1. **SAFETY**

**General.**

The operations on the object will be conducted in accordance with the laws of the Russian Federation concerning safety, rules and directions, local regulations that provide the priority of preserving employees’ life and health and creating safe working conditions at every workplace.

Projected operations will be conducted in accordance with the following regulations:

* Marine Geological Exploration Safety Rules AD-08-37-95;
* Geological Exploration Safety Rules SR 08-37-2005;
* Rules for Design and Safe Operation of Pressure Vessels (SR 03-576-03), approved by the Federal Mining and Industrial Supervision of Russia Decree, 11.06.03 № 91;
* Interindustry Health (Safety) Rules for Operating Electrical Equipment (HSR M-016-2001 AD153-34.0-03.150-00), approved by the RF Ministry of Labour Decree № 3, 05.01.2001;
* IAGC Marine Geophysical Operations Safety Manual;
* Naval Vessels Safety Rules (AD 31.81.10-91);
* Abandoning Vessel Manual AD 31. 60 25 - 85;
* RF Fire Safety Rules, April 25, 2012 N 390;
* User Rules for Operating Electrical Equipment, approved by the Russian Federation Ministry of Energy Order, 13.01.2003 №6;
* Interindustry Rules on Labor Safety by Cargo Handling Operation and Cargo Disposition (HSR M -007-98) approved by the RF Ministry of Labor Decree №16, 20.03.1998, other health and safety regulations, directions, job descriptions;
* Regulation on Industrial Accidents Investigation. Peculiarities in Certain Industries and Entities: Ministry of Labor and Social Development Decree № 73, 24.10.2002;
* Health and Industrial Safety Management System.

**Organizational arrangements.**

The following company orders shall be prepared:

* of establishing and manning the party;
* of appointing persons responsible for ensuring safe working conditions and labor safety, for safe work performance, for good working order and safe operation of the facilities, machinery, equipment and instruments;
* of appointing persons responsible for carrying out an internship with newly hired workers.

Workers’ training and knowledge testing programs shall be organized and conducted on the following topics:

* labor safety and law requirements (for special contingents of workers according to the approved programs);
* labor safety considering the specification of the performed work;
* special education of the workers, who are connected or engaged in the operations subjected to have higher additional safety requirements (cargo handling operation, operation of pressure vessels, tripping operation, etc.);
* electrical safety;
* all the employees of the units prior to the marine operations are taught of techniques and skills related to the specificity of the marine operations: life boating techniques, rules of behavior during natural disasters, fire and emergency action procedures, operating collective and individual rescue and protection equipment for the first aid treatment according to the BSTI program.

All the necessary labor safety documentation shall be prepared, including:

* the work types and profession-specific labor safety instructions;
* logs (briefing at a workplace, the state of labor safety, hot work and others).

The first stage of the internship shall be carried out (professional training with knowledge testing) for newly hired workers or for the introduction of new equipment.

Appropriate briefings are hold and logged.

Medical assessments are organized to obtain medical assessment reports on medical fitness for field work of all the party workers and vaccination shall be done in compliance with the endemic areas of work performance.

Crews and party workers are provided with the coveralls, safe footwear and other personal protective equipment, medical supplies and means of salvation.

During a pre-survey period the project risks are assessed.

Prior to the beginning of work and during the organizational period the supervisors and commanders of the vessel examine physico-geographical and navigational conditions of work, study the order of work, communication and risks connected with the work.

All party workers are instructed on Vessels Safety Rules and “Abandoning Vessel Manual AD 31. 60 25 – 85”.

Facilities, equipment and tools prior to the work pass inspection, testing, verification, technical certification in accordance with the technical requirements for their utilization approved by appropriate special technical committees’ acts and protocols.

**Vessels and vehicles requirements.**

Research Fleet

All the vessels are suitable for use and maintained in a safe working order.

The company Safety Maritime Management System (SMMS) functions in accordance with the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code), within this system the procedures ensuring safe vessels operations and work performance from them are carried out.

During the performance of work the following shall be ensured:

* vessels operating is safe for human and the environment;
* prediction and protection from the identified risks;
* constant improvement of offshore and onshore personnel skills in safety management, including emergency readiness for both safety and environmental protection.

***Transportation of passengers and cargo.***

The transportation of personnel, equipment and cargo shall be permitted only on technically sound vehicles. Moreover, the following conditions should be kept:

* the number of passengers should not exceed the identified one in the manufacturer's vehicle specifications;
* while vehicle is on the move all passengers in should wear seatbelts;
* walking inside, looking out of the window, smoking, drinking alcohol, distracting the driver is prohibited when moving;
* the cargo should be firmly secured, its weight should not exceed the manufacturer's specification of the allowable limit for the vehicle.

The transportation of people in the truck body being flatbed is permitted if it is equipped in accordance with the regulatory requirements, but the transportation of children is permitted only in exceptional cases. A driver is obliged to instruct passengers on the order of getting in/off the vehicle prior to boarding.

The transportation in the truck body, that is not equipped for the transportation of passengers is permitted only persons accompanying (receiving) the cargo if their seats are below the level of the boards.

When transporting personnel on the watercraft the hydro-meteorological parameters (wind power, seaway, etc.), which are suitable for boarding-landing of people and cargo operations are defined by both the person responsible for the safety of the work and the ship-owner depending on the area of work, vessel type, the nature of the cargo, etc. It is necessary to carry out boarding and landing of people from one ship to another and back while it is seaway in the most applicable safe way, using allowed operations matrix. All vessels must have a sign indicating allowable number of people to be transported, cargo capacity and a date of the last test.

People should be transferred only if they consider it is safe. They should never be forced to be transferred.

People on board of the watercraft are prohibited:

* to go beyond the guard rails;
* to keep their hands on the bulwark rail when ship is mooring or clearing;
* to be at the mooring system when ship is mooring.

**Alcohol and drug requirements**

*Organizational aspects of alcohol and drug policy.*

Supervisors of all levels ensure non-admission to work of persons in a state of alcoholic or drug intoxication.

Applicants for job are informed about the storage, distribution and consumption of alcohol and drugs at a workplace and on the territory of the company objects.

Planned and unplanned alcohol and drugs tests of the employees take place in all the departments of the company.

The company reserves the right to authorize special services (officials) to carry out tests in all the departments of the company without warning with the purpose of finding drugs and alcohol at the objects owned or controlled by the company, the presence of alcohol, drugs and other substances in the body, in case of reasonable doubt and without any.

The supervisor is obliged to provide an inadmissibility of carrying through, locating (except the substances necessary for operation activities on the territory of the objects) and usage of alcohol, drugs or toxic substances by any employee on the territory of the object, as well as during an inter-shift break on the research vessel.

*The main provisions of alcohol and drug policy.*

The use of alcohol, drugs or some of medicinal products causes a number of significant changes in human behavior. Even a small amount of alcohol or drugs can significantly worsen a person's ability of adequate responses and disrupt coordination required for performing simple work tasks.

The company approves alcohol and drug policy at all levels and ensures the implementation of its requirements both ashore and offshore, as follows:

* be on worksites and on board of the company vessels alcohol- or drug-fuelled is prohibited;
* it is forbidden to use, to distribute, to produce, to store alcohol and drugs at any workplace and any object of the company;
* the abuse of authorized medicinal products at any place where an employee must perform his employment duties by company’s order is strictly prohibited;
* alcohol and drug abuse testing and verification of all the employees during preliminary or periodic medical examinations is obligatory;
* any member of the crew of the vessel or the field group will be immediately deducted from the vessel (object) because of alcohol abuse and is obliged to cover all expenses connected with his replacement;
* the employees are prohibited to store or use drugs other than prescribed ones.

Any employee of the company may be subject to unplanned, periodic or random testing, including any employee:

* holding a position connected with high occupational hazards, health, industrial and environmental safety risks;
* holding an executive position;
* holding a position, that provides for such tests in compliance with the laws of the Russian Federation.

Staying at a workplace in a state of intoxication at any time and on any worksite is regarded as gross violation and may result in a dismissal. The term "workplace" includes any way to and from the place of work, including trips abroad, field work during all time, not even related to the implementation of a work task.

Every employee of the company must be constantly aware of the potential seriousness and danger of incidents, both ashore and offshore, connected with alcohol and drugs.

The company has the right to send an applicant to have a medical examination with the purpose of revealing alcohol or drug addiction.

The employees may use prescription or non-prescription medicinal product in therapeutic doses, until it reduces the efficiency and safety of movements, provided that the relevant executive staff is aware of this fact.

The employees who are not sure that the medicinal product they take doesn’t contradict this policy, first of all, should see a safety officer, a doctor or the head of the field group in confidence.

In the case of detection of alcoholic, drug or other intoxication signs of any employee during the shift work, the supervisor must immediately suspend him from work.

In the event of visual detection of alcoholic, drug or other intoxication signs of the employee during the performance of his employment duties the supervisor must suspend him from work and draw up a report on the suspended employee state (Annex 1 Provision of alcohol and drug policy) as well as offer the employee to undergo a medical examination or inspection and to provide a written explanation of this fact.

In the case of the employee’s refusal to give explanations and/or undergo medical examination (inspection), corresponding entry certifying the existence of appropriate visual signs of alcoholic, drug or other intoxication of the employee and his refusal to give explanations and/or undergo medical examination (inspection) is made in the report.

This entry shall be certified by at least two signatures of employees or other independent parties. The results of the medical examination (inspection) as well as the employee’s written explanation shall be attached to the protocol and since their drawing-up become an integral part of it.

**Labor protection and safety monitoring, reporting.**

Labor protection and industrial safety during the work performance includes:

* a three-stage system of production control;
* production control over the compliance with the industrial safety requirements;
* check the readiness of field groups to work;
* comprehensive, special-purpose and operational audits;
* external and internal audits.

Labor protection and safety reporting is carried out according to the procedures stated in the integrated safety and quality management system.

Labor protection and safety reporting is made over the work period on a monthly basis and includes the following:

* the liquidated man-hours (based on 24 hours per day per person);
* the number of occupational injuries;
* the number of incidents, accidents, spills of fuel, fires, etc .;
* the number of reported unsafe situations;
* the number and types of alarms for instruction;
* the number and types of held security meetings;
* the number and types of held security audits;
* all traffic emergencies;
* information on the measures aimed at improving working conditions, raising the level of industrial and fire safety, environmental protection, on the implemented activities worked out as the result of the accidents investigations.

**Labor protection and security briefings and meetings.**

An introductory briefing on labor protection and fire safety shall be held with all employed workers. An initial briefing shall be held at workplaces prior to the start of work with all employees. Newly hired workers are trained at the workplace within 2-14 shifts to reinforce the skills of safe operations. A refresher briefing at the workplace shall be held not less than in 3 months. A special-purpose briefing shall be held for the employees performing one-time work (cargo handling operation, etc.) with the purpose of safe performance of work.

Security meetings are necessarily held prior to the start of work or activities of party workers, including fieldwork. The purpose is to discuss the main issues of security and production culture to inform about the risks of the performed operations.

The following issues are into consideration:

* medical care;
* sanitary and hygienic conditions during the performance of field work and during the journey to and from the work.

After placing the party workers on support vessels and holding special-purpose briefings by senior assistants (captains), a meeting of field parties workers for clarification of possible risks and rules of conduct considering the specification of a particular vessel shall be held.

The following ship alarm bells with summing-up security meeting take place once a week:

* firefighting alarm;
* man overboard alarm;
* abandoning vessel alarm;
* general vessel alarm.

**Hygienic and sanitary conditions.**

Party workers are provided with rest-rooms having a ventilation system and air-conditioning/ heating air. Linen change shall take place regularly.

Sanitary rooms are worked out according to the number of the crew members, taking into account the gender of the employees. Cooking is carried out by trained personnel having undergone a medical examination. The crew has meals in a dining room or mess room. Separate washing machines are provided for everyday clothes and coveralls washing.

**Fire safety**.

Organizational measures.

Fire prevention measures applicable for specific conditions are worked out for the whole period of work.

Work production and life of the expedition members take place in accordance with the fire-prevention measures requirements, as follows:

* only qualified crew members with appropriately obtained and registered permits are allowed to conduct hot work and work using an open flame (electro-gas welding, heating, etc.) according to the ISM Code prescribed procedures;
* smoking is only in specially arranged places;
* the use of homemade heaters and that sort of thing isn’t permitted;
* potentially fire unsafe workplaces must be equipped with primary fire extinguishing means.

Training and briefing.

The firefighting training of the personnel is carried out within the framework of ISTS (initial safety training and methods of personal survival) by the organizations eligible (having license) for this type of training. All party workers prior to the start of work get this kind of training. On boarding the ship the party workers are provided with firefighting briefing.

Technical measures and fire extinguishing means.

The register of all the vessels designed for performance of work shall be inspected.

**General work production safety requirements.**

The performance of any kind of work shall not start until the following is provided:

* risk assessment and briefings considering work types;
* all employees assigned for work performance are properly trained and competent to perform the work;
* all necessary security measures are in place, the staff is provided with PPE in accordance with the risk assessment requirements;
* thoroughly thought out evacuation plan of the personnel from the place of work in the event of an emergency;
* the employees are informed that the work should be stopped, if it can’t be performed in a safe way.

The operations that require compliance with the additional security measures, but do not require special arrangements of workplaces belong to work with additional safety requirements.

***Offshore operations.***

Offshore operations will be carried out from the vessels suitable, specially equipped for such operations and certified by correspondent technical inspection report. Work rooms and welfare facilities, workplaces on ships are provided with fire extinguishing means, first aid kits as well as life-saving appliances according to the norms of the Maritime Register.

Tripping of the outboard equipment is performed by at least two workers under the supervision of the party officer. The tripping devices must have been tested. Presence of strangers is not permitted in the unsafe working zone of the hoisting mechanism.

Navigation operations include the installation of equipment, registration and recording data in the logs and maps during the operation. The party workers must have the second OR and SR consumers’ electrical equipment safety qualification level.

The supervisor of the company or his deputy is immediately reported on any accident or incident and measures are taken in compliance with their orders. All the accidents are investigated, even if they have not led to injury with loss of working hours.

The captain is responsible for ensuring safe working conditions and fire safety, protection of the environment for the vessel as a whole. Geophysical equipment and facilities are installed on the vessel at the place determined by the captain and properly secured to prevent their displacement during rolling.

Eating, work and rest schedule is determined by the ship's routine. To ensure the continuity of the observations on the profile the watch-standing operating mode is used in compliance with the provisions of Sec. 16-18 of the RF Labour Code, the International Maritime Personnel Labor Convention and the provisions of the International Convention IMSBC.

The supervisor of the operations assigned by the order of the company General Director is responsible for the compliance with safety requirements by all the party personnel. The appointment throughout the organization of persons responsible for the proper technical condition of the equipment, fire safety, ensuring the security of the geophysical survey in the parties and of work types takes place after the supervisor’s presentation by order.

Working relationships between the captain of the ship and the supervisor are determined by the relevant provisions of the “Statute of marine vessels service of the Ministry of Geology of the USSR" (1983), the International Safety Management Code, Integrated Company Safety and Quality Management System”.

Hazardous areas on the ship, where people may get electric injury, be damaged by compressed air, air wave, falling weight, etc. are marked with the appropriate safety signs and if necessary fenced. All the employees are instructed according to the work types and occupations by supervisors.

**Providing the employees with coveralls, safety footwear and personal protective equipment.**

Providing the employees with coveralls, safety footwear and personal protective equipment shall be in accordance with the applicable regulations of the Russian Federation and local regulations: Art. 221 the RF Labour Code, the "Coveralls, safety footwear and other personal protective equipment provision rules", approved by the Russian Federation Ministry of Labour and Social Development Decree № 51, 18.12.98, as amended on 29.10.99 and 03.02.04, "Industry standard distribution of coveralls, safety footwear and personal protective equipment to the employees engaged in geological, topographic, geodetic, surveying, land surveying operations and cartography ", approved by the Russian Federation Ministry of Labor Decree № 61, 63, 66-70, 29.12.97; Ministry of Health and Social Development №357.

**First aid treatment techniques** **training of the personnel.**

First aid treatment techniques training of the party personnel takes place in compliance with the BSTI program (safety training and methods of personal survival) by the organizations eligible (having license) for this type of training. All the party workers undergo this kind of training prior to the start of work.

Briefing on the first aid treatment techniques of the party workers is held quarterly and prior to the start of work to consolidate previously acquired knowledge and skills, review and analyse the operational information in the course of work performance.

**Medical support of the personnel.**

Medical care of the party workers is performed by a doctor and/or a nurse.

All the workplaces are provided with the first aid kits with the usage instructions and the first aid treatment manual, eye wash stations in it.

Emergency medical treatment is organized in the case of an occupational accident or an acute disease happened to a worker during the performance of his employment functions in order to:

* save the company employee’s life and health;
* minimize the consequences of an occupational accident or an acute disease happened to a worker during the performance of his employment functions;
* assist in absolute recovery of the company employee.

Emergency medical treatment is conditionally divided into four levels from the moment of the detection or treatment of the victim:

Level I - first aid treatment of the victim (the patient) no later than 4 minutes by the nearby workers;

Level II - emergency medical treatment by the medical unit personnel;

Level III - qualified medical treatment in hospital environment;

Level IV - medical treatment in a specialized medical facility.

**Emergency risk assessment**.

Prevention of emergency situations both for avoiding (reducing the probability of the occurrence), and for reducing the losses and damage from them (mitigation) is conducted in the following ways:

* monitoring and forecasting of emergency situations. Constant observation of phenomena and processes occurring in the work area to anticipate the growing hazards to human health and the environment shall take place;
* risk assessment;
* rational placement of the equipment and workers onboard the ship taking inti consideration natural and technogenic safety;
* avoiding accidents and technogenic disasters by increasing the technological safety of the production process and operational reliability of the equipment;
* development and implementation of engineering and technical measures aimed at preventing the origin of the emergency sources, mitigation, protection of the personnel and material resources;
* operating personnel training and improvement of technological and labor discipline;
* insurance of liability for causing damage resulting from the operation of hazardous production facilities.

**Operational emergency procedures of the officers and personnel.**

In the event of an emergency situation or incident the first and second management level officials (team leaders and heads of units) inform about it the third management level officials (the party supervisor or his deputy, the research vessel captain) immediately.

On the basis of this information the third management level officials carry out a preliminary analysis of the accident and development of the situation, and report the details of the accident or emergency situation to the fourth management level officials (general director or his deputies, head of the offshore operations department, HS lead engineer, SMS appointee, the supervisor of the vessel).

Operational measures on the elimination of the emergency and localization of its consequences and development are taken.

In accordance with the table of severity the fourth management level officials (general director or his deputies, head of the offshore operations department, HS lead engineer, SMS appointee, the supervisor of the vessel) are immediately informed of an emergency resulted in:

* injuries and other severe cases of damage to personnel health;
* fatality, including group one;
* damage of the hull;
* stoppage of works because of an accident for more than 12 hours;
* inactivation of the equipment for more than 24 hours;
* oil or fuel spill.

The report about an emergency on board ships is immediately delivered to the company, where the company emergency response team is created. It operates according to the Ashore emergency response plan.

In accordance with the table of the severity the information about any other emergency and incident is communicated to the administration by means of daily reports.