
Marine Pollution from the Offshore Oil and Gas Industry: Review of Major Conventions and Russian Law (Part II)

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ABSTRACT

The international and regional conventions on marine pollution from the offshore oil and gas industry were discussed in Part I of this article. This Part examines the Russian environmental regime for offshore oil and gas operations with a particular focus on existing federal environmental legislation in Russia and its application to the offshore petroleum industry, the administrative structure overseeing the ecological regime, and roles and responsibilities of government authorities concerned with environmental protection. It also briefly discusses offshore hydrocarbon resources on the Russian continental shelf and the Russian offshore petroleum industry generally.

Russian Perspective on Offshore Activities

As mentioned in the Abstract above, Part I set the international scene. This Part describes the Russian situation. Russia is the world's largest exporter of natural gas, the second largest oil exporter, the third largest energy consumer, and the holder of the world's richest offshore hydrocarbon resources.¹ The future of the Russian offshore petroleum sector is of key importance not only for the country's economic growth, but also for meeting global energy demands and maintaining stability of world energy markets.² Russian energy was at the centre of discussions that took place during the G8 Summit, held in July 2006 in St Petersburg, Russia. Increasing offshore petroleum production activities pose a significant threat to Russia's marine environment. As stated in Part I

a satisfactory level of environmental safety may be achieved through effective regulation of this industry. Before examining the Russian environmental regime, it is appropriate to discuss Russia's offshore oil and gas resources and the offshore industry.

Hydrocarbon Resources of the Russian Continental Shelf

Almost one-third of the world's natural gas reserves and one-tenth of the world's oil reserves are located in Russia's super-giant and smaller adjacent fields.³ Most of these oil and gas resources are offshore. The area of the Russian continental shelf is 4.2 million square kilometres, and approximately ninety per cent of the shelf was found to be prospective for oil and gas.⁴ Russia's offshore hydrocarbon resources consist primarily of natural gas, which is estimated at 85 trillion cubic metres, whereas oil reserves account for a smaller portion of offshore resources – only 15.5 billion tons.⁵

The Arctic and Far Eastern regions have especially good prospects for offshore developments. Exploration activities in these regions revealed the existence of enormous oil- and gas-bearing basins. For example, the Rusanovskoe and Leningradskoe giant fields in the Kara Sea (Figure 1) are estimated to hold 5 trillion cubic metres of natural gas,⁶ and the Shtokmanovskoe gas condensate field in the Barents Sea (Figure 1) is probably the world's largest known offshore gas field, containing reserves of approximately 3 trillion cubic metres of gas and more than 20 million tons of gas condensate.⁷

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These statistics are very impressive considering that worldwide gas production at present totals 2 trillion cubic metres a year.

The Offshore Petroleum Industry in Russia

Exploration and development of the Russian offshore oil and gas fields has been in progress for a relatively long time, although on a smaller scale, and not on the continental shelf.⁸ The first offshore oil production activity in Russia started in 1824 in the Caspian Sea (Figure 2), where the first waterproof wells were built at a distance of approximately 30 metres offshore and oil was extracted from the shallow layers.⁹

In the former Soviet Union, similar activities in the 1920s continued in the Caspian Sea, where many technical methods and equipment for offshore oil exploration and production were developed and tested.¹⁰ However, until recently, offshore production was limited primarily to the Caspian Sea region (see Figure 1). Exploitation of the natural resources in the Caspian Sea is surrounded by many legal issues, such as the development rights, joint navigation rights, joint management of fisheries and environmental protection, as well as other issues relating to the use of the sea and exploitation of natural resources.¹¹

Today Russia is only at the very beginning of developing its hydrocarbon resources on the continental shelf. In the early 1990s, several large-scale oil and gas developments

commenced on the Russian shelf, after the Russian government put into effect a system of international auctions and tenders for the rights to explore and develop the offshore resources in the Sea of Okhotsk and the Bering Sea (see Figure 1). By 1995, over 100 exploratory wells had been drilled on the Russian continental shelf, including 65 wells in the Far Eastern region, and 35 in the West Arctic,¹² but the first oil from Russia’s continental shelf was produced in July 1999 under the umbrella of the Sakhalin-II project.¹³ Sakhalin-II is a mega project consisting of the development of Piltun-Astokhskoye and Lunskeye gas and oil fields (Figure 3). Together these two fields contain recoverable hydrocarbon volumes of over 150 million tonnes of crude oil and more than 500 billion cubic metres of natural gas.¹⁴

Phase I of the project involved the tow, modification and installation of the Molikpaq platform about 17 kilometres off Sakhalin Island in water at a depth of about 50 metres.¹⁵ Since 1999 the Molikpaq platform has produced over 70 million barrels of oil.¹⁶ Phase II of the project involves the construction and installation of PA-B and LUN-A production platforms, an onshore processing facility, an oil export terminal, Russia’s first ever liquefied natural gas (LNG) processing plant, and construction of an offshore and onshore pipeline network to connect all three platforms with the LNG plant.¹⁷ Following successful completion



of the LNG plant and installation of new platforms, the project is about to enter its main production stage. This project has special significance for Russia's oil and gas industry because it is the first offshore oil and gas development on the Russian continental shelf and it is the first offshore project being carried out under the production sharing arrangement with foreign companies.

In the Baltic Sea (Figure 1), the development of Kratsovskoye (D-6) offshore oil field is underway. Petroleum operations are being carried out 22 kilometres offshore from an offshore ice-resistant production complex, which is the first production platform in the Russian offshore industry that was designed and manufactured domestically.¹⁸ The first well under the D-6 project was drilled in 2004 and by 2007, crude production is expected to reach 600,000 tonnes per year, which will remain stable for seven years.¹⁹ Preparatory activities for offshore oil and gas production have been carried out in the Barents Sea as well. Even though access to offshore hydrocarbons in the Northern region requires substantial technological and financial investment because of extreme weather conditions,²⁰ recent actions of the oil industry and the Russian government indicate that in the near future many new

offshore drilling rigs and production complexes are going to appear on the Russian Northern continental shelf.²¹

Development of Environmental Regime for Offshore Petroleum Operations

Russia has already taken major steps towards improvement of its maritime, environmental, and natural resources regime.²² A number of important Russian statutes, particularly those relating to the Law of the Sea, were passed in the mid-1990s after *UNCLOS* entered into force.²³ In 1997, the governments of Russia, Norway, and the USA initiated a three-phase multilateral project called RUNARC, which stands for Russia-USA-Norway-Arctic Offshore Oil and Gas Regime. The purpose of this project is to assist Russia in establishing a new comprehensive safety and environmental regime for offshore oil and gas operations.²⁴

Phase 1 of the project is a Feasibility Study Report (FSR), which was completed in December 1998 and subsequently approved by the Russian government.²⁵ The FSR included a thorough analysis of Russia's regulatory regime for offshore oil and gas operations, identified its problems, and made recommendations for legislative and administrative reforms.²⁶ A number of deficiencies in the regulatory system were identified during the first phase of the project. The FSR concluded that the legal system was extremely complex and there was uncertainty about the legal status of certain regulations.²⁷ The regime exhibited numerous gaps, overlaps, and conflicts in the law due to poorly drafted provisions, mixed with outdated Soviet regulations.²⁸ Phase 2 of RUNARC, which was initiated in August 1999 and completed in December 2000, involved initial drafting of necessary legal and technical regulations for offshore operations, and proposed further legislative amendments.²⁹ Phase 3 of the project is concerned with transitional implementation of the new regulatory regime.³⁰ Since the commencement of RUNARC a number of administrative and legislative changes have occurred in Russia, resulting in improvements to environmental regulation for the Russian offshore energy sector,³¹ but not all of these changes are necessarily attributable to

Figure 3 Diagram of Sakhalin-2 Project

Source: Sakhalin Energy Investment Company, September 2005

RUNARC. The following section examines Russia's federal regulatory regime.

New Environmental Regime for the Russian Offshore Industry

The main components of the ecological regime in Russia include a legislative base, an institutional framework, compliance control and supervision, enforcement instruments, and information resources.³² Responsibility for ensuring and maintaining a favourable environment starts at the highest level of executive authority, the President of the Russian Federation. Under Article 80(2) of the *Russian Constitution*,³³ the President is a guarantor of citizens' rights and freedoms, including

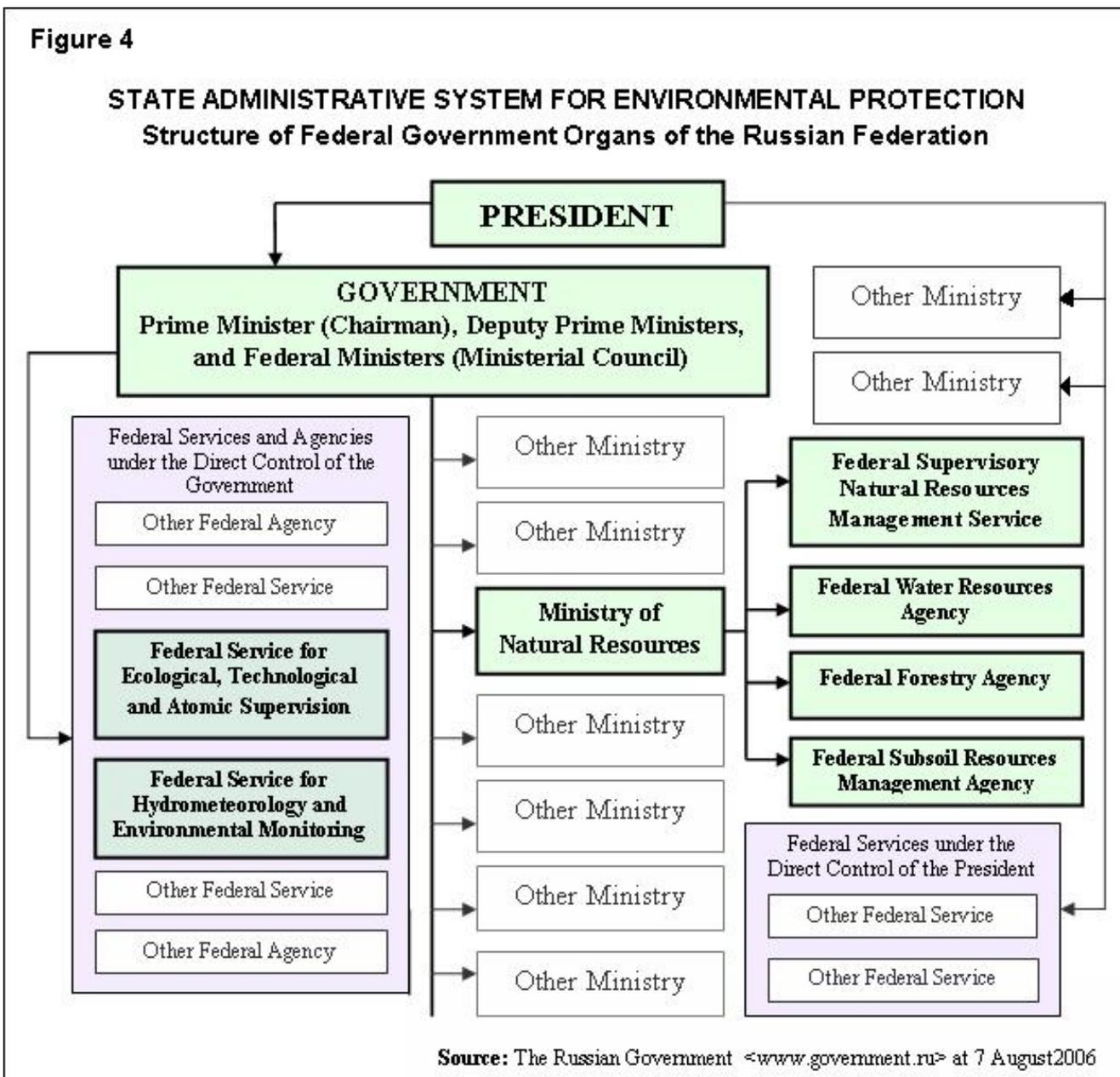
ecological rights and freedoms. The President fulfils his constitutional guarantees by personally engaging in certain matters of ecological importance, but most of the time he does it through various federal administrative authorities with roles in environmental protection. These authorities perform their functions in accordance with the President's directions and in conformity with environmental legislation.

Traditionally, the environmental administrative framework in Russia is regulated at two levels, a 'general' and a 'special' ecological administration.³⁴ Russian environmental legislation may also be categorised as 'general' and 'special'. General environmental legislation applies to all environmental matters and provides the basis for ecological regulation and compliance. Special environmental legislation, on the other hand, tends to regulate a particular type of activity such as the disposal of industrial waste, or a particular element of nature, for instance, the air. Legislation that addresses marine pollution from offshore operations will be examined later in this section, but at this stage it is necessary to discuss the administrative system in Russia.

Administrative Framework

The current structure of the Russian federal executive government is based on a 'three-element' concept, implemented during administrative reforms of the government.³⁵ This 'three-element' system involves division of administrative functions and responsibilities between three categories of government organs – Federal Ministries, Federal Services, and Federal Agencies. In addition, this system effectively establishes three main levels of subordination – first to the President, secondly to the Government,³⁶ and thirdly to the Minister.³⁷

In this ministerial arrangement, Federal Ministries, Federal Services, and Federal Agencies have different functions and powers even though they work in the same field.³⁸ The majority of the Federal Services and the Federal Agencies function under ministerial authority; however, there are a number of Federal Services and Federal Agencies that operate under the



direct control of either the President or the Government, and therefore function independently from the Federal Ministries, and outside ministerial authority.³⁹ In other words, these government organs are not coordinated or controlled by any Ministry (Figure 4).

As mentioned above, federal authorities involved in matters of environmental conservation may be categorised as ‘general’ and ‘special’. Federal government organs of the ‘general ecological administration’ are the President and the Government.⁴⁰ The main federal body of ‘special ecological administration’ is the Ministry of Natural Resources, which implements and administers state policies on environmental protection and the use of

natural resources,⁴¹ and coordinates and controls the activities of four subordinate bodies, two of which have functions related to protection of the marine environment.

The first of these is the Federal Water Resources Agency, which performs functions primarily related to federal property management in the area of water resources, in addition to conducting examination of certain project documentation for construction and reconstruction of utilities and other facilities having an impact on the condition of water bodies.⁴² The second is the Federal Supervisory Natural Resources Management Service, which performs functions related to the use and conservation of water bodies, conservation of

mineral and living resources on the continental shelf, and the observance of Russian and international law on protection of the marine environment and natural resources of the sea.⁴³ Environmental compliance control in Russia is carried out by the Federal Service for Ecological, Technological and Atomic Supervision.⁴⁴ Environmental and pollution monitoring is conducted by the Federal Service for Hydrometeorology and Environmental Monitoring.⁴⁵

It is not an intention of this article to discuss the specific functions of these federal government authorities. Instead, it may be appropriate to identify and analyse some of the statutes applicable to conservation of the marine environment and the offshore oil and gas industry. However, a few words describing the relevant constitutional background are first necessary.

Constitution of the Russian Federation

The *Russian Constitution* defines general principles for the use of natural resources and conservation of the environment. The main environmental principle of the Constitution is that everyone has a right to a favourable environment, reliable information about its condition, and a right to be compensated for damage caused to a person's health or property as a result of environmental violations.⁴⁶ In addition, the Constitution imposes on everyone a general duty to preserve nature and the environment and to treat natural resources carefully.⁴⁷

Federal Law on Environmental Protection 2002

The *Federal Law on Environmental Protection 2002*⁴⁸ is one of the general environmental statutes. It is the most important piece of environmental legislation in Russia as it forms the basis of the whole environmental regime. This legislative Act lays down general environmental procedures, outlines the government's environmental policy objectives,⁴⁹ defines the powers of the government authorities,⁵⁰ and sets general principles of conservation of nature and its ecosystems.⁵¹ The Act applies to all environmental matters generally, but it also has a specific list of the

objects of environmental protection, and refers to the continental shelf and exclusive economic zone as elements requiring special protection.⁵² Although this legislation is general in nature, it specifically addresses requirements for the oil and gas industry,⁵³ and for management and disposal of industrial and domestic waste.⁵⁴ It provides that all petroleum operations, including construction of objects engaged in exploration, production, storage, transport, and sale of oil and gas, must be carried out in accordance with the law and established environmental regulations.⁵⁵

Federal Law on Environmental Review 1995

The *Federal Law on Environmental Review 1995*⁵⁶ is another very important environmental statute. It establishes a comprehensive regulatory framework for environmental review and environmental impact assessments. The Act gives effect to the constitutional right of individuals to enjoy a favourable environment and have access to reliable information about adverse environmental impacts caused by various economic, industrial or other activities.⁵⁷ Amongst other areas, the Act covers financial aspects of environmental review,⁵⁸ international aspects and principles of environmental review,⁵⁹ and addresses liability for contraventions of laws on environmental review, including criminal liability for serious contraventions.⁶⁰

The Water Code 1995

The *Water Code of the Russian Federation 1995*⁶¹ is one of the largest Russian statutes that deal with conservation of the environment. It regulates the use and conservation of bodies of water with a general goal to maintain water in good condition, from an ecological point of view.⁶² The Code contains a great number of environmental provisions including provisions relating to the exploitation of natural resources.⁶³ It covers many different matters such as the adoption of pollution prevention measures,⁶⁴ acquisition of licences for the use of water bodies,⁶⁵ and prohibition on dumping, subject to limited exceptions.⁶⁶ Liability for contraventions of water law, as well as for pollution of water bodies is also addressed in the Code.⁶⁷ It is important to note that the Water

Code only applies offshore to the internal seas and the territorial sea, so that its application does not extend to the contiguous zone, the exclusive economic zone, or waters above the extended continental shelf.⁶⁸

Federal Law on the Continental Shelf 1995

The *Federal Law on the Continental Shelf 1995*⁶⁹ was the first statute in Russia through which international law of the sea principles were implemented into the domestic legal system. It covers many different aspects relating to the continental shelf. The Act provides that Russia has exclusive jurisdiction to construct artificial islands and offshore installations on its continental shelf, exercise control over such installations, and regulate activities such as exploration and exploitation of natural resources of the seabed and its subsoil.⁷⁰ This legislative Act is probably one of the statutes most relevant to the offshore petroleum industry, as it addresses natural resources exploration and exploitation in some detail. This statute also has a number of provisions dealing with protection of the marine environment. For example, the Act provides that all activities on the continental shelf are subject to environmental review, and no activity can be carried out unless it successfully passes the 'state environmental review'.⁷¹

Under the Act, portions of the continental shelf area may be allocated for exploitation of non-living natural resources,⁷² and potential users of the continental shelf are required to take appropriate technological, sanitary, and safety measures, and comply with legislation on protection of the marine environment.⁷³ The Act also sets out requirements and procedures for obtaining permits to construct and operate offshore installations,⁷⁴ pipelines,⁷⁵ and other structures that may be used in exploration and exploitation of non-living resources. The right to use and exploit the continental shelf is granted on the basis of payment.⁷⁶ This requirement represents economic aspects of environmental regulation. Other measures of conservation of the marine environment addressed in this legislation include environmental control and environmental monitoring.⁷⁷ Finally, the Act contains provisions dealing with liability for

contraventions of this law,⁷⁸ and principles of dispute resolution.⁷⁹

Federal Law on the Exclusive Economic Zone 1998

The *Federal Law on the Exclusive Economic Zone 1998*⁸⁰ has a fairly similar set of provisions to the *Federal Law on the Continental Shelf 1995*; however, this statute mainly deals with exploitation and protection of living resources, as well as conservation of the marine environment of the exclusive economic zone (EEZ). The Act defines concepts such as 'harmful substances' and 'marine pollution'.⁸¹ The Act recognises that certain areas of the EEZ require special measures of environmental protection against oil pollution from ships, other liquid noxious substances, or dumping of waste, and provides that a different set of regulations may apply to those areas.⁸² Federal government organs have competence to set the regulatory regime in zones in the state of emergency, or areas of ecological disaster.⁸³ The Act also requires licensed users of the EEZ, such as those engaged in exploitation of living resources, to report to the appropriate authority visible oil spills on the surface of the water.⁸⁴ Even though this legislation is primarily concerned with protection of living resources, it still applies to the offshore industry because offshore oil and gas activities may have adverse impacts on the marine environment of the EEZ and its living resources.

Federal Law on the Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998

The *Federal Law on Internal Waters, Territorial Sea and the Contiguous Zone 1998*⁸⁵ gives effect to some of the provisions of *UNCLOS*, and outlines the requirements for the protection and preservation of the marine environment and natural resources in the aquatic sovereign territories of the Russian Federation.⁸⁶ The Act provides that all activities relating to conservation of the marine environment and natural resources of internal marine waters and the territorial sea shall be conducted in accordance with the legislation of the Russian Federation.⁸⁷ The marine environment of internal marine waters and the territorial sea shall be maintained in a condition

which complies with the environmental regulations through the establishment and implementation of norms for maximum permissible impact on the marine environment.⁸⁸ The Act also specifies procedures for conducting state environmental reviews, environmental control and monitoring, as well as requirements for waste burial, discharge of pollutants in the territorial sea and internal marine waters.⁸⁹

Federal Law on Subsoil Resources 1992

The *Federal Law on Subsoil Resources 1992*⁹⁰ regulates the use and protection of subsoil resources. It establishes a legal framework and sets out detailed procedures and requirements for all mining operations including petroleum exploration and production on the continental shelf.⁹¹ Amongst other things, the Act regulates licensing procedures, bidding arrangements for the right to exploit natural resources, and payments for the use of subsoil.⁹² It also sets out time-frames for utilisation of projects,⁹³ rights and obligations of the users of natural resources,⁹⁴ powers of the federal government organs,⁹⁵ requirements for the rational use and protection of subsoil resources,⁹⁶ and the role of the government in regulation and coordination of natural resources exploitation.⁹⁷

The Act contains a number of environmental provisions. For example, one of the licensing conditions includes a requirement to comply with applicable environmental standards.⁹⁸ Similarly, one of the criteria used in assessing bids and proposals is the effectiveness of measures of environmental protection. Safety requirements for industrial activities relating to the exploration and exploitation of natural resources are covered in this statute.⁹⁹ The Act prohibits the use and operation of equipment that poses a risk to human life.¹⁰⁰ Authorised government organs may carry out site inspections or conduct certain supervisory activities for the purpose of ensuring compliance with safety requirements and regulations.¹⁰¹ Under the Act, certain limitations and in some cases restrictions may be imposed on the use or exploitation of natural resources in order to ensure adequate levels of public safety and environmental conservation.¹⁰² This legislation also deals with the ‘state

environmental review’ and specifies its main principles and procedures applicable to the exploration and exploitation of natural resources.¹⁰³ Special protection is given to the areas containing subsoil resources, which have cultural or scientific significance.¹⁰⁴ The Act also addresses the decommissioning and abandonment of exploration and production sites, and requires the doing of everything reasonably necessary to ensure that abandoned sites do not pose any risks to the environment or human life, and at the same time comply with best industry practices for the use and conservation of natural resources.¹⁰⁵ Finally, the Act deals with liability for contraventions of the law, and compensation for any damage arising from the use of natural resources.¹⁰⁶

Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997

The *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997*¹⁰⁷ establishes a system of special requirements relating to extended safety measures and emergency procedures for ‘hazardous industrial facilities’. The Act does not specifically define the term ‘hazardous facility’, but instead refers to Annex I,¹⁰⁸ which sets out the criteria that may be used to determine whether a particular facility is subject to the Act. Under Annex I, offshore oil and gas production platforms would be considered hazardous because their operation often involves flammable substances such as gases or other substances that may cause harm to the environment.¹⁰⁹ The Act provides that all hazardous facilities must be registered with the government.¹¹⁰ Under this Act, all technical equipment used in industrial facilities is subject to industrial safety certification.¹¹¹ Other requirements imposed by the Act include a requirement for an industrial safety review,¹¹² or the requirement to have adequate insurance cover that would cover any potential damage resulting from the operation of a hazardous facility.¹¹³ This legislation is focused on prevention of emergencies at potentially hazardous industrial facilities and ensuring that organisations operating such hazardous industrial facilities are prepared to contain and mitigate any such emergencies.¹¹⁴

Federal Law on Industrial and Domestic Waste 1998

The *Federal Law on Industrial and Domestic Waste 1998*¹¹⁵ regulates the disposal and handling of waste, particularly industrial waste that may have potential adverse effects on the environment.¹¹⁶ The Act sets out government policy objectives with respect to handling and disposal of waste and powers of federal, regional and local government organs in the field of waste handling.¹¹⁷ The Act establishes ownership rights for waste and imposes requirements for waste handling,¹¹⁸ including procedures for conducting environmental monitoring,¹¹⁹ reporting procedures, prevention of accidents, responsibilities of personnel authorised to handle hazardous waste, requirements for relevant personnel training,¹²⁰ requirements for waste reporting and accounting procedures,¹²¹ and requirements for monitoring of waste handling.

The Criminal Code

Chapter 26 of the *Criminal Code of the Russian Federation*¹²² deals with environmental crimes and represents one of the enforcement mechanisms for ecological protection. The Code provides that contraventions of environmental regulations relating to the construction and operation of industrial facilities, use and disposal of hazardous materials, and exploitation of subsoil resources may attract criminal liability.¹²³ The application of the Criminal Code extends beyond the territorial sea of the Russian Federation, and criminal offences committed on the continental shelf and in the EEZ are subject to the Code's provisions.¹²⁴ The Code imposes criminal penalties for marine pollution resulting from land-based sources and also for breaches of safety rules on construction of artificial structures at sea.¹²⁵ Similarly, it is a criminal offence to unlawfully construct offshore platforms on the continental shelf, establish unauthorised safety zones around them, or contravene regulations on the operation and removal of such structures.¹²⁶ Exploration and exploitation of natural resources on the continental shelf or in the EEZ without proper permit may also attract criminal liability.¹²⁷

Other Statutes, Normative Acts, and Regulations

Environmental provisions may also be found in a number of other statutes that also have some relevance to offshore oil and gas activities. These include *Federal Law on Specially Protected Territories 1995*,¹²⁸ the *Administrative Offences Code 2001*,¹²⁹ the *Federal Law on Payment for Water Bodies Use 1998*,¹³⁰ the *Federal Law on Protection of Atmospheric Air 1999*,¹³¹ the *Federal Law on Protection of the Population and Territories against Natural and Manmade Emergencies 1994*,¹³² the *Federal Law on Protection of Wildlife 1995*,¹³³ and the *Federal Law on Technical Regulation 2002*.¹³⁴ In addition, the Russian regulatory regime contains a large number of subordinate laws and normative regulations on environmental matters including presidential decrees, government resolutions, ministerial directions, and regulations produced by various government authorities. However, these documents will not be discussed in this article.

Summary and Evaluation of the Russian Regime

The current environmental regime in Russia represents an outstanding contrast to the legal system of the former Soviet Union. Recent legislative enactments demonstrate an improvement in the Russian environmental regulation. The current framework contains a number of important devices through which environmental protection is organised in Russia, such as a quantitative assessment of impacts, environmental review, a principle of sustainable development, a system of fees and payments for the use of nature, licensing arrangements, and other enforcement and compliance measures. The Russian legislation addresses environmental conservation reasonably well and attempts to provide an appropriate balance between the use of natural resources and environmental conservation.

There is currently no statute in the Russian legal regime that deals exclusively with matters relating to offshore petroleum exploration and production. This activity is largely governed by the *Federal Law on Subsurface Resources 1992*, which applies to all types of mining and

exploitation of subsoil resources. Pollution aspects of the offshore oil and gas industry are addressed to some extent in a number of different statutes, but most of the specific provisions on the prevention of marine pollution from offshore activities may be found in the *Federal Law on the Continental Shelf of the Russian Federation 1995*. It appears that current federal legislation in Russia does not adequately address environmental and other aspects of offshore oil and gas operations.

Responsibility for ecological protection is spread between different administrative authorities and sometimes duplicated. Arguably, too much is left for discretionary decisions by the federal as well as regional and local government authorities.¹³⁵ The regulatory regime is often criticised for its numerous subordinate laws and normative regulations produced by the executive government bodies, but these documents form an important part of environmental law in Russia, and sometimes act as transitional provisions.¹³⁶

For the most part, Russian ecological legislation appears to be compliant with international law, but in some areas differences do exist. Many of the *UNCLOS* provisions are reflected in the *Federal Law on the Continental Shelf 1995* and the *Federal Law on the Exclusive Economic Zone 1998*. Statutes such as the *Federal Law on Environmental Protection 2002* and the *Federal Law on Environmental Review 1995* also show consistency with international principles of environmental conservation, which demonstrates Russia's commitment to its international obligations. It is also important to note that, principles of customary international law and provisions of international agreements to which Russia is a signatory, form part of Russia's legal system, and in the event of inconsistency with the Russian law, international principles prevail.¹³⁷

In general, Russian ecological legislation is becoming clearer and more consistent, which provides a certain degree of stability in the regulatory regime.¹³⁸ However, the current system for environmental protection is based upon the 'end of pipe' approach, which involves strict enforcement measures combined with low rates of non-compliance administrative fines.¹³⁹

This approach is not very effective and it does not stimulate prevention of environmental pollution leading to insufficient environmental compliance. There is definitely room for improvement, and Russia should continue to develop its environmental regime in many different areas including the regulation of marine pollution from the offshore oil and gas industry.

Recent Developments and Future Trends in the Russian Environmental Regime

New ecological policy based on preventive principles is now emerging in Russia, which will change environmental enforcement and compliance systems from an 'end of pipe' approach to a new preventive strategy regime.¹⁴⁰ Currently, the new *Draft Federal Law on the Common Technical Regulations for Ecological Safety* is under construction, which is expected to be the foundation for the new system of environmental legislation, stipulating the norms for an improved system of environmental enforcement and compliance based on pollution prevention principles. At the same time, Russia is preparing a *Draft Federal Law on the Environmental Payments*, which stipulates new principles for economic incentives and targeted financial support actions.¹⁴¹ This new approach is directed towards reducing harmful effects on the environment by stimulating investments in pollution prevention.

Some critics argue that there is a real possibility of 'de-ecologisation' of the Russian environmental regime, which means that the government is losing interest in solving contemporary ecological problems, and does not put enough effort into improvement of the environmental regulatory regime or deregulates certain environmental aspects.¹⁴² For example, in July 2006 *Draft Law No 317064-4* was submitted to the State Duma (federal legislature), which proposes to abolish a requirement for a compulsory environmental impact assessment (EIA) of all town planning and urban land developments, and also repeal provisions on EIA from the *Federal Law on the Continental Shelf 1995* and the *Federal Law on the Exclusive Economic Zone 1998*.¹⁴³ Greenpeace expressed serious concerns about the proposed legislation and particularly stated that

'... it was proposed to exclude the article about obligatory state environmental review from the Federal Laws that have nothing to do with housing construction'. An alternative view to the Greenpeace position is that, as far as it relates to the continental shelf and the EEZ legislation, these proposed legislative amendments are unlikely to have any significant impact because the *Federal Law on Environmental Review 1995* will continue to apply and require an environmental impact assessment for activities on the continental shelf and in the EEZ. Upon examination of the Russian ecological legislative framework, it is evident that EIA provisions are present in almost every environmental statute. This represents a duplication of the law, which can be avoided by removing these provisions from 'special' environmental statutes and regulating EIA through 'general' legislation such as the *Federal Law on Environmental Review 1995*.¹⁴⁴

There is also a tendency to codify environmental legislation, which would effectively merge all or most of the environmental statutes into one piece of legislation. The Russian government has already begun work on the development of the future *Draft Ecological Code*. The main objectives of this legislative project are to establish more efficient and effective government regulation in the field of environmental protection and ecological security, fill existing gaps in the law, and to harmonise as much as possible the country's environmental regime with international law and international standards of environmental conservation.¹⁴⁵ Protection of the environment from adverse impacts resulting from the use and exploitation of subsoil resources is one of the areas of ecological regulation that will be covered by the *Code* in some detail. The intention is to address subsoil resources mining (including offshore oil and gas mining) in more detail and spell out specific requirements for certain aspects of subsoil resources exploitation taking into account differences in physical and economic characteristics of various types of subsoil resources.¹⁴⁶ The *Code* will also provide economic incentives such as tax concessions for compliance with environmental regulations and set up a system of rewards for reporting of contraventions of environmental law.¹⁴⁷ Overall,

the proposed *Code* hopefully will result in a decrease of administrative costs and improvement of the whole environmental regime.

Conclusions

As discussed in Part I, there is no single international document that regulates marine pollution arising from offshore petroleum operations. In the international context, marine pollution from offshore installations and other operational aspects of offshore units is regulated by provisions that are spread across various conventions on marine pollution. There is a need for a comprehensive international convention on offshore units, and strong support for any further work on the development of such convention. The adoption of a world-wide convention would create a universal regulatory regime for offshore petroleum operations and particularly for offshore units, which would ensure a greater degree of uniformity in international regulation of the offshore energy sector, clarify any existing uncertainties or ambiguities, and establish new international legal principles and standards that would address those aspects of the offshore petroleum industry. At the same time, regional cooperation and the development of regional instruments should not be discouraged because the ultimate goal is, as much as possible, to eliminate pollution of the marine environment through effective regulation. This is best done at international level, leading to greater improvements in offshore technology and achieving zero discharges during offshore exploration and production activities.

Russia is a party to only a few conventions that address pollution from the offshore petroleum industry. A comprehensive international convention may be of particular benefit to countries such as Russia where offshore oil and gas operations are on the rise and national offshore petroleum legislation is not very sophisticated. In any case, it is critical for Russia to continue developing and improving its environmental legislation in the area of offshore petroleum exploration and production because the potential negative effects on the marine environment are alarming, considering the

increasing number of offshore projects on the Russian continental shelf. However, the existing legal system for environmental protection does provide a solid foundation and does realistically allow for further legislative developments directed towards a less prescriptive and more goal-oriented regulatory framework. With a focus on preventive principles and continuous implementation of integrated environmental strategies for strengthening environmental compliance, the protection of the Russian marine environment from the offshore oil and gas industry could be quite adequate.

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ENDNOTES

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- ¹⁴ Sakhalin Energy Investment Company, <<http://www.sakhalinenergy.com/en/media.asp>> viewed 10 June 2005.
- ¹⁵ *ibid.*
- ¹⁶ Sakhalin Energy Investment Company, <http://www.sakhalinenergy.com/en/media.asp?p=media_page&itmID=170> viewed 7 August 2006.
- ¹⁷ Sakhalin Energy Investment Company Ltd, Project Alternatives: Lunskeye Platform Site Selection Report, 2003, p. 2.
- ¹⁸ SPG Media Limited, *Lukoil's Kravtsovskoye Oil Field Ice-Resistant Stationary Platform*, 2006, Offshore Technology, <<http://www.offshore-technology.com/projects/Kravtsovskoye/>> viewed 10 August 2006.
- ¹⁹ *ibid.*
- ²⁰ The Energy Exchange Ltd, *Russia Offshore 2006*, 2006 <http://www.theenergyexchange.co.uk/PDF/rusoff_Prog3.11.05.pdf> viewed 10 August 2006.
- ²¹ Patin, (1999), op. cit., p. 1.
- ²² OECD, (2002), op. cit., p. 244.
- ²³ *Federal Law on the Continental Shelf of the Russian Federation 1995 (RF); Federal Law on the Exclusive Economic Zone 1998 (RF); Federal Law on Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998 (RF)*.
- ²⁴ US Minerals Management Service, *International Activities Program*, <<http://www.mms.gov/international/InternationalBrochure.htm>> viewed 28 July 2006.
- ²⁵ US Minerals Management Service, *Summary Report on RUNARC*, 2001.
- ²⁶ CPPI, op. cit., pp. 125-138.
- ²⁷ OECD (2002), p. 260.
- ²⁸ *ibid.*
- ²⁹ CPPI, *Report on Results of Phase II of RUNARC*, 2000, Norwegian Petroleum Directorate <<http://www.npd.no/NR/rdonlyres/9B7C2723-9AC1-4A6C-9D3D-E7151B6914AB/0/ReportphaseIIEng.htm>> viewed 30 July 2006.
- ³⁰ US Minerals Management Service (2006), op. cit.
- ³¹ CPPI (2000), op. cit.
- ³² V Sapozhnikova, 'Environmental Protection in Russia: The Evolution From Strict Enforcement Measures and Environmental Compliance Control to New Combined Approaches Based Upon Preventive Strategies' (article presented at the Seventh International Conference on Environmental Compliance and Enforcement, Marrakech, Morocco, 9-15 April 2005) p. 183, pp. 183-84 <<http://www.inece.org/conference/7/vol11/Sapozhnikova.pdf>> viewed 7 August 2006.
- ³³ *Constitution of the Russian Federation 1993* ('*Russian Constitution*'), amended in 1996 and 2001.
- ³⁴ O Dubovik, L Kremer & G Lubbe-Wolff, *Russian Jurisprudence Education: Ecological Law*, 2005, p. 404.
- ³⁵ *Decree of the President of the Russian Federation on the System and Structure of the Federal Executive Organs*, No. 314, dated 9 March 2004.
- ³⁶ The term 'Government' is always used when referring to the Russian Federal Executive Government, which is a federal organ of executive authority with a similar meaning as the term 'Cabinet' or 'Executive Council' in the Australian government system. Pursuant to Article 110(2) of the *Russian Constitution*, the 'Government' comprises the following: the Chairman (also known as the Prime Minister), the Deputies of the Chairman, and the Ministerial Council (also known as the Cabinet of Ministers). See also Article 6 of the *Federal Constitutional Law on the Government of the Russian Federation 1997* (RF) No 2-FKZ enacted 17 December 1997.
- ³⁷ Dubovik, Kremer & Lubbe-Wolff, op. cit., p. 410.
- ³⁸ Federal Ministries are primarily responsible for policy-making and development of normative regulations in their respective fields. In addition, the Federal Ministries coordinate and control activities of the

- Federal Services and the Federal Agencies operating under their authority. The Federal Services perform controlling and supervisory functions in the prescribed field. The Federal Agencies provide government services to the public and manage government property. (*Decree of the President of the Russian Federation on the System and Structure of the Federal Executive Organs*, No. 314, dated 9 March 2004, paras. 3-5).
- ³⁹ For example, the Federal Customs Service, the Federal Agency for Nuclear Energy, and the Federal Space Agency function under the direct control of the Government. Similarly, the Federal Service for External Intelligence and the Federal Security Service function under the direct control of the President.
- ⁴⁰ The roles of the President and the Government in ecological administration involve the making of executive ecological directions and normative regulations, general ecological policy, large-scale strategic ecological planning, and maintaining ecological safety. In special circumstances they may perform more specific roles.
- ⁴¹ *Resolution of the Government of the Russian Federation*, No. 160, dated 6 April 2004, <http://www.government.ru/data/news_text.html?he_id=103&news_id=13972> viewed 29 July 2006.
- ⁴² *Regulations on the Federal Water Resources Agency 2004*, approved by the *Resolution of the Government of the Russian Federation*, No. 282, dated 16 June 2004, <<http://www.mnr.gov.ru/part/?pid=401>> viewed 28 July 2006.
- ⁴³ *Regulations on the Federal Supervisory Natural Resources Management Service 2004*, approved by the *Resolution of the Government of the Russian Federation*, No. 400, dated 30 July 2004, <<http://www.mnr.gov.ru/part/?pid=402>> viewed 28 July 2006.
- ⁴⁴ *Regulations on the Federal Service for Ecological, Technological, and Atomic Supervision 2004*, approved by the *Resolution of the Government of the Russian Federation*, No. 401, dated 30 July 2004, <<http://www.gosnadzor.ru/slugba/slugba.html>> viewed 30 July 2006.
- ⁴⁵ *Resolution of the Government of the Russian Federation*, No. 372, dated 23 July 2004.
- ⁴⁶ *Russian Constitution*, art 42.
- ⁴⁷ *Russian Constitution*, art 58.
- ⁴⁸ *Federal Law on Environmental Protection 2002* (RF), No. 7-FZ, enacted 10 January 2002.
- ⁴⁹ *Federal Law on Environmental Protection 2002* (RF), preamble.
- ⁵⁰ *Federal Law on Environmental Protection 2002* (RF), arts 5, 6, 7.
- ⁵¹ *Federal Law on Environmental Protection 2002* (RF), art 3.
- ⁵² *Federal Law on Environmental Protection 2002* (RF), art 4(3).
- ⁵³ *Federal Law on Environmental Protection 2002* (RF), art 46.
- ⁵⁴ *Federal Law on Environmental Protection 2002* (RF), art 51.
- ⁵⁵ *Federal Law on Environmental Protection 2002* (RF), art 46(1).
- ⁵⁶ *Federal Law on Environmental Review 1995* (RF), No. 174-FZ, enacted 23 November 1995.
- ⁵⁷ *Federal Law on Environmental Review 1995* (RF), preamble.
- ⁵⁸ *Federal Law on Environmental Review 1995* (RF), arts 28, 29.
- ⁵⁹ *Federal Law on Environmental Review 1995* (RF), art 36. This Article provides that in the event of inconsistency with principles of international agreements on environmental review to which Russia is a party, provisions of the international agreement prevail over provisions of this Act.
- ⁶⁰ *Federal Law on Environmental Review 1995* (RF), arts 30-34.
- ⁶¹ *The Water Code of the Russian Federation 1995* (RF), No. 167-FZ, enacted 16 November 1995.
- ⁶² *The Water Code of the Russian Federation 1995* (RF), arts 85-122.
- ⁶³ *The Water Code of the Russian Federation 1995* (RF), arts 85, 99, 107, 108, 114, 145.
- ⁶⁴ *The Water Code of the Russian Federation 1995* (RF), arts 94, 97, 106, 107, 110, 122, 137, 138.
- ⁶⁵ *The Water Code of the Russian Federation 1995* (RF), art 83.
- ⁶⁶ *The Water Code of the Russian Federation 1995* (RF), arts 95, 96, 97, 98, 104, 105, 106, 107, 109, 110, 144.
- ⁶⁷ *The Water Code of the Russian Federation 1995* (RF), arts 130-132.
- ⁶⁸ *The Water Code of the Russian Federation 1995* (RF), art 8.
- ⁶⁹ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), No. 187-FZ, enacted 30 November 1995.
- ⁷⁰ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 5.
- ⁷¹ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 31.
- ⁷² *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 7.
- ⁷³ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 8.
- ⁷⁴ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), arts 17(9), 17(10), 17(11), 19, 20.
- ⁷⁵ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 22.
- ⁷⁶ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 40.
- ⁷⁷ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), arts 32, 33.
- ⁷⁸ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 46.
- ⁷⁹ *Federal Law on the Continental Shelf of the Russian Federation 1995* (RF), art 47.
- ⁸⁰ *Federal Law on the Exclusive Economic Zone 1998* (RF), No. 191-FZ, enacted 17 December 1998.
- ⁸¹ *Federal Law on the Exclusive Economic Zone 1998* (RF), art 4.
- ⁸² *Federal Law on the Exclusive Economic Zone 1998* (RF), art 33.
- ⁸³ *Federal Law on the Exclusive Economic Zone 1998* (RF), art 7(23).
- ⁸⁴ *Federal Law on the Exclusive Economic Zone 1998* (RF), art 12(2).

- ⁸⁵ *Federal Law on Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998* (RF), No. 155-FZ, enacted 31 July 1998.
- ⁸⁶ *Federal Law on Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998* (RF), art 20.
- ⁸⁷ *Federal Law on Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998* (RF), art 32.
- ⁸⁸ *Federal Law on Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998* (RF), art 33.
- ⁸⁹ *Federal Law on Internal Marine Waters, Territorial Sea and the Contiguous Zone 1998* (RF), arts 34-37.
- ⁹⁰ *Federal Law on Subsoil Resources 1992* (RF), No. 2395-1, enacted 21 February 1992.
- ⁹¹ *Federal Law on Subsoil Resources 1992* (RF), preamble.
- ⁹² *Federal Law on Subsoil Resources 1992* (RF), arts 11, 15, 40-43.
- ⁹³ *Federal Law on Subsoil Resources 1992* (RF), art 10.
- ⁹⁴ *Federal Law on Subsoil Resources 1992* (RF), art 22.
- ⁹⁵ *Federal Law on Subsoil Resources 1992* (RF), art 3.
- ⁹⁶ *Federal Law on Subsoil Resources 1992* (RF), art 23.
- ⁹⁷ *Federal Law on Subsoil Resources 1992* (RF), part 4.
- ⁹⁸ *Federal Law on Subsoil Resources 1992* (RF), art 12(9).
- ⁹⁹ *Federal Law on Subsoil Resources 1992* (RF), art 24.
- ¹⁰⁰ *Federal Law on Subsoil Resources 1992* (RF), art 24.
- ¹⁰¹ *Federal Law on Subsoil Resources 1992* (RF), art 38.
- ¹⁰² *Federal Law on Subsoil Resources 1992* (RF), art 8.
- ¹⁰³ *Federal Law on Subsoil Resources 1992* (RF), art 29.
- ¹⁰⁴ *Federal Law on Subsoil Resources 1992* (RF), art 33.
- ¹⁰⁵ *Federal Law on Subsoil Resources 1992* (RF), art 26.
- ¹⁰⁶ *Federal Law on Subsoil Resources 1992* (RF), arts 49, 51.
- ¹⁰⁷ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), No. 116-FZ, enacted 21 July 1997.
- ¹⁰⁸ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), art 2(1).
- ¹⁰⁹ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), annex I (v), (j).
- ¹¹⁰ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), art 2(2).
- ¹¹¹ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), art 7.
- ¹¹² *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), arts 8, 9, 13.
- ¹¹³ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), art 9.
- ¹¹⁴ *Federal Law on Industrial Safety of Potentially Hazardous Industrial Facilities 1997* (RF), preamble, art 10.
- ¹¹⁵ *Federal Law on Industrial and Domestic Waste 1998* (RF), No. 89-FZ, enacted 24 June 1998.
- ¹¹⁶ *Federal Law on Industrial and Domestic Waste 1998* (RF), art 1.
- ¹¹⁷ *Federal Law on Industrial and Domestic Waste 1998* (RF), arts 5, 6, 8.
- ¹¹⁸ *Federal Law on Industrial and Domestic Waste 1998* (RF), art 14.
- ¹¹⁹ *Federal Law on Industrial and Domestic Waste 1998* (RF), arts 11, 12.
- ¹²⁰ *Federal Law on Industrial and Domestic Waste 1998* (RF), art 15.
- ¹²¹ *Federal Law on Industrial and Domestic Waste 1998* (RF), art 19.
- ¹²² *The Criminal Code of the Russian Federation 1996*, No. 63-FZ, enacted 13 June 1996.
- ¹²³ *The Criminal Code of the Russian Federation 1996*, arts 246, 247.
- ¹²⁴ *The Criminal Code of the Russian Federation 1996*, art 11(2).
- ¹²⁵ *The Criminal Code of the Russian Federation 1996*, art 242.
- ¹²⁶ *The Criminal Code of the Russian Federation 1996*, art 253(1).
- ¹²⁷ *The Criminal Code of the Russian Federation 1996*, art 253(2).
- ¹²⁸ *Federal Law on Specially Protected Territories 1995* (RF), No. 33-FZ, enacted 14 March 1995. The Act sets out requirements that apply to operational activities in specially protected territories and regulates the management, conservation and use of specially protected natural territories in order to protect their unique natural ecosystems, flora, and fauna.
- ¹²⁹ *The Administrative Offences Code of the Russian Federation 2001* (RF), No. 195-FZ, enacted 31 December 2001.
- ¹³⁰ *Federal Law on Payment for Water Bodies Use 1998* (RF), No. 71-FZ, enacted 6 June 1998. The Act establishes a system of payments for conducting activities, which potentially have adverse impacts on water bodies. Specifies paying organisations and recipients of payments, rates and amounts of payments, and payment procedures and schedules. This statute represents one of the economic mechanisms for ecological protection.
- ¹³¹ *Federal Law on Protection of Atmospheric Air 1999* (RF), No. 96-FZ, enacted 4 May 1999. The Act outlines general requirements for the protection of the atmospheric air during design and operation of structures and facilities. It also establishes the rules of setting air emission standards and limits for physical factors impact, and provides guidelines for conducting environmental control and monitoring.
- ¹³² *Federal Law on Protection of the Population and Territories against Natural and Manmade Emergencies 1994* (RF), No. 68-FZ, enacted 21 December 1994. This statute provides basic planning requirements for protection of population, land, water, air space, industrial facilities, and environment against emergencies.
- ¹³³ *Federal Law on Protection of Wildlife 1995* (RF), No. 52-FZ, enacted 24 April 1995. The Act establishes certain requirements for the protection of wildlife and sets out measures required for protection of wildlife habitat while operating industrial structures and facilities.
- ¹³⁴ *Federal Law on Technical Regulation 2002* (RF), No. 184-FZ, enacted 27 December 2002. The Act establishes a system of technical regulation and standardisation requirements of general consumption products, industrial processes, storage, and transportation of products and raw materials. The purpose of this Act is to ensure adequate safety of individuals and protection of the environment.
- ¹³⁵ OECD, (2002) op. cit., p. 243.
- ¹³⁶ Dubovik, Kremer & Lubbe-Wolff, op. cit., p. 341.

¹³⁷*Russian Constitution*, art 15(4).

¹³⁸OECD, (2002) op. cit., p. 260.

¹³⁹Sapozhnikova, op. cit., pp. 186.

¹⁴⁰ibid.

¹⁴¹Sapozhnikova, op. cit., pp. 186-87.

¹⁴²Dubovik, Kremer & Lubbe-Wolff, op. cit., p. 344.

¹⁴³Greenpeace, *Deputies Deprive the Country of Environmental Legislation*, 2006 <<http://www.greenpeace.org/russia/en/press/releases/deputies-deprive-the-country-o>> viewed 1 August 2006.

¹⁴⁴Dubovik, Kremer & Lubbe-Wolff, loc. cit.

¹⁴⁵Ministry of Natural Resources of the Russian Federation, *A Concept of the Federal Legislative Project – the Ecological Code of the Russian Federation*, 2006, <<http://www.mnr.gov.ru/part/?act=more&id=660&pid=33>> viewed 12 August 2006.

¹⁴⁶ibid.

¹⁴⁷Ministry of Natural Resources of the Russian Federation, *A Concept of the Federal Legislative Project – the Ecological Code of the Russian Federation*, 2006, <<http://www.mnr.gov.ru/part/?act=more&id=817&pid=431>> viewed 12 August 2006.

