



International Requirements for Occupational Health and Hygiene

Purpose

To:

- Specify international requirements adopted by Sakhalin Energy in relation to *Occupational Health and Hygiene*¹,
- Provide a detailed review of the requirements of certain standards in relation to Sakhalin Energy Assets and activities, provide comments regarding compliance, and identify any approved exceptions/deviations/derogations.

This document supports the Occupational Health and Hygiene Specialists to review compliance, maintain internal standards and specifications, and advise Managers on relevant requirements.

Who is this for?

- *Managers;*
- *Occupational Health and Hygiene Specialists.*

Requirements

Sakhalin Energy shall comply with the following conventions, standards and other requirements, except where exceptions/derogations are described in Table 1 and Table 2 below.

- IFC Environmental, Health, and Safety (EHS) Guidelines. General EHS Guidelines: Occupational Health and Safety (April 2007)
- IFC EHS Guidelines. Onshore Oil and Gas Development, April, 2007
- IFC EHS Guidelines. Offshore Oil and Gas Development, April, 2007
- IFC EHS Guidelines. LNG Facilities, April, 2007
- IFC Performance Standard 4. Community Health, Safety and Security. Clauses 1-11. (January 1, 2012).
- IFC Performance Standard 2. Labour and Working Conditions. Clause 23. (January 1, 2012)
- OGP Report 343 Managing health for field operations in oil & gas activities (May 2003).
- Occupational Exposure Limits (OEL) and Threshold Limit Values (TLV) defined in the American Conference of Governmental Industrial Hygienists (ACGIH 2011).
- International Agency for Research on Cancer (IARC) listed in IARC Monographs on the Evaluation of Carcinogenic Risks to Humans Series.
- ILO Code of Practice on HIV/AIDS and the world of work (2001).
- WHO (1999) Guidelines for Safe Management of Wastes from Health Care activities.
- EU Council Directive 89/391/EEC – (OSH "Framework Directive).
- EU Council Directive 92/104/EEC (On the minimum requirements for improving the safety and health protection of workers in surface and underground mineral-extracting industries).
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council (classification, labelling and packaging of substances and mixtures, amending and repealing).
- EU Council Directive 98/24/EC (Chemical Agents Directive).
- EU Council Directive 98/8/EC (Biocidal Products Directive).
- International Finance Corporation Hazardous Materials Management Guidelines (April 2007).

¹ Italicized terms in this document are included in the Sakhalin Energy HSSE Control Framework Glossary.

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- Royal Dutch Shell plc Group Standards for Health, Security, Safety, the Environment & Social Performance
- Royal Dutch Shell plc HSE Control Framework – Health manuals
- OGP Report 306. Substance abuse: guidelines for management.
- OGUK Medical Aspects of Fitness for Offshore Work: Guidance for Examining Physicians.
- OGP Report 397. A guide to Food and Water Safety.
- OGP Report 384. A roadmap to Health Risk Assessment in the oil and gas industry.
- OGP Report 396. Drilling fluids and health risk management.
- OGP Report 398. Health aspects of work in extreme climates.
- OGP Report 434-5. Human Factors in QRA.
- OGP Report 368. Human Factors - a means of improving HSE performance.
- OGP Report 412. Guidelines for the management of Naturally Occurring Radioactive Material (NORM) in the oil & gas industry.
- OGP Report 378. Managing workplace stress.
- OGP Report 392 Fatigue management in the workplace.
- OGP Report 374 HIV/AIDS management in the oil & gas industry.

Table 1: Requirements of Lenders

Sakhalin Energy Occupational Health and Hygiene Standard is a comprehensive document that covers the requirements of the Lenders through a number of Specifications being part of the Standard as follows:

- “Occupational Hygiene” Specification: describes the requirements to the management of toxic substances; hearing conservation, food and drinking water safety, Legionella, lighting, vibration, microclimate, electromagnetic fields, ionizing radiation, manual handling, ergonomics, Visual Display Units (VDU), organizational factors and stress.
- “Management of HIV/AIDS at Work” Specification: HIV Positive Employees, Employees with AIDS or AIDS related conditions, First aid, employees who travel on business to high risk countries, local community
- “Management of Drugs and Alcohol at Work” Specification: Prescribed medication, searches and testing, educational awareness.
- “Management of Smoking at Work” Specification: general requirements, educational awareness.
- “Medical Evaluations for Fitness to Work” Specification: medical evaluation, record keeping and certification, requirements for medical staff.
- “Medical Conditions of Contract” Specification: contractor’s medical examination requirements, requirements for contractor’s medical services and medical staff, emergency response, preventive measures, requirements for field camps, catering and sanitary monitoring.
- “Health Risk Assessment” Specification: requirements for health risk assessment implementation
- “Human Factors Engineering” Specification: requirements for human factors engineering screening.
- “Chemicals Management” Specification: requirements for chemicals selection, procurement, transport, use, storage and disposal.

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Table 2: Requirements of Adopted Standards

IFC General EHS Guidelines: Occupational Health and Safety (April, 2007)	Project Specification/ RF Requirements	Comments
<p>PHYSICAL FACTORS IN THE WORKPLACE Areas covered include: Lighting; Work Environment Temperature; Clean Eating Area; First aid; Potable Water Supply Welfare facilities; Personal Protective Equipment (PPE);</p>	<p>Sakhalin Energy Occupational Health and Hygiene Standard (0000-S-90-04-O-0270-00-E, Revision 06, August, 2012. Occupational Hygiene Specification) Russian Federation (RF) hygienic requirements on Adequate lighting, ventilation etc.: SanPin 2.1.2.2645-10 Sanitary-epidemiological requirements to living conditions in living buildings and accommodations. SanPin 2.2.4.548-96 Hygienic requirements to microclimate of industrial facilities; SanPin 2.2.1/2.1.1.1278-03 Hygienic requirements for Daylight, Artificial Lighting and Combined Lighting in housing and public buildings. SP 52.13330.2011 Day lighting and artificial lighting.</p>	<p>All issues are directly covered by Sakhalin Energy Occupational Health and Hygiene Standard and/or RF Hygienic Requirements. These include: Lighting; Work Environment Temperature; Clean Eating Area; First aid; Potable Water Supply Welfare facilities; Personal Protective Equipment (PPE). The Sakhalin Energy Standard takes into account the content of the RF hygienic requirements and international best practises.</p>
<p>NOISE – Occupational Heavy Industry – 85 dB(A) Maximum sound level – 110 dB(A) Open offices, control rooms, service counters or similar – 45-50 dB(A) Individual offices – 40-45 dB(A)</p>	<p>Noise Sakhalin Energy Occupational Health and Hygiene Standard (0000-S-90-04-O-0270-00-E, Revision 06, August 2012, Occupational Hygiene Specification) SN 2.2.4/2.1.8.562-96 Noise at Work Places, housing and public buildings and living areas Heavy Industry – 80 dB(A) Maximum sound level – 135 dB(A) Open offices, control rooms, service counters or similar –60-65 dB(A) Individual offices – 50 dB(A)</p>	<p>Partially comply (excluding open offices, control rooms, service counters or similar and Individual offices) Sakhalin Energy is currently reviewing the possibilities for improvement, after the office locations with excess noise are identified action plan will be developed Based on monitoring results the actual max sound level does not exceed 110. The limit of 110 will be also included in the new revision of Occupational Hygiene Specification.</p>
<p>VIBRATION Daily exposure limit values are based on ACGIH (2011).</p>	<p>Vibration Sakhalin Energy Occupational Health and Hygiene Standard (0000-S-90-04-O-0270-00-E, Revision 05, January 2011, Occupational Hygiene Specification). SN 2.2.4/2.1.8.566-96 “Industrial vibration, vibration in accommodation I and public buildings. Sakhalin Energy shall have adequate controls in place to protect staff from health effects of vibration. Any activity suspected of placing staff at a health risk due to vibrations shall be referred to a qualified Occupational Health Adviser for assessment.</p>	<p>Comply – excluding whole body vibration at the platforms and LNG trains. (Action Plan will be worked out on the basis of additional measurements in 2013)</p>
<p>ILLUMINATION Work area light intensity should be adequate for the general purpose of the location and type of activity and should be supplemented with dedicated workstation illumination as needed.</p>	<p>Lighting Sakhalin Energy Occupational Health and Hygiene Standard (0000-S-90-04-O-0270-00-E, Revision 05, January 2011, Occupational Hygiene Specification). SanPin 2.2.1/2.1.1.1278-03 Hygienic requirements for Daylight, Artificial Lighting and Combined Lighting in housing and public buildings.</p>	<p>Comply with RF requirements except workplaces for which Action Plan will be developed on the basis of additional measurements in 2013.</p>



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<p>Guidelines also provide minimum limits for illumination intensity for a range of locations/activities. Emergency light – 15 lux Outdoor no working areas – 20 lux Simple orientation and temporary visits – 50 lux Workspace with occasional visual tasks only – 100 lux Medium precision work – 200 lux Precision work, offices – <u>500 lux</u> High precision work – 1000-3000 lux</p>	<p>SP 52.13330.2011 Day lighting and artificial lighting Emergency light – 15 lux Outdoor no working areas – 20 lux Simple orientation and temporary visits – 50 lux Workspace with occasional visual tasks only – 100 lux Medium precision work – 200 lux Precision work, offices – <u>300-500 lux</u> High precision work – 1000-3000 lux</p>	
<p>TEMPERATURE Exposure to hot or cold working conditions in indoor or outdoor environments can result temperature stress-related injury or death. Use of PPE to protect against other occupational hazards can accentuate and aggravate heat-related illnesses. Extreme temperatures in permanent work environments should be avoided through implementation of engineering controls and ventilation. Where this is not possible such as during short-term outdoor work, temperature-related stress management procedures should be implemented.</p>	<p>RF Hygienic Requirements: SanPin 2.2.4.548-96 Hygienic requirements to microclimate of industrial facilities. Sakhalin Energy Occupational Health and Hygiene Standard. Occupational Hygiene Specification. Preventative Measures. Guidance document – “Health Aspects of Work in Extreme Climates within the E&P Industry: ‘The Cold’” (Report No. 6.65/270 Jan. 1998, The Oil Industry International Exploration and Production Forum)</p>	Comply
<p>HAZARDOUS MATERIALS The number of employees exposed or likely to become exposed must be kept at a minimum and the level of exposure maintained below internationally established or recognised exposure limits.</p>	<p>Sakhalin Energy: Occupational Health and Hygiene Standard. Occupational Hygiene Specification. Sakhalin Energy’s requirements for chemical management, including requirements for managing health hazards are also defined in the <i>Chemicals Management Specification</i> GOST 12.1.005-88 General hygienic requirements for ambient air at working area GN 2.2.5.1313-03 Chemical Factors of occupational Environment. Maximum permissible concentrations (MPCs) of hazardous substances in air at working area”. GN 2.2.5.2308-07 "Estimated safe exposure levels of hazardous substances in air at working area Section for Asbestos Management will be included in the new Revision of Occupational Hygiene Specification</p>	Comply
<p>BIOLOGICAL AGENTS The number of employees exposed or likely to become exposed must be kept at a minimum. Levels of exposure must be maintained below internationally established/recognised exposure limits.</p>	<p>Sakhalin Energy Occupational Health and Hygiene Standard. Occupational Hygiene Specification. Each biological hazard (infection) is governed by separate RF Regulations, Sanitary Monitoring Programs and health Risk Assessment.</p>	Comply
<p>IONIZING RADIATION Places of work involving occupational and/or natural exposure to ionizing radiation shall be established and operated in accordance with the, “International Basic Safety Standard for protection against Ionizing Radiation and for the Safety of Radiation Sources,” and its three inter-related Safety Guides.</p>	<p>SP 2.6.1.2800-10 Hygienic requirements to limit public exposure from natural radiation sources SP 2.6.1.1283-03 Radiation Safety for X-ray defectoscopy SP 2.6.1.1284-03 Radiation Safety for radionuclide defectoscopy SanPiN 2.6.1.2523-09 Radiation Safety Standards SP 2.6.1.2612-10 Basic sanitary rules for Radiation Safety Occupational Health and Hygiene Standard. Occupational Hygiene Specification Occupational Health and Hygiene Standard. Management of NORM Specification</p>	Comply

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<p>EXPOSURE TO SUNLIGHT</p>	<p>Exposure to sunlight is not a common occupational health concern on Sakhalin Island but Sakhalin Energy takes in to account the potential risks for health connected with sunlight exposure and provides PPE when required.</p>	
<p>ERGONOMICS, REPETITIVE MOTION, MANUAL HANDLING, VDU'S, STRESS</p>	<p>Ergonomics Sakhalin Energy manages ergonomics by implementing special awareness programs. Requirements to ergonomics are identified by RF regulations and Sakhalin Energy Occupational Hygiene Specification</p> <p>Manual handling Manual handling is regulated and recorded through Risk Assessment and requirements to manual handling are identified by RF regulations and Sakhalin Energy Occupational Hygiene Specification</p> <p>Visual Display Units (VDUs) Staff shall be given appropriate training to enable them to set up their workstation for optimal user comfort.</p> <p>Stress In the event that a person complains about work-related stress, identified control measures shall be implemented.</p>	<p>Comply</p>
<p>TRAINING The employer shall ensure that workers, prior to commencement of new assignments, have received adequate training and information enabling them to understand the hazards of work and to protect their health from hazardous ambient factors that may be present. The training must adequately cover: knowledge of materials, equipment, and tools; known hazards in the operations and how they are controlled; potential risks to health; precautions to prevent exposure; hygiene requirements; wearing and use of protective equipment and clothing; appropriate response to operation extremes, incidents and accidents. The employer shall, through appropriate contract specifications and monitoring, ensure that service providers, as well as contracted and subcontracted labour is appropriately trained before start of their assignments.</p>	<p>Sakhalin Energy provides training related to hazards to the employees at the work sites and work places. Staff shall demonstrate that they have a basic awareness of the risks to health of vibration. Where PPE is required staff will receive appropriate training in the use and importance of PPE as described within Sakhalin Energy's Standard for Personal Protective Equipment (Standard: Personal Protective Equipment (PPE)). All contractors and staff working or visiting project sites are required to undergo a safety induction course to make them aware of the potential hazards associated with their environment.</p>	<p>Comply</p>
<p>MONITORING AND REPORTING Occupational health and safety monitoring programs should verify the effectiveness of prevention and control strategies. The selected indicators should be representative of the most significant OHS hazards, and the implementation of prevention and control strategies. The OHS monitoring program should include: Safety inspection, testing and calibration; Surveillance of the working environment; Surveillance of workers health; Training.</p>	<p>Records Occupational Health and Hygiene Sakhalin Energy ensures monitoring, reporting and review in accordance with</p> <ul style="list-style-type: none"> Occupational Health and Hygiene Industrial Control monitoring program Incident Reporting and Follow-up Standard HSE Monitoring and Reporting Standard RF legislation including monitoring protocols, medical fitness certification, First Aid Training Certificates, etc. <p>Noise exposure monitoring and measurement including records of the results of audiometry testing of all staff tested; Sanitary Monitoring program is maintained for all assets offices;</p>	<p>Comply</p>

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	Calibration and maintenance of equipment provided by a licensed laboratory; Work Place Attestation has been conducted; Sakhalin Energy implements a number of training and awareness programmes.	
ACCIDENTS AND DISEASES MONITORING The employer shall establish procedures and systems for reporting and recording: <i>Occupational accidents and diseases;</i> Dangerous occurrences and incidents.	Reports Investigation of acute and chronic occupational illnesses shall be conducted in compliance with the requirements of: The Russian Federation law (Decree No. 967 dated 15 December 2000 "On the Approval of Regulations On Investigation and Registration of Occupational Illnesses" and by the Russian Federation Ministry of Health Order No. 176 dated 28 May 2001 "On the Improvement of a System For Investigation and Registration of Occupational Illnesses in the Russian Federation") All episodes of significant exposure to risks including health risks shall be reported in accordance with the Sakhalin Energy Incident Investigation & Reporting Standard. Occupational Illnesses Investigation is regulated by Sakhalin Occupational Health and Hygiene. Standard	Comply
WORKPLACE AIR QUALITY Protective respiratory equipment must be used by employees when exposure levels for welding fumes, solvents and other materials present in the workplace exceed local or internationally accepted standards, or threshold limit values (TLVs) as annually published, for example, by the American Conference of Governmental Industrial Hygienists (ACGIH)	Sakhalin Energy Occupational Health and Hygiene Standard. Occupational Hygiene Specification R 2.2.2006-05 Health assessment guide for work environment and labour factors. Criteria and classification of working conditions GOST 12.1.005-88 General hygienic requirements for ambient air at working area GN 2.2.5.1313-03 Chemical Factors of occupational Environment. Maximum permissible concentrations (MPCs) of hazardous substances in air at working area". GN 2.2.5.2308-07 "Estimated safe exposure levels of hazardous substances in air at working area". Sakhalin Energy Standard: Personal Protective Equipment	Full compliance with RF requirements and partial compliance with the requirements of ACGIH due to different approaches to measurements techniques which cannot be compared) As per RF Legislation Sakhalin Energy is obliged to use the RF accredited Contractor for testing and measuring of the indicated parameters. The methodologies used for testing and measuring are in accordance with RF requirements so in some cases it is not possible to compare the results with international requirements.
HEALTH: GENERAL Covers the following areas: Sanitary facilities; Ventilation systems; Temperature; Medical examinations	Sakhalin Energy Occupational Health and Hygiene Standard RF Legal Requirements.	Comply
TRAINING Training plans, programs, and practices are to be established and carried out for all personnel. They will include training on basic safety procedures and on environmental issues, and job specific safety procedures according to their duties and responsibilities.	All contractors and staff working or visiting project sites are required to undergo a safety induction course to make them aware of the potential hazards associated with their environment Sakhalin Energy has an extensive list of HSE Trainings. HSE Training are managed by HR Learning and Development Department using HSE Training Requirements matrix.	
HEALTH AND SAFETY BEST PRACTICES Creation of an Environment, Health, and Safety (EHS) Committee is recommended. Employees and management have an opportunity in meetings of the EHS Committee to discuss and communicate safety and environmental issues	Sakhalin Energy has a number of within-asset and Corporate level HSE-related working groups that meet regularly to discuss HSE issues. HSE professionals from within the Company and amongst the contractors are required to attend these working group meetings	Comply



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and their control.	<p>NOISE – Environmental World Health Organisation (WHO) Guidelines for Community Noise (1993-1995 and 2000): Residential receptor: Daytime (07.00-22.00hrs) 55dB(A); night-time: 45dB(A); Industrial and commercial: both 70dB(A); All expressed in maximum allowable log equivalent (hourly measurements).</p> <p>SN 2.4/2.1.8.562-96 Noise at work places, in rooms of residential and public buildings and in residential areas; (RF Ministry of Health, Moscow, 1997) – <i>this states allowable sound pressure levels of 55 dBA (daytime) and 45 dBA (night-time); decibel levels at nine different octave bands (in Hz) are also outlined;</i> SN 2.5.2.047-96 Levels of noise on vessels; SanPin 2.2.4.548-96 Hygienic requirements to microclimate of industrial facilities. GOST 23337-78, Noise. Methods of noise measurements at non-industrial areas and in the rooms of residential and public buildings.</p>	Comply
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL		
<p>Regulation (EC) 1272-2008 covers laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances. The Directive is aimed at product manufacturers and not end users. Article 1.3 states that this Directive does not apply to dangerous substances exported to third countries.</p>	<p>Sakhalin Energy Occupational Health and Hygiene Standard. Chemicals Management Specification. Technical regulation 184-FL from 27.12.2002 list the requirements for goods imported for use within the Russian Federation, with particular reference to labels, instruction sheets and other accompanying documentation. The decree of the RF Government on “State Registration of Potentially Dangerous Chemicals and Biological substances N869” of 12.11.92 Labelling and marking also covered by GOST R 3033-2007 Chemical production safety passport. General requirements Chemicals Packaging is also covered by GOST standards 12.3.010-82 and 3885-73.</p>	Comply
Council Directive 98/24/EC “Chemical Agents Directive”		
<p>Council Directive 98/24/EC (also known as the “Chemicals Agents Directive”) covers the protection and safety of workers from risks related to chemical agents at work. The Directive applies both to chemicals present at the workplace and those generated as a result of any work activity involving chemical agents i.e. it also covers by-products of any activity. The Directive covers chemicals produced, used or released, including released as waste, by any work activity, whether or not produced intentionally. Also referenced under the European Framework Directive on Minimising Risk to Workers No. 89/391/EEC.</p>	<p>Health Risk assessments are integrated as part of the HSE-MS and facility HSE Case. The overarching legislature in the area of Occupational Health and Safety is the Labour Code of 30-12-2001 Reference N197-FZ (hereafter reference as Labour Code). Russian Federation Law covering Technical regulation 184-FL from 27.12.2002 list the requirements for goods imported for use within the Russian Federation, with particular reference to labels, instruction sheets and other accompanying documentation. Relevant Sakhalin Energy staff and key contractors are required to receive the necessary training and some shall become certified COSHH assessors. Sakhalin Energy “Chemicals Management Standard” Sakhalin Energy “Occupational Hygiene” Specification</p>	Comply
<p>Article 4 of the Directive instructs employers to identify the presence of hazardous chemicals at the workplace and assess any risk to the safety and health of workers arising from the presence of those chemicals taking into consideration: Hazardous properties of the chemical as contained in the materials Safety Data Sheet (67/548/EEC); The level, type and duration of exposure; The circumstance of work involving such chemicals, including their amount; Any occupational exposure limit values or biological limit</p>	<p>Labour Code calls for identification and evaluation of the effects of Chemicals / Tasks on employee Health and Safety. In the case of chemicals imported to the Russian Federation the Law requires compliance with the occupational health and safety requirements of the Russian Federation and the need for necessary certificates of conformity. Russian regulations prohibit the use of chemicals in tasks where toxicological (sanitary-hygienic, medical biological) evaluation has not been performed. See comments on Regulation (EC) 1272-2008 above with respect to certification.</p>	Comply

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<p>values established; The effect of preventative measures taken or to be taken; Where available, the conclusions to be drawn from any health surveillance already undertaken. The Article states that the employer must prepare and document such assessments and ensure that such documentation is kept current and relevant – particularly where there have been significant changes which could render it out-of date, or when results of health surveillance show it to be necessary.</p>		
<p>Article 5 of the Directive lists the general principles for the prevention of risks associated with hazardous chemicals and the application of this Directive to the assessment of risk. It calls for the elimination or minimization of risk to the health and safety of workers by: The design and organization of systems of work at the workplace; The provision of suitable equipment for work with chemicals and maintenance procedures which ensure the health and safety of workers at work; Reducing to a minimum the number of workers exposed or likely to be exposed; Appropriate hygiene measures; Reducing the quantity of chemical agents present at the workplace to the minimum required for the type of work concerned; Suitable working procedures including arrangements for the safe handling, storage and transport within the workplace of hazardous chemicals and waste containing such chemicals. Where results of the assessment reveal a risk to safety and health of workers, the specific protection, prevention and monitoring measures described in Articles 6, 7 and 10 shall be applied. Where results of the , assessment reveal that because of the quantities of a hazardous chemical present in the workplace there is only slight risk to the safety and health of workers the provisions of articles 6, 7 and 10 do not apply. In this instance reference should be made to Council Directive 89/391/EEC Articles 6.1 and 6.2. These mirror the requirements set in this article with the addition that the employer provide information and training necessary for the safety and health protection of workers.</p>	<p>Sakhalin Energy manages hazardous materials hazards by:</p> <ul style="list-style-type: none"> • Sakhalin Energy “Chemicals Management Standard” • Sakhalin Energy “Occupational Hygiene” Specification including hierarchy of controls • Sakhalin Energy Waste Management Plan, including waste minimisation issues 	<p>Comply</p>
<p>Article 6 of the Directive lists specific protection and prevention measures that shall be employed to ensure that the risk from a hazardous chemical agent to the safety and health of a worker is eliminated or reduced to a minimum. Protective measure cited range from engineering-out of the chemical requirement through to protection measures – either</p>	<p>Labour Code calls for the provision of: Individual and / or collective means of protection; Suitable PPE certified in accordance with Russian Federation Requirements.</p>	<p>Comply</p>



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<p>collective or individual means.</p> <p>Article 7 of the Directive addresses arrangements to deal with accidents, incidents and emergencies involving chemicals. Of significance are requirement in this Article for: Information on emergency arrangements involving hazardous chemical agents is available. This information should be made available to both internal and external emergency service; Regular safety drills. Appropriate first aid equipment available to treat against chemical exposure.</p>	<p>Basic safety Induction and Emergency Training covers amongst other items PPE, Hazard communication, safety drills, etc. It is envisaged that as minimum there shall be at least one emergency drill (involving outside agencies) per location per annum. This shall be complemented by a desktop exercise during the same period. Routine drills (e.g. building evacuation, lifeboat muster etc) shall be in accordance with pre-defined safety plan. Sakhalin Energy Emergency Preparedness and Response Standard</p>	<p>Comply</p>
<p>Article 8 of the Directive covers Information and training for employees where all employees must: Have access to any materials Safety Data Sheet provided by the chemical supplier; Health risk assessment for the chemical / task to be performed; Information on the hazardous chemical agents occurring at the workplace. This should include identity of the product, risks to safety and health, relevant occupational exposure limit values and other legislative precautions.</p>	<p>Labour Code calls that workers have access to all information and the exposure to named products is included in the job-description. Sakhalin Energy introduce d Dolphin database- a web-based chemicals portal, which satisfies the requirements of these articles. Occupational Health and Hygiene Standard. Chemicals Management Specification. Chemicals Management Standard.</p>	<p>Comply</p>
<p>Article 10 of the directive deals with health surveillance, the results of which shall be taken into account in applying preventative measures in the specific workplace and shall be appropriate where: The exposure of the employee to a hazardous chemical agent is such that and identifiable disease or adverse health effect may be exposure related; and There is the likelihood that the disease or effect may occur under the particular conditions of the employees work; and The technique of investigation is of low risk to the employee. Where a binding biological limit value has been set for a chemical, health surveillance is compulsory and employees shall be informed of this requirement before being assigned to the task involving risk or exposure to the hazardous chemical agent indicated (currently this is only relevant to Lead and its ionic compounds).</p>	<p>Russian Federation Labour Code has overall health and safety surveillance as the driving force behind this legislative act. Regular medicals are covered by Occupational Health and Hygiene Standard.</p>	
<p>Council Directive 96/61/EC</p>		
<p>Council Directive 96/61/EC (Integrated Pollution Prevention and Control) addresses an integrated approach to the prevention and control of pollution arising from the activities of defined industries. Included in the listing of defined industries are mineral oil and gas refineries and installations for the production of basic organic chemicals such as simple hydrocarbons. The Directive relies on permitry from a competent authority to ensure compliance.</p>	<p>Complex Russian Federation permitry covers the licensing of facilities for stated activities. According to article 4 of Federal Law N99-FZ of 04-05.2011 "On Licensing of Some Types of Activities" declares that the named activities which may result in damage to health and the environment are subject to licensing.</p>	<p>Comply</p>



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<p>Article 3 describes the general obligations placed on the Operator to ensure compliance with this Directive: All appropriate preventative measures are taken against pollution, in particular through application of the best available techniques; No significant pollution is caused; Waste production is avoided; where waste is produced, it is recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing the impact on the environment; Energy is used efficiently; The necessary measures are taken to prevent accidents and limit their consequences; The necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.</p>	<p>99-FZ includes reference to various stages of oil and gas exploration, extraction and processing. This article also makes reference to substance management over the complete cycle – including waste and waste management.</p>	<p>Comply</p>
<p>Article 4 and subsequent articles describe information requirements for permit applications and management / enforcement thereafter.</p>		
<p>IFC Hazardous Materials Management</p>		
<p>Guideline document is an amalgamation of principles encompassed in various EU Council Directives described above. The key requirements of this guideline call for: Screening – to determine the characteristics and threshold quantities of each hazardous material; Hazardous Materials Management Program – to manage the risks associated with each hazardous material, the facilities and activities through: Management action – training, worker health and safety, record keeping and reporting; Prevention plans- for transportation, processes and operations, and hazardous waste; Emergency Preparedness and Response Plans – response activities, medical assistance, communications and incident reporting. Community involvement and Awareness – informing the potentially affected community and provide for public feedback.</p>	<p>These Guidelines are a compilation of requirements covered by the various EU Directives outlined above, and the Company complies as set out above. As part of the Russian Federation process, full disclosure is made as part of the public EIA hearing process, with EIA hard copy lodged at public libraries. Public meetings are held in potentially affected communities as per Public Consultation and Information Disclosure Specification (0000-S-90-01-O-0021-00-E Appendix 7) and PCDP – all subjects are open for discussion and captured in the minutes of meeting. Occupational Health and Hygiene Standard. Chemicals Management Specification. Chemicals Management Standard.</p>	<p>Comply</p>



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<p>Screening – the Guideline calls for the Operator to determine and quantify the type and volume of Hazardous material present at a location and against IFC recognised standards e.g. OSHA Standard 1910 – Subpart H, screen chemical and volume against the threshold quantity (Weight/Volume of Hazardous material covered by this standard). Net result of the screening would be a summary table identifying every hazardous material used, produced or transported along with the following information: Quantity used per month; Characteristic(s) that make(s) it hazardous (e.g. flammability, toxicity); Hazard level (low or high); Threshold quantity and a cross-reference to its management procedure.</p>	<p>See above</p>	<p>Comply</p>
<p>Management Procedures – must be developed for each Hazardous material/ common grouping. These procedures in principle must contain: Worker health and Safety – all employees working with hazardous materials must be provided with necessary personal protection equipment, emergency eyewash and shower stations, ventilations systems, sanitary facilities, pre-employment and scheduled periodic medical examinations. Periodic monitoring of workplace air contaminants relative to employee tasks is required; Training – the company’s capabilities in the management of hazardous materials must be assessed to determine the level of further training required. All employees working with hazardous materials should be trained in hazard identification, safe operating procedures, safe work practices, basic emergency procedures and (if applicable) special hazards unique to their task. Training should include information from material Safety Data Sheets (SDS) for hazardous materials being handled. SDSs should be readily accessible to employees in their local language. Periodic review of hazardous materials management procedures should be reported and filed;</p>	<p>See above</p>	<p>Comply</p>



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<p>Record keeping and reporting measuring and monitoring records must be made available to employees handling hazardous materials. Records should be kept for IFC review and reports on hazardous material should be submitted regularly to IFC – at least once a year as part of the Annual Monitoring Review. . Monitoring Data should include (1) marking of hazardous chemicals; (ii) location, nature dimensions of workplace monitored; (iii) type and duration of employees' exposure; (iv) sources of airborne emissions; (v) relevant background information on emissions (engineering controls, ventilation, weather conditions, etc); (vi) sampling methods used and (vii) names of persons doing the sampling, date, and exact time of sampling. Accident and incident investigation reports relating to hazardous materials must be maintained and kept on file for a period of at least five years.</p>		
<p>Preventative measures – must be developed to prevent accidents involving hazardous materials and to integrate these procedures in day-to-day business activities, As a minimum the following must be implemented: Life and Fire Safety – all buildings, plant, structures etc financed by IFC must be in full compliance of local building codes local fire department codes, local legal / insurance requirements and in accordance with internationally accepted life and fire safety standards; Process and Operations- the elimination or substitution of hazardous materials should be explored whenever possible through design modifications, engineering controls, and enhanced technical procedures. A prevention plan must be developed to cover: Written process safety parameters (i.e. hazards of the chemical substance, safety equipment specification, safe operating ranges for temperature, pressure and other applicable parameters, evaluation of the consequences of deviation etc); written cooperating procedures for all activities involving hazardous materials and compliance audit procedures.</p>	<p>Sakhalin Energy is fully compliant with the requirements of the Shell Group standards on safety; the Sakhalin Energy HSE standards; and the requirements of RF Law in this regard.</p>	
<p>Transportation – reflects the requirements made under European Directive 94/55</p>		



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<p>Emergency Preparedness and Response Plan – should be prepared to cover accidents involving hazardous materials and should address the following: Preparedness and response principles; Communications with local authorities and emergency response bodies; Medical aspects of emergency preparedness and response including first aid; Incident reporting and investigation, including record keeping; Emergency response training.</p>	<p>Emergency response plans are prepared for each asset prior to the commissioning and operational phases of the Project. Training in emergency procedures is provided to relevant staff. Sakhalin Energy Emergency Preparedness and Response Standard Sakhalin Energy Medical Emergency Response Specification.</p>	<p>Comply</p>
<p>Community involvement and Awareness- when hazardous materials are in use, the potentially affected community (e.g. people around the facility, people on the transport route) should be informed and provided with a means of public feedback. Community involvement activities to include: Provide general information (e.g. in writing or through meetings) on the nature and extent of potential offsite effects on human health or the environment, including property; Provide specific and timely information both as a routine practice and in the event of an accident, on the appropriate response and safety measures to be adopted; Provide access to other available information need to understand the nature of the possible effects of an accident and to enable community members to contribute effectively, as appropriate, to decisions concerning hazardous installations and the development of community emergency preparedness plans; Record keeping of complaints or inquiries and responses; Applying mitigation measures for validated repeated complaints.</p>	<p>The Company has prepared a Public Consultation and Disclosure Plan which is available on its website and which details how the Company interacts with the communities on Sakhalin Island and more widely, and how stakeholders can contact the Company or alert the Company to a grievance. Sakhalin Energy shall carry out public consultation and disclosure in accordance with the Public Consultation and Disclosure Plan. The Company shall address any potential accident issues as appropriate.</p>	