



APPENDIX 6 MARINE MAMMALS SPECIFICATION

PURPOSE

Define specific controls for managing *Risk 1* to marine mammals.

WHO IS THIS FOR?

- *Marine Manager;*
- *Corporate Environmental Manager;*
- *Project Managers*
- *Contract Holders and Contractors* where work scope includes offshore activities.

REQUIREMENTS FOR OFFSHORE OPERATIONS

1. Russian Federation and International requirements specified in, but not limited by Appendix 2.
2. Marine Mammal Protection Plan (MMPP)
 - The mitigation, monitoring and protection measures identified in the MMPP (previously the Western Gray Whale Protection Plan) shall be implemented.
 - Requirements set out in MMPP shall be contained within all relevant method statements, procedures, environmental management plans and other plans dealing with project activities where marine mammal protection is likely to be an issue.
3. Western Gray Whale Advisory Panel (GWAP)
 - Sakhalin Energy has implemented the GWAP in line with the outcome of the Vancouver Report, and shall support the GWAP until such time as review by the Company and Lenders results in agreement that this is no longer appropriate.
 - Sakhalin Energy shall provide funding for the GWAP to undertake its activities in line with its agreed terms of reference and shall make best efforts to ensure that the GWAP operates in line with the terms of reference in conjunction with a suitable independent convener.
 - Should the GWAP cease to operate due to circumstances beyond the control of Sakhalin Energy, Sakhalin Energy shall make reasonable endeavours to instigate an equivalent advisory body. The new body would be convened and operated to the satisfaction of the entities that make up the new body. The Company shall consult with the Lenders throughout this process.
 - Sakhalin Energy shall keep the GWAP informed of its offshore activities (including any future seismic surveys) on a regular basis in order that all future priority issues can be identified and reviewed in a timely fashion.
 - All proposed changes to the MMPP shall be provided to the GWAP for review.
 - The Company shall implement all reasonable recommendations from the GWAP, provided that they comply with Russian law, and to seek support for these recommendations from shareholders, Russian Party and joint industry partners as appropriate.
4. Navigational Corridors
 - All transiting vessels are required to keep within navigational corridors unless essential for safety or specifically required and authorised. For all non-transiting vessels involved in offshore construction activities and operations, specific corridors have also been promulgated.
 - These corridors are detailed in the MMPP.

¹ Italicized terms in this document are included in the Sakhalin Energy HSE Glossary.



MARINE ENVIRONMENT PROTECTION STANDARD

REV. 01

- Navigational corridors are clearly marked and set out on appropriate charts and maps and made available to vessel operators and captains.
 - Prior to mobilisation all relevant persons on the vessel shall receive a briefing with regard to Marine Operating Procedures and Guidelines (MOPAG) and mitigation measures that apply for its activity and area of operation.
 - When transferring the personnel to the platforms the crew change vessels are required to transit directly from Kaigan Port to the offshore platforms in a navigational corridor that avoids both feeding areas unless a deviation is necessary for safety reasons or otherwise specifically required and authorised.
 - The captain and crew of these vessels are required to have Marine Mammal Observer (MMO) training.
 - Except where pre-approved or in emergency situations, vessels shall avoid entering the feeding ground areas during the feeding season.
5. Vessel Operational Practices
- All relevant mitigation measures shall be included in the MOPAG. This document includes a map of all gray whale sightings and the shipping lanes and construction corridors.
 - Speed limits and operational practices for vessels have been established to minimise the likelihood of encounters between whales and vessels.
 - Vessel operators are instructed to avoid activities, such as sudden changes in speed or course that could increase collision risk, and to avoid approaching gray whales closer than 1 (one) km.
 - For the operational phase an assessment of the risk of collision between marine mammals and trading tankers was undertaken and included in the MMPP. Detailed information on vessel operational practices is provided in the MMPP.
6. Monitoring and Control
- MMOs shall be provided on identified vessel types as defined in the MMPP.
 - The MMO guidance will be based on international guidelines, such as those of the International Whaling Commission (IWC) and the Joint Nature Conservation Committee, UK (JNCC), as well as international industry best practices applied elsewhere.
 - MMOs are to report on a daily basis all marine mammals observed relative to the vessels. Any marine mammal/vessel collisions, near-misses, and observations of injuries are to be reported immediately to a Sakhalin Energy HSE representative.
 - Position tracking of vessels by satellite radio interrogation shall be agreed for each vessel according to contract and all vessels shall send daily position reports as required by MOPAG.
7. Seismic Acquisition
- Sakhalin Energy shall implement a monitoring and mitigation plan for any seismic acquisition that has the potential to impact on Gray Whales.
8. Oil Spill Response
- Aspects relating to oil spill impacts that may affect marine mammals shall be covered under the Sakhalin Energy Emergency Preparedness and Response Standard, asset-specific Oil Spill Response Plans, and the MMPP.
9. The gray whale feeding areas shall be avoided by all types of aircraft, unless essential for safety or specifically required and authorised, for example Gray whale survey flights.
- Details on aircraft altitude requirements and operational practices are detailed in the MMPP. Requirements are communicated to all aircraft crews and contained within relevant flight plans.



Flight paths and restricted areas to be clearly marked on available navigational maps and charts and made available.

REQUIREMENTS RELATING TO CONSTRUCTION ACTIVITIES

10. In known Gray Whale feeding areas, no disposal of liquid and solid waste shall take place. There is no requirement for dredging in the Piltun and Lunskeye areas that requires disposal of dredged material.
11. At least two trained MMOs shall be present on all key vessels (defined as a vessel that provides the most appropriate base for marine mammal observations during the planned activity) involved in offshore construction activities and shall retain a continuous watch for gray whales and other marine mammals during daylight.
 - All marine mammal sightings shall be recorded on specific data sheets. Where MMOs are not present on vessels, specially instructed crew members shall watch for marine mammals.
 - MMOs are advisors to both the Sakhalin Energy HSE representative on board and to the captain. The Sakhalin Energy HSE representative has the responsibility to ensure that the mitigation measures advised by the MMO are executed. The Sakhalin Energy HSE representative has authority up to and including directing all shipboard activities to be suspended, and the captain of the vessel can only overrule such direction in the interest of safety of the vessel.
12. If practically feasible (depending on schedule, weather and safety), offshore construction activities close to the Piltun feeding area are to be scheduled outside the peak season.
13. Noise Management
 - Contractors are required to use equipment and/or procedures that minimise noise. [EIA Volume 2, Chapter 3, Section 3.8.2]
 - Criteria have been developed that will trigger corrective actions if the defined noise levels are exceeded. Information on the noise criteria can be found in the MMPP. Sakhalin Energy's approach is to ensure that noise acceptability criteria are met, as defined in Sakhalin Energy Noise Management Strategy, Noise Modelling Strategy and Noise Monitoring Strategy. This includes planning of activities, use of archival and/or real time monitoring with associated action criteria, and post activity analysis to identify any correlations with the noisy activities. Specific noise monitoring programme developed and implemented that allows archival and/or real time monitoring of received noise levels in the Piltun feeding area. Details are contained in the MMPP. Prior to the start of any offshore operations associated with the high levels of noise the vessel captain shall receive a briefing on the mitigation measures and their importance.