

2 ADMINISTRATIVE AND LEGAL FRAMEWORK

This chapter outlines the South African institutional and administrative structures, key legislative requirements and other relevant local legislation and international conventions applicable to the proposed exploration activities and EMP process.

2.1 SOUTH AFRICAN INSTITUTIONAL AND ADMINISTRATIVE FRAMEWORK

2.1.1 Department of Mineral Resources and Energy (DMRE)

The DMRE is the public trustee of South Africa's mineral and petroleum resources. According to the MPRDA, as amended, read with the National Environmental Management Act (No. 107 of 1998: NEMA), as amended, the Minister (or designated authority) is responsible for, *inter alia*:

- Approving or refusing an EMP prepared as part of exploration or production right applications;
- Granting or refusing, *inter alia*, any reconnaissance permit, exploration right and production right; and
- Prescribing and levying any fee, in consultation with the Minister of Finance, payable in terms of this Act.

The Minister is required to take into account environmental policy, norms and standards while promoting economic and social development in order to ensure that the development of South Africa's mineral and petroleum resources is undertaken in a sustainable manner.

2.1.2 Petroleum Agency South Africa (PASA)

In terms of Section 70 of the MPRDA, the Minister, in June 2004, designated various duties pertaining to petroleum exploration and production to PASA.

PASA is responsible for promoting the exploration of oil and gas resources and the optimal development thereof on behalf of the South African government. As such, PASA deals with the regulation and monitoring of exploration and production activities and endeavours to make sure that all such activities have long-term economic benefit for South Africa. In addition, PASA is the custodian of the national exploration and production database for petroleum.

PASA is tasked with reviewing applications for, *inter alia*, exploration rights and production rights and making recommendations to the Minister accordingly.

2.1.3 Department of Forestry, Fisheries and the Environment (DFFE)

The DFFE is the custodian of environmental matters and is tasked with ensuring protection of the environment and conservation of natural resources in the context of sustainable development. DFFE is responsible for the administration of applications for and the issuing of environmental authorisations in terms of NEMA and the EIA Regulations 2014, excluding applications related to mining and petroleum for which DMRE is the competent authority. DFFE remains a commenting authority for these applications.

2.1.4 South African Maritime Safety Authority (SAMSA)

The SAMSA was established in terms of the South African Maritime Safety Authority Act, 1998 (No. 5 of 1998) and reports to the Minister of Transport. The Act specifies that SAMSA's objectives are to ensure safety of life

and property at sea, prevent and combat pollution of the marine environment by ships and promote the Republic's maritime interests. To this end, SAMSA provides the following (www.samsa.org.za):

- Safety and environment protection standards for responsible maritime transport operations;
- Monitoring and enforcing compliance with safety and environment protection standards;
- The capability to respond to marine pollution incidents and other maritime emergencies; and
- The capability to detect, locate and rescue people in maritime distress situations.

SAMSA administers several pieces of legislation relating to, *inter alia*, marine pollution, marine traffic and the transport of goods by sea and issues licences or permits related to these aspects.

2.1.5 Transnet National Ports Authority (TNPA)

TNPA is responsible for managing and controlling South Africa's commercial ports (Saldanha, Cape Town, Mossel Bay, Port Elizabeth, Ngqura, East London, Durban and Richards Bay) and is accountable to the Minister of Transport. TNPA's mandate is informed by the National Ports Act, 2005 (No. 12 of 2005) and its purpose is to "*own, manage, control and administer ports to ensure their efficient and economic functioning*".

No person other than TNPA may provide a port service or operate a port facility unless an agreement has been entered into with TNPA or in terms of a licence issued by TNPA.

2.2 SOUTH AFRICAN LEGISLATION

2.2.1 Introduction

In terms of Section 24 of the Constitution of South Africa, 1996 (No. 108 of 1996) "*everyone has the right:*

- (a) *to an environment that is not harmful to their health or well-being; and*
- (b) *to have the 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 economic and social development*".

The MPRDA gives effect to Section 24 of the Constitution by ensuring that South Africa's mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development.

NEMA, as amended, provides for the incorporation of environmental considerations in decision-making. It applies alongside the State's responsibility to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution, together with the basic needs of categories of persons disadvantaged by unfair discrimination. Although the current application is undertaken under the MPRDA, the principles of NEMA were still considered in the compilation of this EMP.

The above acts and other selected acts listed below are the pieces of legislation that govern the legal requirements for the proposed project, the application processes to be followed and stipulate where exploration activities may or may not occur.

2.2.2 Mineral and Petroleum Resources Development Act (MPRDA), 2002

In terms of the MPRDA, a Reconnaissance Permit must be obtained prior to the commencement of any reconnaissance activities. A requirement for obtaining a Reconnaissance Permit is that an applicant must submit an application in terms of Section 74(1) of the MPRDA to the designated agency, and they must accept the application within 14 days if, *inter alia*, no other person holds a Technical Co-operation Permit, Exploration Right or Production Right for petroleum over any part of the proposed permit area. If the application for a Reconnaissance Permit is accepted, the designated agency must request that the applicant comply with Chapter 5 of National Environmental Management Act, 1998 (No. 107 of 1998), as amended (NEMA) with regards to consultation and reporting.

It should be noted that there is no legislated process prescribing the environmental approval procedure to be followed in order to obtain a Reconnaissance Permit. Thus, the procedure followed in this EMP process is based on PASA's acceptance of the Reconnaissance Permit application and as noted above they requested that a '*plan be developed for managing potential environmental impacts that may result from the proposed operation and that affected parties are notified and consulted*'.

2.2.3 National Environmental Management Act (NEMA), 1998

Chapter 2 of NEMA sets out a range of environmental and social principles that are to be applied by all organs of state when taking decisions that significantly affect the environment. Included amongst the key principles is that all development must be socially, economically and environmentally sustainable. It requires that environmental management must place people and their needs at the forefront of its concern, and must serve their physical, psychological, developmental, cultural and social interests equitably. NEMA also provides for the participation of I&APs and stipulates that decisions must take into account the interests, needs and values of all of them.

As noted in Section 1.1, at the time the Reconnaissance Permit Application was submitted to PASA in 2020, there was no legislated process in NEMA or the EIA Regulations 2014 (as amended) prescribing the environmental approval procedure to be followed in order to obtain a Reconnaissance Permit. Thus, the procedure followed in this EMP process is based on PASA's acceptance of the Reconnaissance Permit application and as previously noted it was requested that Spectrum '*develop a plan for managing potential environmental impacts that may result from the proposed operations and notify and consult with affected parties*'.

Subsequent to PASA's acceptance of the Reconnaissance Permit Application, DFFE published amendments to the EIA Regulations 2014 in GN No. 517 (2021), which now includes *any activities (excluding any desktop study and any aerial survey) requiring a reconnaissance permit in terms of Section 74 of the MPRDA* as a listed activity (Activity 21B) in Listing Notice 1. Thus, an application for a Reconnaissance Permit now also requires an application for Environmental Authorisation and the undertaking of a Basic Assessment. However, GN No. 517 makes provision for transitional arrangements in order to accommodate applications submitted in terms of the previous Regulations and which are pending when the amendments took effect. Such applications must be dispensed with in terms of the previous Regulations that were in place at the time of application submission.

Nevertheless, this EMP fulfils the requirements of a Basic Assessment Report, as specified in Appendix 1 of the EIA Regulations 2014 (as amended).

In line with the principles of sustainable development in NEMA, the applicant is also responsible for acting with due care so that damage to others and the environment through its actions is avoided.

Various guideline documents for undertaking NEMA regulatory processes have been published by DFFE. Although the EMP process as required by PASA is not a NEMA regulated process, the below guidelines were still consulted during the current EMP process.

Table 2-1: Guidelines relevant to the EMP process

Guideline	Governing body	Applicability
Specialist Studies, Integrated Environmental Management, Information Series 4 (2002)	DFFE	This guideline was consulted to ensure adequate development of terms of reference for specialist studies.
Impact significance, Integrated Environmental Management, Information Series 5 (2002)	DFFE	This guideline was consulted to inform the assessment of significance of impacts of the proposed project.
Cumulative Effects Assessment, Integrated Environmental Management, Information Series 7 (2004)	DFFE	This guideline was consulted to inform the consideration of potential cumulative effects of the proposed project.
Environmental Management Plans, Integrated Environmental Management, Information Series 12 (2004)	DFFE	This guideline was consulted to ensure that the EMP and its related Action Plan and Procedures are adequately compiled.
Environmental Impact Reporting, Integrated Environmental Management, Information Series 15 (2004)	DFFE	This guideline was consulted to inform the approach to impact reporting.
Public Participation guideline in terms of NEMA (2017)	DFFE	The purpose of this guideline is to ensure that an adequate public participation process is undertaken during the EMP process.

2.2.4 National Environmental Management: Air Quality Act (NEM: AQA), 2004

The National Environmental Management: Air Quality Act, 2004 (No. 39 of 2004), as amended, regulates all aspects of air quality, including prevention of pollution, providing for national norms and standards. It includes a requirement for an Atmospheric Emissions Licence (AEL) for listed activities which result in atmospheric emissions and have or may have a significant detrimental effect on the environment.

Activities that require an AEL are listed in GN No. 893 (22 November 2013), published in terms of Section 21(1)(b) of the NEM: AQA. In terms of Section 22 of NEM: AQA no person may conduct a listed activity without an AEL. The incineration of waste is a listed activity (Category 8.1 – Thermal treatment of Hazardous and General Waste) and requires an AEL for all installations treating 10 kg or more of waste per day.

In terms of Section 36(5)(e) of the Act, the Minister of Mineral Resources must perform the functions of the licensing authority where the listed activity relates to exploration activities, as contemplated in the MPRDA.

DFFE: Air Quality Management Services has previously confirmed that this category would apply to an offshore installation. It, however, remains unclear in the legislation whether vessels are considered to be 'installations'.

On-board incineration of waste is permitted in terms of the International Convention for the Prevention of Pollution from Ships, 1973/1978 (MARPOL), to which South Africa is a signatory. Apart from the possible requirement for an AEL, Spectrum would thus also need to comply with the relevant MARPOL specifications for incineration at sea.

NEMA:AQA also provides for the monitoring and reporting of greenhouse gas emissions. The National Greenhouse Gas Emission Reporting Regulations (GN No. 275) was published in terms of Section 53 (a), (aA), (o) and (p) of NEM:AQA on 3 April 2017. The purpose of these Regulations is to implement a single national reporting system for the transparent reporting of greenhouse gas emissions. For oil and gas exploration activities no specific thresholds have been set, which by default means that the Regulations require that carbon dioxide (CO₂) and methane (CH₄) levels be reported on annually via the South African Greenhouse Gas Emissions Reporting System (SAGERS). Spectrum would need to meet this requirement for seismic, support vessel and helicopter operations.

2.2.5 National Environmental Management: Waste Act (NEM:WA), 2008

The National Environmental Management: Waste Act, 2008 (No. 59 of 2008), as amended, regulates all aspects of waste management and has an emphasis on waste avoidance and minimisation. NEM: WA creates a system for listing and licensing waste management activities. Listed waste management activities above certain thresholds are subject to a process of impact assessment and licensing. Activities listed in Category A require a Basic Assessment, while activities listed in Category B require a Scoping and EIA process.

The DFFE (previously the Department of Environmental Affairs) has indicated that NEM: WA is not applicable to offshore activities. Thus, a Waste Management Licence would not be required for offshore waste management activities. These aspects would be managed in terms of and would need to comply with the requirements of MARPOL 73/78.

2.2.6 National Environmental Management: Protected Areas Act (NEM:PAA), 2003

The National Environmental Management: Protected Areas Act, 2003 (No. 57 of 2003), as amended, provides for the declaration and management of protected areas, and the promotion of sustainable utilisation of protected areas for the benefit of people in a manner that would preserve the ecological character of such areas.

A number of new Marine Protected Areas (MPA) were proclaimed in terms of NEM: PAA for the South African offshore in May 2019, five of which overlaps with the proposed survey area (see Section **Error! Reference source not found.**). For oil and gas exploration activities, although vessels are permitted to sail through these areas, no firing of airguns or well drilling is permitted in any proclaimed MPAs. However, this does not exclude vessels (including seismic survey vessels) sailing through these areas. The proposed seismic activities must thus exclude any data acquisition in MPAs.

2.2.7 Other South African Laws and Policies Relevant to Oil and Gas Exploration

Other South African legislation that Spectrum may need to comply with, should the EMP be approved for the undertaking of a seismic survey in the Orange Basin, are summarised in Table 2-2.

Table 2-2: Other applicable South African legislation

No.	Title	Description
1	Carriage of Goods by Sea Act, 1986 (No. 1 of 1986) (COGSA)	This Act provides for the carriage of goods by sea and applies where: (a) the port of shipment is a port in South Africa; (2) the bill of lading is issued in a state which applies the Hague-Visby Rules; (3) the carriage is from a port in a contracting state; and (4) the contract contained in or evidenced by the bill of lading provides that the South African COGSA applies.
2	Hazardous Substances Act, 1983 and Regulations (No. 85 of 1983)	This Act provides for the control of substances which may cause injury or ill-health to or death of human. No person may, without a licence: (1) sell any Group I Hazardous Substance; (2) use, operate or apply any Group III Hazardous Substance (listed electronic products); and (3) install or keep any Group III Hazardous Substance. Authorisation is required to be in possession of, use or dispose of any Group IV Hazardous Substance (which includes radioactive material).
3	Human Rights Commission Act of 2013 (No. 14 of 2013)	This Act establishes a legal commission to monitor - pro-actively and by way of complaints brought before it - violations of human rights and redress for such violations.
4	Marine Living Resources Act, 1998 (No. 18 of 1998)	This Act provides for the conservation of marine ecosystems, the long-term sustainable utilisation of marine living resources and the orderly access to exploitation, utilisation and protection of certain marine living resources.
5	Marine Pollution (Control and Civil Liability) Act, 1981 (No. 6 of 1981)	The purpose of this Act is to provide protection of the marine environment from pollution by oil and other harmful substances, by giving power to SAMSA to take steps to prevent harmful substances being discharged from vessels. It is the responsibility of Spectrum to disclose to SAMSA before the commencement of proposed activities the amounts and types of chemicals that would be used and disposed of during operations.
6	Marine Pollution (Prevention of Pollution from Ships) Act, 1986 (No. 2 of 1986)	This Act regulates pollution from ships, tankers and offshore installations, and for that purpose gives effect to MARPOL 73/78. In terms of the Act, it is an offence to discharge any oil from a ship, tanker or offshore installation within 12 miles (19 km) off the South African coast. The discharge of oily water or oil and any other substance which contains more than a hundred parts per million of oil is prohibited between 19 – 80 km offshore.
7	Marine Pollution (Intervention) Act, 1987 (No. 65 of 1987)	This Act gives effect to the international convention relating to the Intervention of the High Seas in cases of oil pollution casualties, and to the Protocol relating to Intervention of the High Seas in cases of Marine Pollution by substances other than Oil in South African Waters.
7	Marine Traffic Act, 1981 (No. 2 of 1981)	This Act regulates marine traffic in South Africa's territorial waters. It regulates the entry and dropping of anchor within 500 m safety zone of installations.
9	Maritime Safety Authority Act, 1998 (No. 5 of 1998)	This Act provides for the establishment and functions of SAMSA. The objectives of the Act are to, <i>inter alia</i> : (1) ensure safety of life and property at sea; (2) prevent and combat pollution of the marine environment by ship; and (3) promote South Africa's maritime interests.
10	Maritime Safety Authority Levies Act, 1998 (No. 6 of 1998)	This Act provides for the imposition of levies by SAMSA. SAMSA is permitted to raise and collect a levy on all vessels calling at South African ports and operating in South African waters.
11	Maritime Zones Act 1994 (No. 15 of 1994)	The Act defines the maritime zones, including territorial waters, contiguous zone, exclusive economic zone and continental shelf.
12	Merchant Shipping Act, 1951 (No. 57 of 1951)	This Act provides for the control of merchant shipping and matters incidental thereto.
13	Mine Health and Safety Act, 1996 (No. 29 of 1996)	This Act provides for health and safety requirements for mining operations and includes hazard and risk assessments, monitoring and awareness training.
14	National Environmental Management: Biodiversity Act, 2004 (No. 10 of 2004)	This Act regulates the carrying out of restricted activities that may harm listed threatened or protected species or activities that encourage the spread of alien or invasive species subject to a permit.

No.	Title	Description
15	National Environmental Management: Integrated Coastal Management Act, 2008 (No. 24 of 2008)	This Act supports the authorisation requirements of NEMA but specifies additional criteria for regulating activities or developments (Section 63) and provides for pollution control within the coastal zone (Sections 69 to 73), where the coastal zone includes the Exclusive Economic Zone defined in the Maritime Zone Act (refer to line 11 above).
16	National Heritage Resources Act, 1999 (No. 25 of 1999) (NHRA)	This Act provides for the protection of South Africa's natural heritage, including wrecks or associated debris or artefacts that may be found or disturbed on the seabed. According to Section 35 of the NHRA, any person who discovers archaeological objects or material (including wrecks) in the course of a development must immediately report the find to the South African Heritage Resources Agency (SAHRA). No person may, without a permit issued by SAHRA, destroy, damage, excavate, alter, deface or otherwise disturb any archaeological site. In the event that a shipwreck is discovered during exploration activities SAHRA would need to be notified.
17	National Ports Act, 2005 (No. 12 of 2005)	This Act regulates and controls navigation within port limits and the approaches to ports, cargo handling, and the pollution and the protection of the environment within the port limits. The Act specifies a requirement for an agreement with or a license from the National Ports Authority to operate a port facility or service.
18	National Water Act, 1998 (No. 36 of 1998)	This Act provides the legal framework for the effective and sustainable management of water resources in South Africa. It serves to protect, use, develop, conserve, manage and control water resources as a whole, promoting the integrated management of water resources with the participation of all stakeholders.
19	Occupational Health and Safety Act, 1993 (No. 85 of 1993) and Major Hazard Installation Regulations	This Act provides for the health and safety of persons at work and the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work. Every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of his employees.
20	Sea Birds and Seals Protection Act, 1973 (No. 46 of 1973)	This Act provides for the control over certain islands and the protection of seabirds and seals. It is an offence to wilfully disturb seabirds and seals on the coast or on offshore islands, unless in possession of a permit.
21	Ship Registration Act, 1998 (No. 58 of 1998)	This Act provides for the registration of ships in South Africa.
22	Wreck and Salvage Act, 1995 (No. 94 of 1995)	This Act regulates the law of salvage in South Africa and provides for the application in South Africa of the International Convention of Salvage, 1989.

2.3 INTERNATIONAL REGULATIONS, CONVENTIONS AND BEST PRACTICE

Relevant international conventions and treaties which have been ratified by the South African Government and which have become law through promulgation of national legislation are listed in Table 2-3.

Table 2-3: Ratified international conventions and treaties

No.	Title	Description
International Marine Pollution Conventions		
1	Convention of the International Maritime Organisation (IMO), 1948	This Convention deals with the establishment of the IMO. The IMO is a specialist United Nations agency dealing with maritime issues, including development of all the marine pollution control conventions.
2	International Convention for the Prevention of Pollution from Ships, 1973/1978 (MARPOL)	MARPOL 73/78 was developed by the International Maritime Organization with an objective to minimise pollution of the oceans and seas, including dumping, oil and air pollution. MARPOL is divided into Annexes according to various categories of pollutants, each of which deals with the regulation of a particular group of ship emissions.

No.	Title	Description
		<ul style="list-style-type: none"> Annex I: Prevention of pollution by oil and oily water Annex II: Control of pollution by noxious liquid substances in bulk Annex III: Prevention of pollution by harmful substances carried by sea in packaged form Annex IV: Pollution by sewage from ships Annex V: Pollution by garbage from ships Annex VI: Prevention of air pollution from ships <p>All ships flagged under countries that are signatories to MARPOL are subject to its requirements, regardless of where they sail and member nations are responsible for vessels registered on their national ship registry.</p>
3	International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC Convention)	OPRC is an international maritime convention establishing measures for dealing with marine oil pollution incidents nationally and in co-operation with other countries.
4	United Nations Convention on Law of the Sea, 1982 (UNCLOS)	UNCLOS defines the rights and responsibilities of nations with respect to their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources.
5	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (the London Convention) and the 1996 Protocol (the Protocol)	The London Convention is an agreement to control pollution of the sea from dumping and to encourage regional agreements supplementary to the Convention. It covers the deliberate disposal at sea of wastes or other matter from vessels, aircraft and platforms. It does not cover discharges from land-based sources, such as pipes and outfalls, wastes generated incidental to normal operation of vessels, or placement of materials for purposes other than mere disposal, providing such disposal is not contrary to aims of the Convention.
6	International Convention relating to Intervention on the High Seas in case of Oil Pollution Casualties (1969) and Protocol on the Intervention on the High Seas in Cases of Marine Pollution by substances other than oil, 1973	This Convention is an international maritime convention affirming the right of a coastal State to "take such measures on the high seas as may be necessary to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat of pollution of the sea by oil, following upon a maritime casualty or acts related to such a casualty".
7	International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (in force from 2017) (BWM)	This Convention aims to prevent the spread of harmful aquatic organisms from one region to another, by establishing standards and procedures for the management and control of ships' ballast water and sediments.
8	Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal, 1989	This Convention is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries. It does not, however, address the movement of radioactive waste.
9	International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001	The Convention prohibits the use of harmful compounds in anti-fouling paints used on ships and rigs and establishes a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems.
Air and Atmosphere		
10	Kyoto Protocol on the Framework Convention on Climate Change, 1997	This Protocol was the key instrument on which the 1992 United National Framework Convention on Climate Change is based. It is the first legally binding global agreement setting out specific obligations for the reduction of the amount of GHG.
11	Montreal Protocol on Substances that Deplete the Ozone Layer, 1987	This Protocol lays down a timetable for the reduction of controlled substances that deplete the ozone layer and have adverse effects on health and the environment.
12	Vienna Convention for the Protection of the Ozone Layer, 1985	The Convention is the first global agreement that recognised that the ozone was a serious enough problem to warrant international regulation.

No.	Title	Description
13	United Nations Framework Convention on Climate Change, 1992	The objective of the Convention is to "stabilise GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".
14	Paris Agreement (United Nations Framework Convention on Climate Change - UNFCCC), 2016	South Africa signed the Paris Agreement on 22 April 2016. This Agreement aims to strengthen the global response to the threat of climate change by limiting the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase even further to 1.5°C. Parties aim to reach global peaking of GHG emissions as soon as possible, recognising that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of GHG in the second half of this century.
Flora, Fauna and Protected Areas		
15	Revised African Convention for the Conservation of Nature and Natural Resources (2017)	The objectives of this Convention are to enhance environmental protection, to foster the conservation and sustainable use of natural resources, and to harmonise and coordinate policies in these fields.
16	United Nations Convention on Biological Diversity, 1992	This Convention has three main goals: (1) conservation of biological diversity (or biodiversity); (2) sustainable use of its components; and (3) fair and equitable sharing of benefits arising from genetic resources. Its objective is to develop national strategies for the conservation and sustainable use of biological diversity.
17	Convention on the Conservation of Migratory Species of Wild Animals, 1983 (Bonn Convention)	This Convention aims to conserve terrestrial, marine and avian migratory species throughout their range.
18	Memorandum of Understanding (MoU) on the Conservation of Migratory Sharks, 2010	The MOU was founded under the auspices of the Bonn Convention and serves as an international instrument for the conservation of migratory shark species, including species occurring off the West Coast of South Africa.
19	The MoU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia, 2001	The MoU is an intergovernmental agreement that aims to protect, conserve, replenish and recover sea turtles and their habitats in the Indian Ocean and South-East Asian region.
20	Agreement on the Conservation of Albatrosses and Petrels, 2004 (ACAP)	The Agreement protects all the world's albatross species, seven southern hemisphere petrel and two shearwater species. A number of these occur off the West Coast of South Africa.
21	International Convention for the Conservation of Atlantic Tunas (ICCAT)	This Convention provides for the management and conservation of tuna and tuna-like species in the Atlantic Ocean and adjacent seas.
22	Convention on International Trade of Wild Fauna and Flora Endangered Species, 1973 (CITES)	CITES is a multilateral treaty to protect endangered plants and animals.
Archaeology and Cultural Heritage		
23	Convention concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972)	This Convention provides for the identification, protection and conservation of the cultural and natural heritage for future generations.
24	United Nations Educational, Scientific and Cultural Organization (UNESCO) Convention on the Protection of the Underwater Cultural Heritage, 2001	This Convention is intended to protect all traces of human existence having a cultural, historical or archaeological character, which have been under water for over 100 years. This extends to the protection of shipwrecks, sunken cities, prehistoric art work, treasures that may be looted, sacrificial and burial sites, and old ports that cover the oceans' floors.

No.	Title	Description
Marine Safety		
25	Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS)	This Convention sets an international standard for shipping and navigation. It deals with safety at sea issues and prescribes international standards for shipping, particularly to reduce the risk of collisions at sea. The rules for the prevention of collisions at sea apply to all vessels using the high seas.
26	International Convention for the Safety of Life at Sea, 1974 (SOLAS) with its protocol of 1978	This Convention is an international maritime treaty which requires signatory flag states to ensure that ships flagged by them comply with minimum safety standards in construction, equipment and operation.
27	The International Convention on Load Lines, 1966 and its protocol of 1988	This Protocol was adopted to harmonise the survey and certification requirement of the 1966 Convention with those contained in SOLAS and MARPOL 73/78. All assigned load lines must be marked amidships on each side of the ships engaged in international voyages.
Fishing		
28	Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993	This Agreement promotes compliance with international conservation and management measures by fishing vessels on the high seas.
29	Convention on the Conservation and Management of Fishery Resources in the South-East Atlantic Ocean, 2001	This Convention provides for the long-term conservation and sustainable use of the fishery resources in the South East Atlantic Ocean.
Human Rights and Labour		
30	International Labour Organisation Conventions	<p>C029 - Forced Labour Convention, 1930 (No. 29) -05 Mar 1997</p> <p>C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)</p> <p>C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)</p> <p>C100 - Equal Remuneration Convention, 1951 (No. 100)</p> <p>C105 - Abolition of Forced Labour Convention, 1957 (No. 105)</p> <p>C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)</p> <p>C138 - Minimum Age Convention, 1973 (No. 138)</p> <p>C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)</p> <p>C081 - Labour Inspection Convention, 1947 (No. 81)</p> <p>C144 - Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144)</p> <p>C002 - Unemployment Convention, 1919 (No. 2)</p> <p>C004 - Night Work (Women) Convention, 1919 (No. 4)</p> <p>C019 - Equality of Treatment (Accident Compensation) Convention, 1925 (No. 19)</p> <p>C026 - Minimum Wage-Fixing Machinery Convention, 1928 (No. 26)</p> <p>C027 - Marking of Weight (Packages Transported by Vessels) Convention, 1929 (No. 27)</p> <p>C041 - Night Work (Women) Convention (Revised), 1934 (No. 41)</p> <p>C042 - Workmen's Compensation (Occupational Diseases) Convention (Revised), 1934 (No. 42)</p> <p>C045 - Underground Work (Women) Convention, 1935 (No. 45)</p> <p>C063 - Convention concerning Statistics of Wages and Hours of Work, 1938 (No. 63)</p> <p>C080 - Final Articles Revision Convention, 1946 (No. 80)</p> <p>C089 - Night Work (Women) Convention (Revised), 1948 (No. 89)</p> <p>C116 - Final Articles Revision Convention, 1961 (No. 116)</p> <p>C155 - Occupational Safety and Health Convention, 1981 (No. 155)</p> <p>C176 - Safety and Health in Mines Convention, 1995 (No. 176)</p>

No.	Title	Description
		MLC 2006 - Maritime Labour Convention, 2006 (MLC 2006) C188 - Work in Fishing Convention, 2007 (No. 188) C189 - Domestic Workers Convention, 2011 (No. 189)

2.4 SPECTRUM ENVIRONMENTAL POLICY STATEMENT

Spectrum is a full subsidiary of TGS and is thus bound by its environmental policy. TGS believes that conducting its operations in a sustainable manner is not only essential to its success, but also to the prosperity of its customers, shareholders and the communities in which it is based and operates. As part of this approach TGS and its subsidiaries (including Spectrum) implement an environmental policy. In terms of this policy, TGS is committed to protecting the environment while also conducting its operations in an environmentally sustainable and responsible manner. TGS strives to lead the industry in minimising the impact of its operations on the environment and is dedicated to the continuous improvement of its environmental programmes and standards across all its operations (<https://www.tgs.com/about-us/corporate-social-responsibly/environmental-policy/>).

TGS/Spectrum will work to achieve the above commitments by:

- Planning its operations to minimize and/or reduce environmental impacts to acceptable levels;
- Monitoring its performance against approved environmental management plans;
- Carrying out regular environmental audits, inspections and site visits of its own and contractor operations;
- Maintaining compliance with applicable laws, regulations and guidance from trade associations;
- Monitoring the environmental performance of its contractors throughout the life cycle of each project;
- Ensuring that its contractors restore, in a reasonable and practical manner, all project sites to their original condition;
- Educating its employees and contractors in TGS' environmental stewardship and sustainability strategies;
- Communicating TGS' environmental expectations to all employees and contractors;
- Seeking continuous improvement and environmentally sustainable solutions;
- Annually reviewing the environmental policy and related plans to ensure ongoing suitability and effectiveness;
- Providing appropriate financial and physical resources to enable compliance;
- Publishing its environmental performance in the annual TGS Corporate Social Responsibility report.

TGS/Spectrum's environmental efforts will be based on the implementation of the following key global strategies:

- Conducting environmental risk assessments of its operations and assessing its impact on the environment;
- Minimization and reduction of waste generated by design and purchase;
- Adoption of reduce, re-use and recycle programs where efficiencies can be found;
- Where hazardous chemicals, materials or products are used, adopt substitution techniques aimed at reducing or eliminating the handling, use and storage of such items;
- Minimization of carbon emissions by survey design and minimization of technical and non-technical downtime;

- Guarding against accidental and operational pollution;
- Development of emergency response plans for environmental incidents;
- Committing to implementing UN Global Compact Sustainable Development Goals.