the DME must abide.

Table 2. International Conventions relevant to Offshore Prospecting and Mining Activities

Name of Convention	Date of Signature / Ratification / Accession	Overall objectives
Geneva Convention on the Continental Shelf (1958)	Date of accession: 9 April 1963. Entered into force on 10 June 1964. Administered by Dept of Foreign Affairs.	To define and delimit the rights of States to explore and exploit the natural resources of the continental shelf.
UN Convention on Law of the Sea	Administered by DEAT.	It provides for the comprehensive codification of the law of the sea.
Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and its Protocol of 1996 (London Guidelines)	South Africa became a signatory in 1972 and ratified the Convention in September 1978.	The convention provides a regulatory framework for the prevention and control of dumping of waste into the sea, where dumping is defined as: <ul style="list-style-type: none"> ▪ Any deliberate disposal at sea of wastes or other matter from vessels, aircrafts, platforms or other man-made structures. ▪ Any deliberate disposal at sea of vessels, aircrafts, platforms or other man-made structures.
Convention on the Prevention of Pollution from Ships (1973) (Marpol) including 1987 Protocol.	South Africa ratified the Convention in March 1975. Convention entered into force on 28. February 1985	Prevention of marine pollution from ships.
The Convention on Wetlands of International Importance especially as Waterfowl habitat (RAMSAR Convention).	RSA ratified the convention in March 1985.	The broad aims of this convention are to stem the loss and to promote wise use of all wetlands. The convention addresses one of the most important issues in RSA, namely the conservation of the country's water supplies, for both the use of the natural and human environments.

On-shore prospecting and mining activities in South Africa too have to conform to international conventions and agreements. The conventions and other agreements in Table 3 are relevant to some of the on-shore activities over which the DME has oversight.

Table 3. International Conventions

Name of Convention	Date of Signature / Ratification / Accession	Overall objectives
Rio Declaration and Principles, Agenda 21	Administered by DEAT.	The main objective of this declaration and agreement is to promote sustainable development.
UN Convention on Biological Diversity	The convention was signed by South Africa in June 1993 and ratified on 2 November 1995.	<ul style="list-style-type: none"> ▪ Conservation of biological diversity; ▪ Sustainable use of its components; and ▪ Fair and equitable sharing of benefits arising from genetic resources.
UN Convention to Combat Desertification and Drought	The Convention was signed on 9 January 1995, and ratified on 30 September 1997.	To combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, particularly in Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, in the framework of an integrated approach which is consistent with Agenda 21, with a view to contributing to the achievement of sustainable development in affected areas.
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	South Africa ratified the convention in 1975.	The protection of endangered species prominent in international trade through appropriate control measures and monitoring the status of such species.
Convention on the Conservation of	South Africa acceded to the convention in	The convention was a response to the need for nations to co-operate in the conservation of animals that

Name of Convention	Date of Signature / Ratification / Accession	Overall objectives
Migratory Species of Wild Animals (Bonn Convention)	December 1991.	migrate across their borders. These include terrestrial mammals, reptiles, marine species and birds. Special attention is paid to endangered species.
Convention on Wetlands of International Importance especially and Waterfowl Habitat (Ramsar Convention)	South Africa ratified the convention in March 1975.	The broad aims of this convention are to stem the loss and to promote wise use of wetlands. South Africa has designated 15 sites to the List of Wetlands of International Importance. The designation of other sites is under consideration,
Protocol for the Protection of the Ozone Layer (Montreal Protocol)	South Africa became a signatory to the protocol in January 1990. ²	The protocol is aimed at ensuring measures to protect the ozone layer.
Convention on the Trans-boundary Movement of Hazardous Wastes and their Disposal	Ratified in May 1994	<ul style="list-style-type: none"> ▪ Reduce transboundary movements of wastes subject to the Convention to a minimum consistent with the environmentally sound and efficient management of such wastes; ▪ Minimize the amount and toxicity of wastes generated and ensure their environmentally sound management as closely as possible to the source of generation; and ▪ Assist least developed countries in environmentally sound management of the hazardous and other wastes they generate
UN Framework Convention on Climate Change	Ratified in August 1997	The ultimate objective is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system.
Kyoto Protocol	South Africa acceded to the Protocol on	The Kyoto Protocol is an amendment to the United Nations Framework Convention on Climate Change

² • South Africa also ratified the subsequent London Amendments to the protocol designed to restrict the use of Chlorofouro-carbons (CFCs) and halons. Even though the Copenhagen Amendments to the protocol have not yet been ratified, South Africa has acted in full compliance with these amendments and is in the process of ratifying them.