



MARINE ENVIRONMENT PROTECTION STANDARD

REV. 01

APPENDIX 2 INTERNATIONAL REQUIREMENTS FOR MARINE ENVIRONMENT PROTECTION

PURPOSE

To confirm formal adoption by Sakhalin Energy of International conventions, Standards and other requirements in relation to *Marine Environment Protection* in accordance with Russian Federation, Lenders and Shareholder requirements.

WHO IS THIS FOR?

- General HSE Manager
- Corporate Environmental Manager
- Asset Managers
- Project and other Managers
- Contract Holders
- Contractors

REQUIREMENTS

Sakhalin Energy shall comply with the provisions of all applicable International conventions and internationally recognized standards related to Marine Environment Protection.

By virtue of its commitment to comply with material HSE and social law under Common Terms Agreement of the Loan, Sakhalin Energy is already under an obligation to comply with those provisions of the HSE and social international conventions which apply to private entities under Russian law and which are material to the Project.

Title	
#	Content of Requirements
A. International Conventions	
1	United Nations Convention on the Law of the Sea, 1982
	<p>Introduced into the international law such terms as "territorial sea", "continental shelf", "exclusive economic zone", "high sea", and "area" and established the regime of straits, archipelagos, enclosed and semi-enclosed seas; separate sections are devoted to marine environment protection and marine scientific research.</p> <p>States are obliged to take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights.</p> <p>Measures taken to ensure the protection and conservation of marine environment must include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life. Some sections of the Convention are devoted to maintenance of control over pollution from various sources as well as monitoring and environmental assessment.</p>
2	The Convention on the International Maritime Organisation, 1948
	<p>Established International Maritime Organisation (IMO). The Organization consists of an Assembly, a Council and five main Committees: the Maritime Safety Committee; the Marine Environment Protection Committee; the Legal Committee; the Technical Co-operation Committee and the Facilitation Committee and a number of Sub-Committees support the work of the main technical committees.</p> <p>The purposes of IMO include encouragement and facilitation of the general adoption of the highest</p>



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practicable standards in matters concerning the maritime safety, efficiency of navigation and prevention and control of marine pollution from ships, as well as any matters concerning shipping and the effect of shipping on the marine environment that may be referred to it by any organ or specialized agency of the United Nations.

3 **International Convention on [Oil Pollution Preparedness, Response and Co-operation \(OPRC\)](#), 1990**

Ships are required to carry a shipboard oil pollution emergency plan. Operators of offshore units under the jurisdiction of Parties are also required to have oil pollution emergency plans or similar arrangements which must be co-ordinated with national systems for responding promptly and effectively to oil pollution incidents. Ships are required to report incidents of pollution to coastal authorities and the convention details the actions that are then to be taken. The Convention calls for the establishment of stockpiles of oil spill combating equipment, the holding of oil spill combating exercises and the development of detailed plans for dealing with pollution incidents.

Parties to the convention are required to provide assistance to others in the event of a pollution emergency and provision is made for the reimbursement of any assistance provided.

4 **International Convention on [Civil Liability for Oil Pollution Damage \(CLC\)](#), 1969 [1992 Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage \(FUND 1992\)](#)**

The Convention on [Civil Liability for Oil Pollution Damage](#) covers pollution damage resulting from spills of persistent oils suffered in the territory (including the territorial sea) of a State Party to the Convention. It is applicable to ships which actually carry oil in bulk as cargo, i.e. generally laden tankers. Spills from tankers in ballast or bunker spills from ships other than other than tankers are not covered, nor is it possible to recover costs when preventive measures are so successful that no actual spill occurs. The ship owner cannot limit liability if the incident occurred as a result of the owner's personal fault. The Convention requires ships covered by it to maintain insurance or other financial security in sums equivalent to the owner's total liability for one incident.

Fund is under an obligation to pay compensation to States and persons who suffer pollution damage, if such persons are unable to obtain compensation from the owner of the ship from which the oil escaped or if the compensation due from such owner is not sufficient to cover the damage suffered. The Fund's obligation to pay compensation is confined to pollution damage suffered in the territories including the territorial sea of Contracting States. The Fund is also obliged to pay compensation in respect of measures taken by a Contracting State outside its territory.

5 **Convention on [Limitation of Liability for Maritime Claims \(LLMC\)](#), 1976 [International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea \(HNS\)](#), 1996 (and its 2010 Protocol)**

The Convention on [Limitation of Liability for Maritime Claims](#) provides for a virtually unbreakable system of limiting liability. Ship owners and salvors may limit their liability, except if "it is proved that the loss resulted from his personal act or omission, committed with the intent to cause such a loss, or recklessly and with knowledge that such loss would probably result".

HNS are defined by reference to lists of substances included in various IMO Conventions and Codes. The HNS Convention defines damage as including loss of life or personal injury; loss of or damage to property outside the ship; loss or damage by contamination of the environment; the costs of preventative measures and further loss or damage caused by them. The Convention introduces strict liability for the ship owner and a system of compulsory insurance and insurance certificates.

6 **International Convention on Civil Liability for [Bunker Oil Pollution Damage](#), 2001**

The Convention was adopted to ensure that adequate, prompt, and effective compensation is available to persons who suffer damage caused by spills of oil, when carried as fuel in ships' bunkers. The Convention applies to damage caused on the territory, including the territorial sea, and in exclusive economic zones of



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States Parties. The bunkers convention provides a free-standing instrument covering pollution damage only.

7 International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997([MARPOL 73/78](#))

The International Convention for the Prevention of Pollution from Ships (MARPOL) is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The Convention includes regulations aimed at preventing and minimizing pollution from ships - both accidental pollution and that from routine operations - and currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes.

Annex I - Regulations for the Prevention of Pollution by Oil

Annex II - Regulations for the 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 - Prevention of Pollution by Sewage from Ships

Annex V - Prevention of Pollution by Garbage from Ships

Annex VI - Prevention of Air Pollution from Ships

The State Parties are obliged to ratify Annexes I and II, whereas other Annexes are optional.

8 The International Convention for the Prevention of Pollution of the Sea by Oil, 1954

The only known 100% effective method of preventing oil pollution is the complete avoidance of discharges of persistent types of oil to the sea or taking measures that would assist in achieving it to a greater extent.

This brought about the establishment of Prohibited Zones, in which the discharge of oil or fuel is prohibited in accordance with respective definitions provided in the Convention.

9 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969, as modified by the Protocol of 1973

The Convention applies to all seagoing vessels except warships or other vessels owned or operated by a State and used on Government non-commercial service. The 1969 Intervention Convention applied to casualties involving pollution by oil. In view of the increasing quantity of other substances, mainly chemical, carried by ships, some of which would, if released, cause serious hazard to the marine environment, the 1973 Protocol extended the regime of the 1969 Intervention Convention to substances which are either listed in the Annex to the Protocol or which have characteristics substantially similar to those substances.

10 The Convention on the Territorial Sea and the Contiguous Zone, 1958

Declared that "the sovereignty of a State extends, beyond its land territory and its internal waters, to a belt of sea adjacent to its coast, described as the territorial sea," and "to the air space over the territorial sea as well as to its bed and subsoil".

In a zone of the high seas contiguous to its territorial sea, which may not extend beyond twelve miles from the baseline, the coastal State may exercise the control necessary to prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea, as well as to punish infringement of the above regulations committed within its territory or territorial sea.

11 The Convention on the Continental Shelf, 1958

The exploration of the continental shelf and the exploitation of its natural resources must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea, nor result in any interference with fundamental oceanographic or other scientific research carried out with the intention of open publication.

12 Stockholm Declaration of the United Nations, 1972

States have the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

States shall take all possible steps to prevent pollution of the seas by substances that are able to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.



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13	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter ('London Convention'), 1972 (and the 1996 London Protocol)
<p>The London Convention contributes to the international control and prevention of marine pollution by prohibiting the dumping of certain hazardous materials. In addition, a special permit is required prior to dumping of a number of other identified materials and a general permit for other wastes or matter.</p> <p>"Dumping" has been defined as the deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures, as well as the deliberate disposal of these vessels or platforms themselves. Annexes list wastes which cannot be dumped and others for which a special dumping permit is required.</p>	
14	International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004
<p>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.</p> <p>Under the Convention, all ships in international traffic are required to manage their ballast water and sediments to a certain standard, according to a ship-specific ballast water management plan. All ships will also have to carry a ballast water record book and an international ballast water management certificate. The ballast water management standards will be phased in over a period of time. As an intermediate solution, ships should exchange ballast water mid-ocean. However, eventually most ships will need to install an on-board ballast water treatment system.</p>	
15	International Convention on the Control of Harmful Anti-fouling Systems on Ships, 2001
<p>The Convention prohibits the use of harmful organotins in anti-fouling paints used on ships and establishes a mechanism to prevent the potential future use of other harmful substances in anti-fouling systems. Parties to the Convention are required to prohibit and/or restrict the use of harmful anti-fouling systems on ships flying their flag, as well as ships not entitled to fly their flag but which operate under their authority and all ships that enter a port, shipyard or offshore terminal of a Party. Anti-fouling systems to be prohibited or controlled are listed in an annex to the Convention, which will be updated as and when necessary. The Convention includes a clause which states that a ship shall be entitled to compensation if it is unduly detained or delayed while undergoing inspection for possible violations of the Convention.</p>	
16	The Final Act of the Conference on the Security and Cooperation in Europe, 1975
<p>The Parties that took part in the Conference confirmed that economic development and technical progress must be compatible with the protection of the environment and the preservation of historical and cultural values; that damage to the environment is best avoided by preventive measures; and that the ecological balance must be preserved in the exploitation and management of natural resources.</p>	
17	United Nations World Charter for Nature, 1982
<p>Demanded that ecosystems and organisms, as well as the land, marine and atmospheric resources that are utilised by man, should be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist. In the planning and implementation of social and economic development activities, due account should be taken of the fact that the conservation of nature is an integral part of those activities.</p> <p>Activities which may disturb nature should be preceded by assessment of their consequences, and environmental impact studies of development projects should be conducted sufficiently in advance, and if they are to be undertaken, such activities should be planned and carried out to minimise potential adverse effects.</p>	
18	United Nations Convention on Biological Diversity, 1992
<p>Every State Party assumed the obligation to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes as well as integrate, as far as possible and as appropriate, the conservation and sustainable</p>	



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use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

For this purpose the countries must, among others, promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings; promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas; rehabilitate and restore degraded ecosystems and promote the recovery of threatened species; and endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components.

19 **The International Convention for the Regulation of Whaling, 1946**

Has vested the International Whaling Commission with powers, exercisable via or in cooperation with independent agencies of Contracting Governments or with any other public or private agencies, institutions or organisation or independently, to do the following:

- collect and analyse statistical information concerning the current condition and trend of the whale stocks and the effects of whaling activities thereon;
- study, appraise, and disseminate information concerning methods of maintaining and increasing the populations of whale stocks.

The Commission may from time to time make recommendations to any or all Contracting Governments on any matters which relate to whales or whaling and to the objectives and purposes of this Convention.

20 **Convention for a North Pacific Marine Science Organisation, 1990**

The purpose of the Organisation is to promote and coordinate marine scientific research in order to advance scientific knowledge of the area concerned and of its living resources, including but not necessarily limited to research with respect to the ocean environment and its interactions with land and atmosphere, its role in and response to global weather and climate change, its flora, fauna and ecosystems, its uses and resources, and impacts upon it from human activities as well as to promote the collection and exchange of information and data related to marine scientific research in the area concerned.

B. Lender's Requirements

1 **The Equator Principles, 2013**

The Equator Principles (EPs) represent a credit risk management framework for determining, assessing and managing environmental and social risk in Project Finance transactions and are applied where total project capital costs exceed US\$10 million. Equator Principles Financial Institutions (EPFIs) commit to not providing loans to projects where the borrower will not or is unable to comply with the Equator Principles.

2 **IFC Performance Standard 1: "Assessment and Management of Environmental and Social Risks and Impacts" (January 1, 2012)**

The client, in coordination with other responsible government agencies and third parties as appropriate, shall conduct a process of environmental and social assessment, and establish and maintain an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts. The ESMS shall incorporate the following elements: (i) policy; (ii) identification of risks and impacts; (iii) management programs; (iv) organizational capacity and competency; (v) emergency preparedness and response; (vi) stakeholder engagement; and (vii) monitoring and review.

3 **IFC Performance Standard 3: "Resource Efficiency and Pollution Prevention" (January 1, 2012)**

Standard outlines a project-level approach to resource efficiency and pollution prevention and control in line with internationally disseminated technologies and practices. In addition Standard promotes the ability of private sector companies to adopt such technologies and practices as far as their use is feasible in the context of a project that relies on commercially available skills and resources.

The client shall avoid the release of pollutants or, when avoidance is not feasible, minimize and/or control the intensity and mass flow of their release. This applies to the release of pollutants to air, water, and land due to routine, non-routine, and accidental circumstances with the potential for local, regional, and transboundary impacts. To address potential adverse project impacts on existing ambient conditions, the client will consider relevant factors, including, for example (i) existing ambient conditions; (ii) the finite assimilative capacity of the environment; (iii) existing and future land use; (iv) the project's proximity to areas of importance to biodiversity; and (v) the potential for cumulative impacts with uncertain and/or irreversible consequences.



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4	IFC Performance Standard 6: "Biodiversity Conservation and Sustainable Management of Living Natural Resources" (January 1, 2012)
	<p>The risks and impacts identification process shall consider direct and indirect project-related impacts on biodiversity and ecosystem services and identify any significant residual impacts. This process shall consider relevant threats to biodiversity and ecosystem services, especially focusing on habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution. As a matter of priority, the client shall seek to avoid impacts on biodiversity and ecosystem services. When avoidance of impacts is not possible, measures to minimize impacts and restore biodiversity and ecosystem services should be implemented. Given the complexity in predicting project impacts on biodiversity and ecosystem services over the long term, the client shall adopt a practice of adaptive management in which the implementation of mitigation and management measures are responsive to changing conditions and the results of monitoring throughout the project's lifecycle.</p>
5	<u>Environmental, Health, and Safety (EHS) General Guidelines (2007)</u>
	<p>General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines which provide guidance to users on EHS issues in specific industry sectors. The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs.</p>
6	<u>Environmental, Health, and Safety Guidelines for Offshore Oil and Gas Development (2007)</u>
	<p>The EHS Guidelines for Offshore Oil and Gas Development include information relevant to seismic exploration, exploratory and production drilling, development and production activities, offshore pipeline operations, offshore transportation, tanker loading and unloading, ancillary and support operations, and decommissioning. It also addresses potential onshore impacts that may result from offshore oil and gas activities.</p>
7	<u>Environmental, Health, and Safety Guidelines for Shipping (2007)</u>
	<p>The EHS Guidelines for Shipping include information relevant to the operation and maintenance of ships used for the transport of bulk cargo, and goods. The EHS Guidelines for Shipping apply to vessels operated with fossil fuels and do not address issues to pacific nuclear powered vessels.</p>
8	<u>Environmental, Health, and Safety Guidelines for Ports, Harbors, and Terminals (2007)</u>
	<p>The EHS Guidelines for Ports, Harbors, and Terminals are applicable to commercial ports, harbors, and terminals for cargo and passengers transfer including cargo handling, vessel maintenance and other in-port activities.</p>
9	<u>Environmental, Health, and Safety Guidelines for Crude Oil and Petroleum Product Terminals (2007)</u>
	<p>The EHS Guidelines for Crude Oil and Petroleum Product Terminals include information relevant to land and shore-based petroleum storage terminals receiving and dispatching bulk shipments of crude oil, gasoline, middle distillates, aviation gas, lube oil, residual fuel oil, compressed natural gas (CNG), liquid petroleum gas (LPG), and specialty products from pipelines, tankers, railcars, and trucks for subsequent commercial distribution.</p>
10	<u>Environmental, Health, and Safety Guidelines for Liquefied Natural Gas (LNG) Facilities (2007)</u>
	<p>The EHS Guidelines for Liquefied Natural Gas (LNG) Facilities include information relevant to LNG base load liquefaction plants, transport by sea, and regasification and peak shaving terminals.</p>