

# **Environmental and Social Impact Assessment for the Staatsolie River Seismic Project**

## **Regulatory Framework**

**Prepared for**

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**on behalf of:**

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**March 2012**

## **Table of Contents**

1. Introduction.....	1
2. National Environmental, Health and Safety legal framework .....	2
2.1 General .....	2
2.2 Relevant laws and regulations.....	2
3. International conventions.....	14
4. Corporate environmental policies and standards of Staatsolie .....	16
5. Institutional Framework.....	17
6. Summary .....	21

## 1. Introduction

This section includes a description of Staatsolie's policies, principles and guidelines plus a review of the applicable regulations, standards, and regulatory bodies governing environmental quality, health and safety, protection of natural and cultural resources, protected areas.

Suriname's environmental regulatory regime is not yet fully developed and there is no legislation dealing specifically with environmental management. But environmental legislation is currently being developed and draft generic guidelines for environmental and social assessment have been released (NIMOS 2005 and 2009). Legislation regarding environmental and natural resource management is found dispersed between different pieces of legislation

The proposed River Seismic Project and ESIA process will comply with the draft regulations and other relevant existing legislation.

Responsibility for the management of the environment and natural resources resides within different government institutions.

The legal and regulatory framework for environmental impact assessments in Suriname is governed by the Nationaal Instituut voor Milieu en Ontwikkeling in Suriname (NIMOS). The 2002 draft Environmental Act, currently under review by the Council of Ministers, includes Environmental Assessment Guidelines that will be complied with for the ESIA process.

The project and ESIA process will also be consistent with relevant international requirements, including international treaties and conventions to which Suriname is a signatory.

In addition to national regulatory requirements of Suriname, the ESIA will be guided by environmental assessment standards and guidelines of the World Bank Group and the PESIA will be undertaken in a manner consistent with the International Finance Corporation's Environmental and Social Review Procedure.

Staatsolie also has corporate standards and management policies that are relevant to the project and the EIA process, notably its Health, Safety and Environment (HSE) Policy.

The key regulatory requirements pertaining to the proposed River Seismic project and the environmental assessment thereof include the following:

- Suriname legislation, regulations and guidelines.
- International treaties and conventions
- Corporate environmental policies and standards of Staatsolie.
- International best practice standards, such as the guidelines of the World Bank Group.

## 2. National Environmental, Health and Safety legal framework

### 2.1 General

Suriname's legislation at the national level is exercised through different legislative instruments.

The judicial hierarchy can be distinguished in the following order<sup>1</sup>:

<b>International Treaties (Verdragen)</b>	The approval of international treaties should be authorized and if required, approved by the President of the Republic of Suriname. The provisions of the international treaties, which may be directly binding on anyone, shall become effective upon promulgation. Legal Regulations in force in the Republic of Suriname shall not apply if such application should be incompatible with provisions of agreements which are directly binding on anyone and which were concluded either before or after the enactment of the regulations.
<b>Constitution of the Republic of Suriname (Grondwet)</b>	Highest national law providing for rules regarding the sovereignty, principles for freedom, equity and democracy.
<b>Act of Parliament/Law (Wet, Landsverordening, Decreet)<sup>2</sup></b>	Jointly realized by Government and Parliament. However, some of the primary legislation in force is in the form of decrees, since they date from the period of Military rule
<b>State order (Staatsbesluit, Landsbesluit)</b>	A Government Order containing general binding rules, to implement an act or to regulate a subject not reserved to be regulated by an Act.
<b>Presidential Order (Presidentieel Besluit)</b>	A decision by the President as executive Head of State by virtue of the Constitution.
<b>Presidential Resolution (Presidentiële Resolutie)</b>	A decision by the President by virtue of a law.
<b>Ministerial Order (Ministeriële Beschikking)</b>	A decision by a Minister, in the execution of a Ministerial task.
<b>District Ordinances (Districtsverordeningen)</b>	Limited legislative power given by the Constitution to the District Council to regulate their district, in accordance with their task description.

### 2.2 Relevant laws and regulations

The table below gives an overview of the Environmental Management System, laws and regulations that are identified to be relevant for the project.

<sup>1</sup> Mr. W. Bechan-Pherai, Inleiding tot het Surinaams Staatsrecht, march 2006.

<sup>2</sup>Landsverordening: an act/law approved during Colonial period, before 1975;

Law/act: approved after 1975;

Decreet: approved in the period of Military rule, 1980-1986.

**ENVIRONMENT**

**MINERAL RESOURCES**

Title	Objective	Relevant provisions	Findings
<p><b>THE CONSTITUTION OF SURINAME</b>  <i>(Grondwet van de Republiek Suriname)</i>                      S.B. 1987 no.116 last amended by S.B. 1992 no.38.</p>	<p>Provide rules for the sovereignty, principles for freedom, equity and democracy.</p>	<p>Article 41: Natural wealth and resources are property of the nation and need to be devoted to economic, social, and cultural development. The nation has the inalienable right to fully take possession of the natural resources as to use these for the benefit of economic, social, and cultural development of Suriname.</p>	
<p><b>MINING ACT</b>  <i>(Decreet Mijnbouw)</i>                      S.B. 1986 no. 28, as most recently amended by S.B. 1997 no. 44</p>	<p>Governs the exploration and exploitation of all mineral resources</p>	<p>Article 2: all raw material in and above the ground, including the territorial sea are property of the State.</p> <p>Article 4, sub. 1: “during the mining operation all mining activities should be carried out ... applying the most modern international techniques ...professionally making use of advanced technology and appropriate materials taking into account current requirements regarding safety and health... including requirements to protect the ecosystems”.</p> <p>Article 16, sub 1: “after closure of the mining concession the holder of the right will, to the satisfaction of the Minister (of Natural Resources) take all necessary measures in the interest of public safety, the conservation of the deposit, the rehabilitation of the land concerned and the protection of the environment”.</p> <p>Article 30 sub 2: “the application for a mining concession should be accompanied by a Plan of Operations for the rehabilitation of mined out land”. This article is also covered by the Petroleum Act, Article 7 sub 2 (see below).</p>	<p>According to article 2 of the Petroleum Act, the Mining Act is still applicable to petroleum activities as long as it is not contrary to a rule in the Petroleum Act.</p>

<p><b>PETROLEUM ACT</b> <i>(Petroleum wet 1990)</i></p> <p>S.B. 1991 no. 7, as most recently amended by S.B. 2001 no. 58</p>		<p>Article 6 e, states; that the petroleum activities should be carried out in such a way, that negative impacts on the environment and natural resources are prevented</p> <p>Article 7, sub 1, states: “for the performance of petroleum activities, due account should be given to the prevailing legal regulations, to build, establish, maintain and use all facilities that are necessary or advantageous for the proper performance of the petroleum activities”. This suggests, that due account should be given to all the existing regulations dealing with the environmental aspects of building, establishment and maintenance of all such facilities.</p> <p>Article 7, sub 2, states: “upon termination of the petroleum activities on state land the land should return to its original condition insofar as reasonably possible”.</p>	<p>According to article 28, sub c, further rules regarding conservation of petroleum, prevention of spilling and protection of the fisheries, shipping and other activities shall be laid down by means of a State Order. However this State Order still does not exist.</p>
<p><b>ACT REGARDING THE AUTHORIZATION OF STAATSOLIEMAATSCHAPPIJ N.V. TO DO RESEARCH AND EXPLOITATION OF HYDROCARBONS</b></p> <p><i>(Decreet van 11 mei 1981, houdende machtiging tot verlening aan Staatsolie maatschappij Suriname NV van een vergunning tot het doen van onderzoek naar en van een concessie voor de ontginning van koolwaterstof voorkomens)</i></p> <p>S.B. 1981 no. 59</p>		<p>Article 7: the State Oil company is obliged to report to the State complete and accurate records which shall include:</p> <ul style="list-style-type: none"> <li>• specifications on recoverable petroleum and other discovered mineral(s);</li> <li>• raw data obtained from geological, geochemical and geophysical survey</li> </ul> <p>Article 9: All operations shall be carried out according most modern international techniques and methods in general accustomed to in the oil industry and in accordance with “good oilfield practice”; the company is responsible for a safe discharge of water and waste oil</p> <p>Article 13: Right holders and third parties are obliged to permit in and on the land, within the concession area, the search and extraction of hydrocarbons by the concession holder if they are notified on time and previously assured compensation</p>	<p>One of Staatsolie's goals is to add 64 MMBBL crude oil to their reserves in the period 2008-2012. To achieve this, Staatsolie will conduct seismic exploration activities in the near shore and onshore blocks of 5 rivers namely Commewijne, Suriname, Saramacca, Coppename and Corantijn.</p> <p>According to article 7 the Staatsolie Maatschappij N.V. needs to report to the Ministry of Natural Resources the results of the seismic exploration activities.</p>

**LAND MANAGEMENT**

<p><b>DECREE L2: DECREE ISSUANCE DOMAIN LAND</b> <i>(Decreet uitgifte domeingrond)</i> S.B. 1982 no. 11</p>	<p>Regulates the issuance of domain land.</p>	<p>Article 1: all land to which others have not proven their right of ownership is domain of the State.</p> <p>Article 7: a request for domain land can be refused if the allocated land is contrary to regional development plans or zoning plans.</p>	<p>Possibilities to establish Multiple-Use Management Areas (MUMA's) were created by the L-2 Decree.</p>
<p><b>MINISTERIAL ORDER FROM 30 DECEMBER 1987, TO DESIGNATE BIGI PAN AS MULTIPLE-USE MANAGEMENT AREA.</b> <i>(Ministeriële beschikking van 30 december 1987, om Bigi Pan te bestemmen als bijzonder beheersgebied)</i> S.B. 2002 no. 94</p>	<p>Designate Bigi Pan as MUMA.</p>	<p>Article 1: The MUMA is designated between the Coppename River and the canal of Burnside. This coast strip is important:</p> <ul style="list-style-type: none"> <li>• because it is a breeding and feeding area for specified fish;</li> <li>• as spawning and nursery ground for the marine fauna;</li> <li>• it also serves as an important feeding ground for migratory shorebirds .</li> <li>• because the ecosystems and their biodiversity offer a range of eco-tourist activities that should be further developed;</li> <li>• because these ecosystems add value to the near shore small-scale and offshore industrial fisheries.</li> </ul> <p>Article 2: this area needs to be protected because of reclamation of this area and pollution of the water by pesticides.</p>	<p>In December 1987 a 684 km<sup>2</sup> of coastal state-property land along the Nickerie and Western Coronie coast was placed under the Ministry of Natural Resources (currently exercised by the Ministry of RGB) to manage this area as a MUMA<sup>3</sup>. The Suriname forest service (LBB) was appointed as the management authority of that MUMA, which became known as the Bigi Pan MUMA.</p> <p>This area consisting of fresh and brackish water ecosystems, has a high productivity and serves as feeding and breeding grounds for large numbers of local and migratory bird species. It is also nursery ground for fish and shrimp. It is noteworthy to mention that MUMAs in Suriname are considered an IUCN<sup>4</sup> category 6 sites<sup>5</sup>. (Baal, Natural Heritage in Suriname, 2005)</p> <p>The planned 2D river seismic lines will cross the Bigi Pan MUMA.</p>

<sup>3</sup>MUMA's officially cover only FREE DOMAINLAND; that means that domain land that is issued and has a certain title (on the land) is NOT a part of the MUMA. However, the four MUMA Management Plans cover the entire land area's (free domain land AND titled land) and the adjacent sea until the six-meter-depth line ( Baal 2005)

<sup>4</sup>IUCN – The World Conservation Union was founded in 1948 and brings together national governments, NGOs, and scientists in a worldwide partnership. Its mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

<sup>5</sup>Category VI protected areas conserve ecosystems and habitats, together with associated cultural values and traditional natural resource management systems. They are generally large, with most of the area in a natural condition, where a proportion is under sustainable natural resource management and where low-level non-industrial use of natural resources compatible with nature conservation is seen as one of the main aims of the area

<p><b>MINISTERIAL ORDER NORTH SARACACCA AS MULTIPLE-USE MANAGEMENT AREA</b></p> <p>(S.B. 2002 no. 88).</p>	<p>Designate North Saramacca as MUMA.</p>	<p>Article 1: The North Saramacca MUMA is bordered by the Coppename River in the west, and the boundary of the Saramacca District in the east. The area is bordered by the Wayambo Road, the Saramacca River and the Coppename Road. The reserve is important, because:</p> <ul style="list-style-type: none"> <li>• of the mangrove forest that protects the coast and river estuaries against erosion;</li> <li>• it is a breeding and feeding area for specified fish;</li> <li>• of the production of fish and shrimp for the export and local consumption.</li> <li>• it creates possibilities for apiculture and expansion of large scale animal husbandry and agriculture (Southern swamps that drain into the Saramacca river)</li> <li>• it also serves as an important feeding ground for migratory shorebirds ;</li> <li>• the ecosystems and their biodiversity offer a range of eco-touristic activities that should be further developed. These ecosystems add value to the near-shore small-scale and offshore industrial fisheries.because of the Mangrove forest that protects the coast and river estuaries against erosion;</li> </ul> <p>Article 2: this area needs to be protected because of the increasing threats such as disturbance of the water flow due to reclamation for oil extraction, agriculture( rice and animal husbandry), and pollution of the water by pesticides, organic waste and oil.</p>	<p>Economic developments became a serious threat to the coastal zone and the Forest Service was requested to design Integrated Coastal Zone Management (ICZM) Plans for the entire coast, including the North Saramacca area. The proposed Management Plan for North Saramacca recommends (among others) embedding of the Coppename-monding Nature Reserve in a MUMA. In 2001, the management plan for the North Saramacca MUMA was approved by the Nature Conservation Division of the Suriname Forest Service and in 2002, the Ministerial Resolution to establish the MUMA was published in the State Gazette (Staatsblad 2002, no 88). By this Resolution, all state-owned land of the North Saramacca area was placed at the disposal of the Minister of Natural Resources (currently RGB). Mandate was given to Nature Conservation Division (NB) of the Suriname Forest Service (LBB) to manage the area as a Special Management Area ("Bijzonder Beheersgebied"). Since the establishment of a new Ministry of Spatial Planning, Land and Forest Management (RGB) in 2005, the Forest Service resorts under this Ministry.</p> <p>The planned 2D river seismic lines will cross the North Saramacca MUMA.</p>
<p><b>MINISTERIAL ORDER TO DESIGNATE NORTH COMMEWIJNE / MAROWIJNE AS MUMA</b></p> <p>ARS. 2002 no. 94</p>	<p>Designate North Commewijne/ Marowijne as MUMA.</p>	<p>The North Commewijne/Marowijne MUMA is the Coastal belt between the Suriname and Marowijne river, in the north of the Commewijne and the Cottica rivers.</p> <p>The multiple use management area is important:</p> <ul style="list-style-type: none"> <li>• because of the mangrove forest that protects the coast and river estuaries against erosion;</li> <li>• as a breeding and feeding area for specified fish which have their larva stage in the brackish coastal waters;</li> <li>• because of the protection of sea turtles</li> </ul>	<p>The planned 2D river seismic lines will cross the sea section of this MUMA.</p>

		<ul style="list-style-type: none"> <li>• because it also serves as an important feeding ground for migratory shore birds;</li> <li>• because the ecosystems and their biodiversity offer a range of eco-touristic activities that should be further developed;</li> <li>• Because of the potentials for aqua culture, apiculture, animal husbandry and agriculture</li> </ul> <p>Protection of this area against increasing threats is essential because:</p> <ul style="list-style-type: none"> <li>• the mangrove cannot function optimal or die because of disturbance of the freshwater flow;</li> <li>• increased pollution of the rivers (and brackish creeks) by oil, industrial effluence, pesticides , organic waste and (potential) mercury that threatens the breeding and production function;</li> <li>• The disadvantage of pesticides and mercury for fish, shrimps, poultry and wild meat for the local consumption and export.</li> </ul>	
<p><b>MINISTERIAL ORDER “GUIDELINES FOR LAND ISSUANCE IN THE ESTUARINE MANAGEMENT AREAS” ( “Richtlijnen Gronduitgifte Estuariene Beheersgebieden”)</b></p> <p>S.B. 2005 no. 16</p>	<p>Guidelines for the issuance and the use of domain land in the Estuarine management area.</p>	<p>Article 4: requirements for the issuance of domain land in the estuarine management area:</p> <ul style="list-style-type: none"> <li>• a strip of 500 meters on both sides of the rivers and a stroke of 200 meters on both sides of creeks is reserved for protection forest or conversion forest;</li> <li>• it is prohibited to withdraw water from the estuarine swamps;</li> <li>• the discharge of waste water containing chemicals, pesticides is prohibited.</li> </ul>	<p>In February 2005 the Minister of Natural Resources (since 2005 the Minister of RGB) issued this Ministerial order to provide guidelines for the issuance and use of domain land within the estuarine zone. The considerations for setting the guidelines are to maintain the natural functions of the estuarine zones, such as coastal and shore protection function, hydrological function, and biological function, i.e. spawning and nursery area for fish, shrimp and birds. This ministerial order provides specific requirements for the use of domain land in the estuarine management areas.</p>

## NATURE PROTECTION

### NATURE PROTECTION ACT

*(Natuurbeschermingswet)*

G.B. 1954 no. 26 last amended by  
S.B. 1992 no. 80

Regulates the designation, protection and maintenance of our Nature Reserves.

Article 1: the President can designate Nature Reserves for the protection and maintenance of our natural resources.

Article 3: The general management and control over the nature reserves rest in the hands of the Head of the Suriname Forest Service, who gets advice from the Nature Preservation Commission. This Commission consists of at least 7 members. The Commission consist of the following members:

- 1° The Director of Agriculture;
- 2° The Head of the Suriname Forest Service;
- 3° The Entomologist of the Agricultural experimental station;
- 4° The Head of the Geological Mining Service.

The remaining members, from which at least one is a District Commissioner, are appointed and dismissed by the President. The President chooses the Chairman and the Secretary from among the members. As far as it is needed, a local manager is appointed for every nature reserve.

Article 5: It is prohibited to intentionally or due to negligence damage the condition of the soil, the natural beauty, the fauna, and the flora or to perform acts that may impair the value of the reserve as such. It is also prohibited to hunt and to fish and persons are also not allowed to have with them dogs, firearms, and any hunting or catching device, without the required license thereto.

Article 6: The head of LBB may grant a license to persons to undertake business in a not closed part of the nature reserve corresponding with their approved plan with explicit conditions that no damage or detriment whatsoever is done to the nature reserve.

Article 7: The Head of the Suriname Forest Service can give written permission to special persons corresponding to a plan approved by him to

Between 1961 and 1972 four nature reserves were established in the coastal and estuarine zone among which the Coppename-monding Nature Reserve. By state order (GB 1966no 59) the “bird sanctuary”, established in 1953 east of the Coppename River mouth, received the status of nature reserve and was named “Coppename-monding Nature Reserve”. The reserve has been established for the purpose of research, nature education and tourism.

The Coppename Monding Nature Reserve is considered IUCN category IV site<sup>6</sup>. It is also listed on the list of wetlands of international importance under the Ramsar Convention.

The most important coastal or estuarine ecosystems, known at that time, were represented in those reserves including sea turtle nesting beaches, nesting and feeding areas of coastal birds, feeding grounds for migratory birds and nursery grounds for shrimps and fishes. Currently Suriname has 11 approved nature reserves.

The planned 2D River Seismic project will take place near the Coppename-monding Nature Reserve.

<sup>6</sup>Category IV protected areas aim to protect particular species or habitats and management reflects this priority. Many category IV protected areas will need regular, active interventions to address the requirements of particular species or to maintain habitats, but this is not a requirement of the category.

		<p>carry out a business in an area of the nature reserve which is not closed off, or to co-operate with the establishment of a business concern, with explicit conditions that no damage or detriment whatsoever is done to the nature reserve by these people or their businesses.</p> <p>He/she can give a written license to certain persons under certain explicit conditions laid down by him in certain specific areas of the nature reserve to gather forest and forestry by-products, put cattle out to pasture, or to fish.</p>	
<p><b>GAME LAW</b> (G.B. 1954 no. 25 amended by S.B. 1997 no. 33).</p>	<p>Protection fauna and rules for hunting.</p>	<p>Article 2: it is prohibited to capture, kill, have, sell, buy, import, export or transport protected creatures.</p> <p>Article 4: It is also prohibited to destroy, take or sell eggs of protected birds.</p>	<p>The river seismic project will take place in the estuarine zones which is a breeding place for birds and fish.</p> <p>The Nature Conservation Division is responsible for the enforcement of the Game Law.</p>
<p><b>SEA FISHERIES ACT</b> (<i>Zeevisserij wet</i>)</p> <p>S.B. 1980 no. 114 amended by S.B. 2001 no. 120)</p>	<p>Provisions for the sea fisheries.</p>	<p>Article 6: the owner of a fisher boat shall register the vessel in the central fisheries registry.</p> <p>Article 14: a license is required for catching of fish</p> <p>Article 17: the Minister shall give notice of the general conditions under which the license will be given among which the type of dragnet to be used, the open season and areas, minimum and maximum size of catching fish etc.</p>	
<b>WASTE</b>			
<p><b>HARBORS DECREE</b> (<i>Decreet Havenwezen</i>)</p> <p>S.B. 1981 no. 86</p>	<p>Provide provisions for the harbor</p>	<p>Article 17: prohibits discharge of waste, oil, oil-contaminated water and condemned goods into public waters. It is also prohibited to pump oil, oil contained ballast and bilged water.</p>	

**RIVER MANAGEMENT**

<p><b>ACT MARITIME AUTHORITY SURINAME (MAS)</b></p> <p><i>(Wet Maritieme Autoriteit Suriname)</i></p> <p>S.B. 1998 no. 37</p>	<p>Rules for the establishment of the MAS</p>	<p>Article 3: one of the objectives of the MAS is the compliance of the legal requirements on the shipping and maritime traffic.</p> <p>The MAS is responsible for, among others:</p> <ul style="list-style-type: none"> <li>• Activities in the field of services to shipping in the broadest sense, in order to secure the export and import</li> <li>• Duties assigned to the MAS laid down by laws.</li> </ul>	<p>The MAS is the organization that supervises the compliance of legal rules in shipping. The MAS guarantees a safe and efficient passage of sea-going vessels from and to Suriname based on internationally accepted standards, rules and treaties ratified by Suriname.</p>
<p><b>ACT CONTAINING PROVISIONS TO PREVENT COLLISION ON THE RIVERS, STREAMS, CANALS, HARBOR ENTRANCE AND ENTRANCE TO THE SEA OF SURINAME AND ESTABLISHING SIGNALS FOR SHIPS IN DISTRESS OR DANGER.</b></p> <p><i>(Wet houdende bepalingen ter voorkoming van aanvaringen op rivieren, stromen, kanalen, havenmonden en zeegaten van Suriname en het vaststellen van seinen voor schepen die in nood of gevaar verkeren).</i></p> <p>G.B. 1951 no. 165</p>	<p>Rules to prevent collision and establish signals for ships in danger or distress.</p>	<p>Article 3-17: provisions to place visual lighting;</p> <ul style="list-style-type: none"> <li>• A vessel, when in motion, should have a bright white light on its mast or if there isn't one, in front of the vessel not less than 6 meters and no more than 12 meters above the hull and can be seen for 5 nautical miles.</li> <li>• On starboard side a green light that can be seen for 2 nautical miles</li> <li>• On port a red light that can be seen for 2 nautical miles</li> <li>• All sea vessels, which are not moving, must have a bright white light with white glasses on the big top</li> <li>• The light should be put as to be sighted from all sides.</li> <li>• If needed to attract attention all vessels are allowed, except for the normal lights, to display a flashing light or a fog signal which is not a distress call</li> </ul> <p>Article 18: give a sound signal in foggy weather;</p> <ul style="list-style-type: none"> <li>• All signals must be given from the horn and a long blow ranges between 4-6 seconds</li> <li>• Reduction of speed in foggy weather</li> <li>• Every vessel must reduce its speed in foggy or misty weather, heavy raining or any other situation where sight is reduced.</li> <li>• When two vessels are approaching each other straight on, both must sail to starboard in order to pass each other on port side and avoid collision.</li> </ul>	
<p><b>HARBORS DECREE</b></p> <p><i>(Decreet Havenwezen)</i></p> <p>S.B. 1981 no. 86</p>		<p>Article 3: The Director of MAS is the harbor master of Paramaribo and in the Districts commissioner in the districts where no harbor master is assigned.</p> <p>Article 15: The person in charge of an incoming vessel or vessel lying in the roadstead is obliged to provide all information requested by the harbor master.</p> <p>Article 16: In case a vessel caused damage to public or private properties, the person in charge is obliged to immediately report to the harbor master.</p>	

**OCCUPATIONAL HEALTH AND SAFETY**

<p><b>SAFETY ACT 1947</b> <i>(Veiligheidswet)</i></p> <p>G.B. 1947 no. 142 last amended by S.B. 1980 no. 116</p>	<p>Pertains to safety during labor activities.</p>	<p>Article 3: the president can defines measurements of safety by regulations for entrepreneurs in the areas of:</p> <ul style="list-style-type: none"> <li>• The avoidance or limitation of accidents and fires, provision of help during accidents and possibilities of escape during fire;</li> <li>• Stimulation of cleanliness;</li> <li>• Stimulation of bearable temperatures;</li> <li>• To prevent the existence and the spread, or the removal of detrimental or unpleasant fumes of gases or dust;</li> <li>• The prevention of damage to the health due to labor;</li> <li>• The heights of workrooms and free airspace for everybody ;</li> <li>• The daylight and artificial light ;</li> <li>• Electrical installations;</li> <li>• Locker rooms, break rooms and sleeping accommodations;</li> <li>• Toilets, urinals and washing rooms.</li> </ul>	
<p><b>SAFETY REGULATION 1, REGARDING THE PREVENTION AND LIMITATION OF ACCIDENTS IN ALL ENTERPRISES</b> <i>(Veiligheidsvoorschrift 1)</i></p> <p>G.B. 1947 no. 168</p>	<p>Regulates the prevention and limitation of accidents</p>	<p>Article 1: the parts of power tools (<i>krachtwerktuig</i>) and instruments (<i>werktuigen</i>) must be sheltered in case there is a risk;</p> <p>Article 6: when a machine starts up, persons should not be in touch with that machine;</p> <p>Article 13: lifting material should be well-maintained and when load is lifted, sudden drop should be prevented; when dropping a load the dropping should be slowed down with brakes;</p> <p>Article 17-19: lifting equipment, tackles and the parts should be used in compliance with safety measures;</p> <p>Article 40: Workers should have the disposal over appropriate protective equipment. For this, suitable storage places should be made available at land, in the air and on water.</p>	<p>According to Staatsolie’s PPE policy it is the responsibility of supervisory personnel to provide the necessary PPE and instructions for proper use and maintenance to workers who work under his or her supervision. Staatsolie aspires to create a work environment in which working safely has priority and in which risks to the health and safety of workers are minimized and where practicable, eliminated. Thereto the company has implemented various technical and administrative control measures and appropriate Personal Protective Equipment (PPE) are provided to eligible workers. Selection of PPE should be based on a thorough assessment of the health and safety risks associated with the work to be performed.</p>

<p><b>SAFETY REGULATION 3 TO PROVIDE FIRST AID</b></p> <p><i>(Veiligheidsvoorschrift 3),</i></p> <p>G.B. 1948 no. 183</p>	<p>Provide provisions for enterprises regarding first aid</p>	<p>Article 1: an enterprise in which driving gears or implements are set in motion by power tools it is obliged to provide effective first-aid in case of accidents.</p> <p>Article 2: in an enterprise where the chance of drowning exists, appropriate life saving equipment such as life jackets, swimming belts, rescue sticks etc. must be present.</p> <p>Article 7: the first aid person must hold a certificate of competency issued by the Medical Inspector.</p>	<p>Staatsolie employees are obliged to use the PPE supplied to him or her and to maintain and replace the PPE in accordance with the instructions provided to him/her.</p> <p>Employees are not allowed to use other PPE than such as provided or approved by the company, on company premises and when carrying out company work elsewhere.</p>
<p><b>SAFETY REGULATION 5 REGARDING THE TRANSPORT OF OBJECTS</b></p> <p><i>(Veiligheidsvoorschrift 5),</i></p> <p>G.B. 1950 no. 121.</p>	<p>Regulates the safe transport of heavy objects</p>	<p>Article 1: the sender of an article or object that has a weight of at least 1000 kg, and of which the transport will take place entirely or partly by a sea vessel or a ship, is obliged to see to it that before shipment, the indication of the weight of this article or object has been affixed to it on the outside, if possible on more than one side, and in a clear and durable way.</p> <p>Article 2: if for some reason the exact weight cannot be stated, it is established by approximation, and the note is made of this on the bill of lading.</p>	
<p><b>STATE ORDER ON DRIVING</b></p> <p><i>(Rijbesluit)</i></p> <p>G.B. 1960 no. 105 last amended by S.B. 2005 no. 17</p>	<p>Provide rules for safe driving</p>	<p>Article 16: The load of a vehicle shall be placed in such a manner that no harm or danger can be caused to others. The load may not reduce the safety of the vehicle.</p> <p>Article 22: if the road will be occupied more than usually, authorization from the District Commissioner, in whose resort the road transport will take place is obliged. With more than usually is meant:</p> <ul style="list-style-type: none"> <li>- if the load is substantially wider than the distance between the wheels;</li> <li>- if the speed is so slow that it can lead to traffic congestion</li> <li>- if it regards special vehicles, which are not intended for road traffic.</li> </ul> <p>Article 31c: noise and environmental aspects: the exhaust pipe from vehicles must be sound proofing; the Minister can prescribe allowable noise standards and carbon monoxide standards for exhaust fumes;</p> <p>Article 32a: the wearing of seat / safety belts is compulsory;</p> <p>Article 32b: while driving it is prohibited to make manual calls with a mobile phone.</p>	

## BILLS

### DRAFT ACT CONTAINING RULES FOR SUSTAINABLE ENVIRONMENTAL MANAGEMENT

*(Milieuwet)*

and

### DRAFT ACT ENVIRONMENTAL AUTHORITY

*(Ontwerpwet Milieu Autoriteit)*

Versie juni 2010

Some key provisions in the drafts are:

- Transforming of NIMOS into an “Environmental Authority”;
- allow for the creation and implementation of a comprehensive environmental policy and planning process;
- establish the importance of environmental protection and parity with all other considerations
- establish an Environmental Authority, which will become the primary environmental agency in Suriname; NIMOS will be the Environmental Authority;
- give effect within Suriname to many internationally-accepted principles of Environmental Law, including the principle of precaution, the polluter pays principle and the concept of environmental impact assessment
- introduce and give effect to the Environmental Impact Assessment Guidelines (see below);
- enshrine the principles of access to information, participation and legal protection for the Surinamese public;
- allow for the introduction of suitable regulations to address specific issues of environmental protection; and establish a framework for enforcement of environmental legislation and regulations, together with penalties.

The National Institute for Environment and Development in Suriname (NIMOS) has prepared draft legislation for the protection and management of the environment namely the draft “Environmental Act” and the draft “Act for the establishment of the Environment Authority”. It contains the basic fundamentals of environmental law, such as the “preventive” principle, the principle of “the polluter pays” and the principle of “environmental impact assessment”.

### 3. International conventions

<p><b>Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)</b></p> <p><b>Ratification 1985</b> <b>Focal point, RGB/NB</b></p>	<p>Provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources and recognizes the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.</p>	<p>The Coppename River mouth is a Ramsar site and Western Hemisphere Shorebird Reserve</p>
<p><b>United Nations Convention on Biological Diversity (CBD)</b></p> <p><b>Ratification 1996</b> <b>Focal point, ATM</b></p>	<p>Conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.</p>	<p>- In 2006 a National Biodiversity Strategy has been approved. The Vision of Suriname's Biodiversity Strategy is to value and protect our biological diversity, including all natural and cultural resources through equitable and sustainable use for present and future generations.</p> <p>- In process National Biodiversity Action Plan.</p>
<p><b>Convention on Nature protection and Wildlife Preservation in the Western Hemisphere</b></p> <p><b>Ratification 1985</b> <b>Focal point, RGB/NB</b></p>	<p>The convention has provisions to establish a set of protected areas:</p> <ul style="list-style-type: none"> <li>• national parks to provide recreational and educational facilities; strict wilderness areas to be maintained</li> <li>• co-operation in the field of research between governments; species listed in annex to enjoy special protection and controls to be imposed on trade in protected fauna and flora and any parts thereof</li> </ul>	<p>The Coppename River mouth is a Ramsar site and Western Hemisphere Shorebird Reserve</p>
<p><b>Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (the "London Convention")</b></p> <p><b>Ratification, 1974</b> <b>Focal point, ATM</b></p>	<p>The objective of this Convention is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes.</p>	<p>The London Convention was one of the first global conventions to protect the marine environment from human activities and has been in force since 1975.</p>
<p><b>Protocol to the London Convention on Prevention of Pollution by Dumping of Wastes and Other Matter 1972</b></p> <p><b>Ratification, 2006</b> <b>Focal point, ATM</b></p>	<p>The objective is to protect the marine environment and to promote the sustainable use and conservation of marine resources</p>	<p>In 1996, the "London Protocol" was adopted to modernize the Convention and, eventually, replace it. The London Protocol entered into force in March 2006.</p>

<p><b>The United Nations Convention on the Law of the Sea (UNCLOS)</b></p> <p><b>Ratification, 1998</b> <b>Focal point, MAS</b></p>	<p>The 1982 UNCLOS is the most comprehensive attempt at creating a unified regime for governance of the rights of nations with respect to the world's oceans. This convention addresses a number of topics including navigational rights, economic rights, pollution of the seas, conservation of marine life, scientific exploration, piracy, and more</p>	<p>UNCLOS settled the question of the extent of national sovereignty over the oceans and seabed, the various regions of the oceans, who has sovereignty over each, and to what degree. It also explains both how the maritime regions are divided (internal waters, territorial sea, contiguous zone, exclusive economic zone) and the sovereign powers that nations may exercise over each region</p>
<p><b>International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969</b></p> <p><b>Ratification, 1976</b> <b>Focal point, MAS</b></p>	<p>The Convention affirms the right of a coastal State to take such measures on the high seas as may be necessary to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil or other substances or the threat thereof, following upon a maritime casualty.</p>	<p>The coastal State can only take such action if it is necessary, and after due consultations, in particular, with the flag State or States of the ship or ships involved, the owners of the ships or cargoes in question and, where circumstances permit, independent experts appointed for this purpose.</p> <p>A coastal State which takes measures beyond those permitted under the Convention is liable to pay compensation for any damage caused by such measures.</p>
<p><b>International Convention for the Prevention of Pollution From Ships (MARPOL)</b></p> <p><b>Ratification, 1989</b> <b>Focal point, MAS</b></p>	<p>To objective is to preserve the marine environment through the complete elimination of pollution by oil and other harmful substances and the minimization of accidental discharge of such substances.</p>	<p>Marpol is one of the important conventions designed to minimize pollution of the seas, including dumping, oil and exhaust pollution. 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 under their respective nationalities</p>
<p><b>International Convention on the Safety of Life at Sea SOLAS</b></p> <p><b>Ratification 1989</b> <b>Focal point, MAS</b></p>	<p>The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety.</p>	<p>Flag States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done</p>

## 4. Corporate environmental policies and standards of Staatsolie

### Health, Safety & Environmental Policy

*Staatsolie is convinced that dedicated care for the safety and health of its employees, contractors, neighbors, and for the environment is essential for a sustainable development of the hydrocarbon industry in Suriname.*

*It is therefore the policy of Staatsolie to conduct business activities in such a way, as to prevent harm to the safety and health of its employees, contractors, neighbors, and the environments that may be affected by our operations.*

*The principles of Staatsolie's Health, Safety and Environmental Policy that will guide our daily operations are:*

- . Prevention of all incidents;*
- . Compliance with all applicable health, safety and environmental legislative requirements;*
- . Continual improvement of the company's health, safety and environmental performance;*
- . Prevention of environmental pollution.*

*Staatsolie is committed to these principles and will implement a Health, Safety and Environmental Management System that includes the following key-elements:*

- . Communication of the Health, Safety and Environmental Policy, objectives and targets, and other relevant matters to all employees, contractors and stakeholders;*
- . Integration of Health, Safety and Environmental management into overall business management;*
- . Practice of incident management, proactive as well as reactive;*
- . Programs to ensure the safe and environmentally responsible handling of waste streams;*
- . Conduct business activities in accordance with applicable health, safety and environmental laws & regulations and relevant international hydrocarbon industry standards;*
- . Communication of clearly defined and documented responsibilities and accountabilities of all employees with regard to health, safety and environmental performance;*
- . Training of all employees to perform their jobs in a safe and environmentally responsible manner;*
- . Annual objectives and targets designed to achieve continual improvement in the health, safety and environmental performance;*

*To ensure its continuing effectiveness the Health, Safety and Environmental Policy and Management System will be reviewed annually.*

*M.C.H. Waaldijk  
Managing Director  
February 2006*

## 5. Institutional Framework

Article 6g of the constitution states that the social objective of the State is directed towards the creation and stimulation of conditions necessary for the protection of nature and the maintenance of the ecological balance.

In order to facilitate efficient and effective implementation of environmental policy the Government of Suriname created an environmental management structure that is comprised of the following actors:

- **the Ministry of Labor, Technological development and Environment (ATM)**, responsible for the coordination of the preparation of the environmental policy and the monitoring thereof;
- **the National Council for the Environment**, responsible for advising the Government of Suriname with regards to environmental policy
- **the National Institute for Environment and Development in Suriname (NIMOS)**, the technical working arm of the Ministry of ATM and responsible for review of ESIA's, pollution control, monitoring and enforcement.

According to the State Order "Task Descriptions Ministries", (S.B. 1991 no. 58 last amended by S.B. 2005 no. 94) a number of Ministries have environmental related responsibilities and tasks.

Below is a table with Ministries and a description of their tasks relevant to the implementation and management of the project.

MINISTRY	RESPONSIBILITIES	REMARKS
<p>Ministry of Natural Resources (NH)</p> <p>Directorate (<i>Directoraat</i>): Energy, Mining and Water Management</p> <p>Divisions (<i>Afdelingen</i>): Geological Mining Service</p> <p>Parastatal Staatsolie Maatschappij Suriname</p>	<ul style="list-style-type: none"> <li>- The national policy with regard to energy and the natural resources, except the forest policy;</li> <li>- The inventory, exploration, optimal exploitation and management of: minerals, water and energy;</li> <li>- Monitoring the compliance of the rules and regulations with regard to water management, minerals, the generation, transport and distribution of energy;</li> </ul>	<p>Staatsolie also acts as agent for the State with respect to the petroleum industry. In this capacity Staatsolie Company is responsible for assessing the hydrocarbon potential of open blocks, offering them to the industry, negotiating petroleum contracts and supervising the execution of these agreements. Open blocks are made available through competitive bidding rounds or direct negotiations</p>
<p>Ministry of Labor, Technological Development and Environment (ATM)</p> <p>Environmental Section</p> <p>Directorate (Directoraten): Labor</p> <p>Divisions: Labor Inspection</p> <p>Institute (<i>Instituut</i>): National Institute for Environment &amp; Development in Suriname (NIMOS)</p>	<ul style="list-style-type: none"> <li>- Coordination of the preparation of environmental policy and monitoring of the implementation</li> <li>- Promotion of the implementation of environmental treaties</li> <li>- Promotion and realization of environmental legislation</li> <li>- Promote the use of environmental sound technologies</li> <li>- Identification, preparation and implementation of environmental training and education programs for environmental institutes and organizations</li> <li>- Inspection of companies on the use of environmentally harmful materials and technologies</li> <li>- Involvement of the public to combat environmental pollution.</li> </ul>	<p>ESIA process: guidance, review of ESIA report and monitoring of project is being done by NIMOS</p> <p>Preparations are made to transform the current Environmental Section into a new Directorate for Environment.</p>

<p><b>Ministry of Agriculture, Fisheries and Animal husbandry</b></p> <p>Sub directorate: <b>Fisheries</b> Division: <b>Fisheries Division</b></p>	<ul style="list-style-type: none"> <li>- Formulate policy regarding fisheries</li> <li>- Rules regarding the production, storage, processing and sales of the products from the fisheries;</li> <li>- Responsible for aquaculture and farming industry;</li> <li>- Management and protection of our national fish resources;</li> <li>- Control on the implementation of laws and regulations with regarding fisheries.</li> </ul>	<p>The Fisheries Division is amongst others responsible for the Monitoring and Inspection of the fishery sector, regulating the coast, inland waters en deep-sea fisheries. Representatives of this Department believe that the Seismic research (air gun shootings) will have an impact on the fisheries (fish catch) in the area. There are a lot of fishermen working with a permit. The Fisheries activities are than protected by a permit. The areas where these fishermen work are outside of the channel and according to the information from Staatsolie, the exploration vessels will sail within the channel.</p> <p>An important message that was given by the Ministry is that Staatsolie should notify the ministry of LVV on time about the coming activities, in order to inform the fishermen on time.</p>
<p><b>Ministry of Transport, Communication and Tourism (TCT)</b></p> <p>Authority (<i>Autoriteit</i>): <b>MAS</b></p> <p>Department: <b>Traffic, Maritime Security and Ports</b></p> <p>Sub Department: <b>Registration, Inspection and Certification</b></p>	<ul style="list-style-type: none"> <li>- Water-, air- and road transport</li> <li>- Management of all ports</li> </ul>	<p>The department of Traffic, Maritime Security and Ports is responsible for:</p> <ul style="list-style-type: none"> <li>• Investigation of incidents on the inland waterways such as collisions, damage of fishing nets, oil spills, stranded vessels, sinking of vessels</li> <li>• Regular inspection on the river (boats, piers, buoys, bridges)</li> </ul> <p>The activities of the Sub Department Registration, Inspection and Certification are as follows:</p> <ul style="list-style-type: none"> <li>• Inspection (examining) of vessels sailing our inland waterways. These include public fishing, coastal fishing and offshore fishing vessels; ferries and other vessels such as motorized flat-bottom boats and pleasure boats.</li> <li>• Conducting Port State Control (PSC) inspections on foreign vessels that put in at the Surinamese ports.</li> </ul> <p>On March 19 2009 the MAS made a written notice regarding the obligation to inform incoming ships smaller than 50 gross tons in the Suriname or Corantijn river through VHF canal 12 or 16. The information shall include the name, registration number and</p>

		<p>the destination of the vessel. The information can also send to fax 597 472845/597 472940 Paramaribo or 597 231585 Corantijn/Nickerie and mail to: <a href="mailto:Maritimeadministration@mas.sr">Maritimeadministration@mas.sr</a> and/or <a href="mailto:Nickerie@mas.sr">Nickerie@mas.sr</a>.</p> <p>All movement of ships in the harbor should be reported to the MAS. There is no legal obligation to register or test these vessels in Suriname. However it is expected that vessels are in good condition.</p> <p>If the country of origin has not provided a certificate of seaworthiness, the Maritime Authority can ask for a recent survey report on the condition of the vessel.</p> <p>In addition, all activities of Staatsolie on the river should be in close collaboration with MAS. Staatsolie should inform the MAS up front (at least a week) to allow them to give public notice (in news papers and communications with the shipping companies and all registered fisheries companies). Especially when it regards activities on busy routes like the Suriname river. All vessels are obliged to comply with the law of GB1951 no. 165.</p>
<p><b>Ministry of Physical Planning, Land and Forest Management</b></p> <p><b>Sub-directorate (<i>Onder-Directoraat</i>):</b> <b>Land Affairs</b></p> <p><b>Divisions (<i>Afdelingen</i>):</b> <b>Hypothecator Office, Domain, Land Inspection</b></p> <p><b>Sub-directorate (<i>Onder-Directoraat</i>):</b> <b>Forest Management, Divisions (<i>Afdelingen</i>):</b> <b>Forest Management, Nature Conservation</b></p> <p><b>Institutes (<i>Instituten</i>):</b> <b>Stinasu</b></p>	<ul style="list-style-type: none"> <li>- Land destination , and where necessary in interdepartmental relation;</li> <li>- The control of legitimate and appropriate use of issued land, and where necessary in inter departmental relation;</li> <li>- The inventory, exploration, optimal exploitation and management of the natural resource forest, flora and fauna;</li> <li>- Control on the implementation of laws and regulations with regards to flora and fauna;</li> <li>- Responsible nature management and protection;</li> </ul>	<p>Nature reserves and MUMA's are managed by the head of the Surinamese forest service (LBB), while the Nature Conservation Division is entrusted with the daily management of protected areas and wildlife management in Suriname.</p> <p>They supervise that no damage is caused to these areas.</p> <p>It is therefore recommended that all economic activities shall be reported to the head of LBB<sup>7</sup>.</p>

<sup>7</sup> Personal communication with Mrs. Claudine Sakimin, head Nature Conservation Division.

## 6. Summary

The legal framework in which the 2D River Seismic will take place is very broad and this report mainly covers the Environmental, Health and Safety aspects. Beside the national legal regime, there are a number of international Conventions ratified by Suriname, which have to be taken into consideration. However, due to our law system, these conventions are only enforceable when transformed into national legislation.

In addition Staatsolie has adopted an Health, Safety and Environmental (HSE) policy.

The PESIA will meet the HSE principles as outlined in the HSE policy, which aspires:

- prevention of all incidents
- compliance with all applicable health, safety and environmental legislative requirements
- continual improvement of the company's health, safety and environmental performance
- prevention of environmental pollution

In order to meet the national requirements, Staatsolie will consider the following:

- Comply with the environmental and safety stipulations in the Mining Act, Petroleum Act and the Decree giving authorization to Staatsolie to do research and exploit hydrocarbons. The Ministry of NH is responsible for enforcement.
- The activities will take place in/near sensitive areas (MUMAs and nature reserves) and therefore the relevant legislation should be complied with. The Nature Conservation Division of the Ministry of ROGB is the responsible institution and should be consulted.
- The activities will take place in a number of main rivers and along the coast and the legislation regarding water pollution and river management should be complied with. The MAS is the organization responsible for the enforcement of the applicable legislation.
- The identified occupational health and safety regulations should be complied with. The Labor Inspection Division of the Ministry of ATM is the responsible for enforcement. The regulations regarding road safety fall under the responsibility of the Ministry of Justice and Police.

**ANNEX A**  
**GENERAL FIELD INSTRUCTIONS**  
**I : SARACCA OPERATIONS**

GFI no	Subject	Scope
<b>Section 1</b> <b>ADMINISTRATIVE</b>		
104N	Security Rules for Saramacca Operations Dutch	This instruction outlines the security rules and regulations applicable to the Saramacca Operations for the different groups concerned.
105 + 105N	<a href="#">Routine Safety Talks.</a> English/Dutch	This instruction formalizes the dissemination of information through regular meetings, approximately ten minutes long, commonly called "Toolbox Meetings" or "Safety Talks".
106	<a href="#">HSE and Security Induction for New Arrivals.</a> English	This instruction describes the management of the system that controls HSE and Security Induction through which every new arrival is made familiar with the company's health, safety, environmental and security requirements as they relate to the activity that they are about to undertake.
109 + 109N	<a href="#">Code of dress for industrial areas.</a> English/Dutch	This General Field Instruction outlines the type of clothing and minimum personal protective equipment (PPE) for the employees and visitors present at Staatsolie industrial workplaces.
110	<a href="#">Incident Reporting.</a> English	This instruction details the process for the reporting of incidents, which initiate the investigation of these incidents. Incidents are reported and recorded for, Mitigating of consequences; Preventing recurrence; Monitoring performance; Satisfying statutory requirements and for Insurance claims.
119 + 119N	<a href="#">Personal protective equipment.</a> English/Dutch	This GFI identifies the most common types of personal protective equipment for the various locations on the Saramacca Field.
120 + 120N	<a href="#">General traffic rules.</a>	This GFI defines the general traffic rules to guide the performance of company employees, contractor's employees and visitors while on company roads. It also defines rules for the behavior of drivers of company owned and rented vehicles on public roads.
126	<a href="#">Safe Use of Mobile Communication Devices.</a>	This instruction provides guidance to the safe use of mobile Communication Devices in order to minimize hazards that are introduced with it.
130 + 130N	<a href="#">Formatting of Work instructions.</a>	This GFI guides the process of selecting activities for which Work Instructions must be written and the formatting of the instructions.
131	<a href="#">Guidelines for Departmental HSE Teams.</a>	This GFI outlines the terms of reference and composition of the Departmental HSE Teams which are intended to assist the departmental head in the execution of the departmental HSE program and to achieve workers participation.

132	Contractor Health, Safety and Environmental Management	This GFI provides guidance to Staatsolie staff in promoting and managing HSE performance of Contractors.
<b>Section 2</b>		
<b>JOB SAFETY INSTRUCTIONS</b>		
200 + 200N	<a href="#">Permit to work system - General.</a> English/Dutch	This GFI provide guidelines to the process of “the Permit to Work system” that is in force at the Saramacca Operations, so designed: 1. That one central authority knows all activities that are intended to take place at any location and, 2. To ensure that adequate precaution is taken and that the condition of the equipment on which the work was done is safe for returning it to service.
210 + 210N	<a href="#">Handling of Hazardous Chemicals.</a> English/Dutch	This instruction describes the management system for the selection, handling and disposal of all hazardous chemicals used by Staatsolie.
214 + 214N	<a href="#">Isolation, Lockout and Warning Tags.</a> English/Dutch	This procedure establishes guidelines to prevent personal injury and property damage due to an unexpected release of energy or hazardous materials.
215	<a href="#">Management of Change Procedure</a>	This General Field Instruction provides guidelines in how to manage division cross-bordering changes at the Saramacca Operations that might create safety hazards for others than the originating division of the intended change.
225 + 225N	<a href="#">Storage, Transportation and handling of Compressed, liquefied and pressurized gasses.</a> English/Dutch	This GFI handles the general guidelines for safe storage, transportation and the handling of gas bottles. The most common industrial gasses, which are used by Staatsolie, are oxygen, acetylene, nitrogen, propane (LPG), butane and carbon dioxide.
232	Job Safety Analysis	Job Safety Analysis is a proven method that evaluates a sequence of job steps or tasks to identify and document potential hazards and to take countermeasures to protect workers’ health and safety against those hazards. <u>This instruction provides guidance for conducting a Job Safety Analysis.</u>
<b>233</b>	<b>Safety Color Codes</b>	This instruction establishes the requirements for a uniform visual system for marking potential hazards, and provides an effective means of communicating hazard information to the employees & contractors, in order to reduce the likelihood of injury from potential hazards in the work environment. It defines the color codes of signs, tags and barricades to be used in controlling exposure to potential hazards, and specifies requirements for design uniformity to promote employee recognition and avoidance of hazards.
<b>Section 3</b>		
<b>EMERGENCY RESPONSE</b>		
305 + 305N	<a href="#">Emergency Response - Injury / Illness.</a> English/Dutch	This instruction describes the procedure that needs to be followed when an emergency situation at the Staatsolie Saramacca Location turns up.

<b>Section 4</b>		
<b>EQUIPMENT STANDARDS AND SPECIFICATIONS</b>		
400	<a href="#"><u>Inspection of Fire Protection and Emergency Equipment.</u></a> English	This GFI provides departments and divisions of the Saramacca Operations with procedures for the inspection of Fire protection and Emergency Equipment, which must be in good condition at all time.
405	Scaffolding Rules English	This GFI provides the guidelines of erecting tubular scaffolding.
410 + 410N	<a href="#"><u>Care of Gas Detection Instruments.</u></a> English/Dutch	This instruction provides guidelines for care of gas detection instruments.
<b>Section 6</b>		
<b>ENVIRONMENT PROTECTION</b>		
611 + 611N	<a href="#"><u>Solid waste handling and disposal.</u></a> English/Dutch	This instruction provides guidance for solid waste handling and disposal requirements for waste listed in the appendix of this field instruction.

**GENERAL FIELD INSTRUCTIONS  
II : TOU LUI FAUT OPERATIONS**

GFI no	Subject	Scope
<b>Section 1 ADMINISTRATIVE</b>		
102	TLF Operations Vehicle Traffic Control	This instruction provides guidelines for the control of vehicle traffic within the Tout Lui Faut operations
103	Access to and from Jetty	This instruction provides guidelines regarding the access to and from the jetty for un-authorized personnel of the refining operations, visitors and crewmembers.
104 + 104N	Security rules for TLF Operations English/Dutch	This instruction outlines the security rules for the different groups concerned
105	Routine Safety Talks. English	This instruction formalizes the dissemination of information through regular meetings, approximately ten minutes long, commonly called "Toolbox Meetings" or "Safety Talks".
106	HSE and Security Induction for New Arrivals English	This instruction provides guidance to the process of conducting an introduction course on HSE and security issues applicable at Staatsolie and in particular at Tout Lui Faut operations.
108	Safety Induction Visitors	This instruction provides guidance tot the process of conducting a safety induction for visitors at the Tout Lui Faut Operations through which they are made familiar with the hazards they might be exposed to during their visit at the refinery and what to do in case of an emergency.
109	Code of dress for industrial areas.	This General Field Instruction outlines the type of clothing and minimum personal protective equipment (PPE) for the employees and visitors present in industrial workplaces of Staatsolie at TLF Operations.
110	Primary Incident Report	This instruction details the process for the reporting of incidents at the TLF Operations in order to mitigate of consequences; Prevent recurrence; Monitor performance; Satisfy statutory requirements and for Insurance claims.
120	General traffic rules.	This GFI defines the general traffic rules at the TLF Operations to guide the performance of company employees, contractor's employees and visitors while on company roads. It also defines rules for the behavior of drivers of company owned and rented vehicles on public roads.
126	Use of Mobile Communication Devices.	This instruction provides guidance to the safe use of mobile Communication Devices at the Tout Lui Faut Operations, in order to minimize hazards that are introduced with it.
<b>Section 2 JOB SAFETY INSTRUCTIONS</b>		
200	Permit to work system	This GFI provide guidelines to the process of “the Permit to Work system” that is in force at the TLF Operations, so designed: <ul style="list-style-type: none"> <li>• That one central authority knows all activities that are intended to take place at any location and,</li> <li>• To ensure that adequate precaution is taken and that the condition of the equipment on which the work was done is safe for returning it to service.</li> </ul>

207	Confine Space – Preparations/Cautions	This instruction details the procedure to prepare confined spaces such as petroleum storage tanks and process vessels for entry. It also identifies some known hazards and precautions to avoid accidents.
215	Management of Change	This General Field Instruction provides guidelines in how to manage division cross-bordering changes at the Tout Lui Faut Operations that might create safety hazards for others than the originating division of the intended change.
221	Use of Cranes Supporting Work Cages	In this instruction the conditions are laid down to which cranes are subjected to when being used to support work cages.
<b>Section 3 EMERGENCY RESPONSE</b>		
300	Emergency Response Plan - General	This instruction describes the procedure that needs to be followed when an emergency situation at the Tout Lui Faut Operations turns up.
301	Emergency Response Plan – Fire/Explosion	This GFI outlines the responses specific to fire and explosion by the site personnel and the Emergency Response team detailed in GFI 300 – Emergency response Plan---general.
302	Emergency Plan - Evacuation	This GFI outlines the responses specific to evacuation by the site personnel and the Emergency Response team detailed in GFI 300 – Emergency response Plan---general.
303	Emergency Plan – Oil Spill	This GFI outlines the emergency responses at the TLF operations when an oil spill occurs
<b>Section 4 EQUIPMENT STANDARDS AND SPECIFICATIONS</b>		
400	Inspection Fire Protection and Emergency Equipment.	This GFI provides departments and divisions of the Tout Lui Faut Operations with procedures for the inspection of Fire protection and Emergency Equipment, which must be in good condition at all time.
403	Towing Assemblies	This instruction defines minimum requirements for the design and construction of towing assemblies.
405	Tubular Scaffolding Rules.	This GFI provides the guidelines of erecting tubular scaffolding
407	Mobile Equipment	This GFI will discuss the basic requirements when working with or near motorized equipment.
410	Care of Gas detection instruments	This instruction provides guidelines for care of gas detection instruments.
<b>Section 6 ENVIRONMENT PROTECTION</b>		
600	Monitoring of TLF Aqueous Effluent	This GFI provide guidelines for the routine inspections and sampling of several points in order to monitor the aqueous effluent of Tout Lui Faut
611	Solid waste handling and disposal.	This instruction provides guidance for solid waste handling and disposal requirements for waste listed in the appendix of this field instruction.

**7. GENERAL FIELD INSTRUCTIONS**  
**8. III - HEAD OFFICE**

GFI no	Subject	Scope
<b>Section 1</b> <b>ADMINISTRATIVE</b>		
105N	Routine Safety Talks. Dutch	This instruction formalizes the dissemination of information through regular meetings, approximately ten minutes long, commonly called "Toolbox Meetings" or "Safety Talks".