CGG Services (Canada) Inc. Newfoundland Offshore Seismic Program, 2016 – 2025 Draft Scoping Document Review Comments

REVIEW COMMENTS

Canada-Newfoundland and Labrador Offshore petroleum Board (C-NLOPB)

It is important to identify the maximum streamer length and amount of line kilometres of seismic data acquisition for the life of the program. Details are provided for 2016, but it is the experience of the C-NLOPB that details for future programs aid in the assessment of proposed projects.

Seismic activities will need to be assessed for concurrent vessel use, up to two 3D seismic vessels, but the assessment of single vessel use should also be done.

Transport Canada

Section 1.1, Page 1 of the CGG Project Description: Navigable Waters Protection Act is now called Navigation Protection Act.

All project vessels must comply with the applicable regulations under the Canada Shipping Act, 2001 (CSA 2001) and applicable International Maritime Organization (IMO) standards.

More specifically:

- Project vessels registered in Canada must comply with all applicable provisions of the Regulations pursuant to the CSA 2001. In addition, the operation must comply with provisions under the Maritime Occupational and Health Regulations pursuant to Part II of the Canada Labour Code.

Environment Canada

Regulatory Requirements

Fisheries Act

The proponent should be aware of the general applicability of Section 36(3) of the *Fisheries Act* which states: "no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substances or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water". Environmental protection and mitigation measures should reflect the need to comply with Section 36(3) of the Fisheries Act. For example, measures should be taken to prevent substances such as lubricating fluids, fuels, etc. from being deposited into water frequented by fish, and drainage from construction and operational drainage must not be harmful to fish.

Regulations – Migratory Birds

Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). Migratory birds protected by the MBCA generally include all seabirds (except cormorants and pelicans), all waterfowl, all shorebirds, and most landbirds

(birds with principally terrestrial life cycles). Migratory birds, their eggs, nests, and young are protected under the *Migratory Birds Convention Act* (MBCA). The list of species protected by the MBCA can be found at: https://www.ec.gc.ca/nature/default.asp?lang=En&n=496E2702-1. Bird species not listed may be protected under other legislation.

Under Section 6 of the *Migratory Birds Regulations* (MBR), it is forbidden to disturb, destroy, or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities.

Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

"5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds."

It is the responsibility of the proponent to ensure that activities are managed so as to ensure compliance with the MBCA and associated regulations.

Regulations – Species at Risk

The proponents should also be reminded that the prohibitions under the *Species at Risk Act* (SARA) are now in force. The complete text of SARA, including prohibitions, is available at http://laws-lois.justice.gc.ca/eng/acts/s-15.3/.

It should be noted that Section 79 of the *Species at Risk Act* states:

> **79.** (1) Every person who is required by or under an Act of Parliament to ensure that an assessment of the environmental effects of a project is conducted, and every authority who makes a determination under paragraph 67(*a*) or (*b*) of the *Canadian Environmental Assessment Act, 2012* in relation to a project, must, without delay, notify the competent minister or ministers in writing of the project if it is likely to affect a listed wildlife species or its critical habitat.

(2) The person must identify the adverse effects of the project on the listed wildlife species and its critical habitat and, if the project is carried out, must ensure that measures are taken to avoid or lessen those effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategy and action plans.

The following species at risk (as listed on Schedule 1 of the *Species at Risk Act*) may occur within the study area: Ivory Gull (Endangered) and Harlequin Duck (Special Concern). Though unlikely to be found within the project footprint, these species may occur within the study area and we request that sightings be reported to EC-CWS.

Canadian Environmental Protection Act

The proponent should also be aware of the potential applicability of the *Canadian Environmental Protection Act* (CEPA). The *Canadian Environmental Protection Act* enables protection of the environment, and human life and health, through the establishment of environmental quality objectives, guidelines and codes of practice, and the regulation of toxic substances, emissions and discharges from federal facilities, international air pollution, and disposal at sea.

Migratory Birds & Species at Risk

The Canadian Wildlife Service of Environment Canada (EC-CWS) has reviewed the above documents and offers the following comments.

Considerations Specific to Migratory Birds

Migratory birds, their eggs, nests, and young are protected under the federal *Migratory Birds Convention Act* (MBCA) and the complementary regulations (*Migratory Bird Regulations, Migratory Bird Sanctuary Regulations*). Certain species are recognized to be at risk under the federal *Species at Risk Act* (SARA), provincial endangered species legislation, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), or by the Atlantic Canada Conservation Data Centre.

In conducting the environmental assessment (EA), the vulnerability of individual species/groups of migratory birds to sampling programs must reflect a consideration of the following basic factors:

- distribution and abundance of species during scheduled project activities;
- impact pathways;
- mitigation;
- cumulative effects; and
- provisions for follow-up on assessment accuracy and mitigation effectiveness.

The following impact pathways influencing migratory birds must be considered in the analysis of any seismic survey:

- noise disturbance from equipment including both direct effects (physiological), or indirect effects (foraging behaviour or prey species);
- physical displacement as a result of vessel presence (e.g., disruption of foraging activities);
- nocturnal disturbance from light (e.g., increased opportunities for predators, attraction to vessels and subsequent collision, disruption of incubation);
- exposure to contaminants from accidental spills (e.g., fuel, oils) and operational discharges (e.g., deck drainage, gray water, black water); and
- attraction of, and increase in, predator species as a result of waste disposal practices (i.e., sanitary and food waste) and the presence of incapacitated/dead prey behind the vessel.

The proponent should refer to any applicable Strategic Environmental Assessments (SEA), where appropriate. For annual updates, the proponent is encouraged to contact EC-CWS to ensure that information listed in the SEA is still accurate.

Considerations Specific to Species at Risk

If a migratory bird species is listed under Schedule 1 of SARA and could be affected by operations, steps must be taken to ensure compliance with both SARA and the *Canadian Environmental Assessment Act* (CEAA).

The **Ivory Gull** (*Pagophila eburnean*) is listed as Endangered (Schedule 1) under SARA. The Ivory Gull is usually associated with pack ice and may be found in the project area during winter months. This species must be considered in the environmental assessment.

It should be noted that the SARA list may change through the life of the project. Species listed after project approval may require additional mitigations. The proponent is encouraged to annually update the list of SARA species potentially affected by the project.

Cumulative Effects Assessment to be included in the EA

The discussion of cumulative effects must be shaped primarily by the valued ecosystem components under consideration. While an accounting of past, present and future projects and activities is a starting point in a cumulative effects assessment, the analysis must consider how impacts from the proposed project will combine with impacts from other projects and activities. In the context of marine birds, for example, the proponent must consider how the project will contribute to existing impacts (e.g., increase in predation, loss of foraging habitat) on birds from other activities (e.g., other oil and gas activities, fishing, shipping).

Information Sources to be included in the EA

The proponent should be aware of Environment Canada's Eastern Canadian Seabirds at Sea (ECSAS) program. This program has conducted over 4000 surveys covering 7800 km of ocean track in the Newfoundland and Labrador offshore area since 2006. The most up-to-date data for the study area must be included in the EA. This information is available by contacting Carina Gjerdrum (Pelagic Seabird Biologist, EC-CWS) at carina.gjerdrum@canada.ca.

The ECSAS program can be cited as follow: Gjerdrum, C., D.A. Fifield, and S.I. Wilhelm. 2011. Eastern Canada Seabirds at Sea (ECSAS) standardized protocol for pelagic seabird surveys from moving and stationary platforms. Canadian Wildlife Service Technical Report Series No. 515. Atlantic Region. vi + 36 pp.

While an EA may conclude that the overall impact of a seabed survey on seabirds is relatively small, it remains important that the opportunity for this activity to impact federally-protected avian species be properly acknowledged in the EA. Accordingly, it is also expected that the proponent commit to all reasonable measures to mitigate the potential for such impacts to occur. These measures are outlined below.

Mitigations – General

Mitigation measures related to adverse effects, including cumulative effects, must be identified. Measures must be consistent with the MBCA and SARA and with applicable management plans, recovery strategies and action plans. Mitigation must reflect a clear priority on impact avoidance opportunities. The following specific measures must be among those which are considered in preparing a mitigation strategy:

Should storm-petrels or other species become stranded on vessels, the proponent is expected to adhere to the protocol *The Leach's Storm-Petrel: General Information and Handling Instructions* (attached). A permit will be required to implement this protocol and the proponent must be advised that such a permit must be in place prior to the initiation of proposed activities. Please note that MBCA permit applications can be obtained from EC-CWS via email at ec.scfatlpermis-cwsatlpermits.ec@canada.ca.

- It is expected that the proponent demonstrate how they will minimize or prevent the release of hazardous substances on board the vessel (e.g. chemicals for equipment repairs, fuels, lubricants) into the marine environment. Attention must be paid to impact avoidance and pollution prevention opportunities and a contingency plan must be developed to enable a quick and effective response in the event of a spill. Other management practices and preventative maintenance plans must be outlined such as a protocol to prevent spill events. This protocol must describe conditions that will allow the sampling program to be conducted without spill incidents (e.g., the range of environmental conditions within which the equipment can operate).

Mitigations - Data Collection

EC-CWS has developed a pelagic seabird monitoring protocol (attached) that is recommended for use by experienced observers on all offshore projects. A guide for pelagic seabirds of Atlantic Canada has also been attached, for assistance in identifying pelagic seabirds in the area.

A report of the seabird monitoring program, together with any recommended changes, is to be submitted to EC-CWS on a yearly basis. In an effort to expedite the process of data exchange, EC-CWS recommends that the data (as it relate to migratory birds or Species at Risk) collected from the monitoring program be forwarded in digital format to EC-CWS following annual program completion (Contact for data is Josh Mailhiot, EC-CWS Environmental Assessment Coordinator: Joshua.mailhiot@canada.ca). These data will be centralized for EC-CWS's internal use to help ensure that the best possible natural resource management decisions are made for these species in Newfoundland and Labrador. Metadata will be retained to identify source of data and will not be used for the purpose of publication. EC-CWS will not copy, distribute, loan, lease, sell, or use of this data as part of a value added product or otherwise make the data available to any other party without prior express written consent.

Mitigations - Oil Pollution Incidents

Strategies to minimize or prevent accidental or chronic releases must be emphasized in a mitigation program. Proponents are required to demonstrate response preparedness and to identify provisions for ensuring measures are implemented to eliminate or minimize resulting sheens or slicks in the event of accidents and malfunctions involving the release of oil. The following considerations are requested to be factored into the development of a response plan that would help reduce impacts on seabirds:

- measures for containing and cleaning up spills (of various sizes);
- equipment that would be available to contain spills;
- specific measures for the management of large and small spills (e.g., breaking up sheens);
- mitigation measures to deter migratory birds from coming into contact with the oil;
- mitigation measures to be undertaken if migratory birds and/or sensitive habitat becomes contaminated with the oil; and
- the type and extent of monitoring that would be conducted in relation to various spill events.

In order to assist proponents in preparing a plan for dealing with an oil spill which would potentially threaten migratory birds, EC-CWS has prepared a guidance document (attached), a sample protocol document used for oiled birds on beaches (attached), and a protocol for handling non-oiled but dead birds found on vessels (attached).

Effects of the Environment on the Project

Seismic operations will be somewhat sensitive to environmental conditions (e.g., wind, waves, ice). The environmental review should include considerations on how such conditions acting on the project could have consequences for the environment (e.g., increased risk of spills and impacts on valued ecosystem components). Marine weather information can be found on the Meteorological Service of Canada website at www.weatheroffice.gc.ca/marine. Additional information on regional climatology can be found at www.climate.weatheroffice.ec.gc.ca, or by contacting Environment Canada directly. Also, ice information can be found on the Canadian Ice Service website at www.ice-glaces.ec.gc.ca.

Effects of Accidents and Malfunctions

The mandatory assessment of environmental effects that result from accidents and malfunctions should include a consideration of potential spill events. The assessment should be guided by the need to ensure compliance with the general prohibitions against the deposit of a deleterious substance into waters frequented by fish (Section 36, *Fisheries Act*) and against the deposit of oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds (Section 35, Migratory Birds Regulations). In addition, it should be focused on potential worst–case scenarios (e.g., concentrations of marine birds, presence of wildlife at risk). Based on this analysis, the environmental review should describe the precautions that will be taken and the contingency measures that will be implemented to avoid or reduce the identified impacts.

Proponents are encouraged to prepare contingency plans that reflect a consideration of potential accidents and malfunctions and that take into account site-specific conditions and sensitivities. The Canadian Standards Association publication, *Emergency Preparedness and Response,* CAN/CSA-Z731-03, is a useful reference.

All spills or leaks of petroleum or other hazardous materials, including those from machinery, fuel tanks or streamers, should be promptly contained, cleaned- up and reported to the 24-hour environmental emergencies reporting system (St. John's 709-772-2083; other areas 1-800-563- 9089).

Fisheries and Oceans Canada

It is not clear what level of seismic survey is planned for 2016 as the project description indicates in Section 2.2.3 (page 7) that *"..In 2016 ~5,000 km^2 of 3D seismic data will be acquired…"* and then in Section 2.2.6 (page 7) it is noted that *"…in 2016 the proposed 2D/3D/4D seismic survey sound source…"* It should be clear within the subsequent project Environmental Assessment (EA) what type of seismic surveys will be proposed for 2016 and for which the EA will be based.

Based on review of the Project Description (Section 2.3 page 9) and the Draft Scoping Document (Section 5.2.12 page 7) it is not clear how (or if) monitoring and/or auditing of adherence to applicable mitigations committed to in the project EA will be undertaken. It is felt that this should be addressed within the project EA.

Department of National Defence

Please identify a specific individual or office to serve as a Point Of Contact (POC) for MARLANT queries and concerns;

Please ensure the appropriate Notice to Mariners will be issued for all underwater activities and any significant surface ventures, such as use of flares, buoys, and unconventional night lighting;

Please ensure the appropriate Notice to Airmen will be issued for all activities that could affect air safety, such as use of balloons, Unmanned Aerial Vehicles (UAVs) or tethered airborne devices; and

Please ensure engagement of CTF 84, through Director General Naval Strategic Readiness (DGNSR), to ensure de-confliction with possible Allied submarine activities.

Please see attached information regarding legacy sites and shipwrecks in the area of interest.

Groundfish Enterprise Allocation Council (GEAC)

Section 5.2.4 – Our membership has reported multiple impacts associated with seismic exploration operations. This has ranged from direct observation of tissue damage in flatfish to reductions in catch rates in areas proximal to exploration activities. We encourage this information to be included and expanded upon through focused study to support this proposal, especially as it pertains to planning survey implementation to minimize impacts to existing commercial operations and research vessel surveys.

Section 5.2.8, 5.2.9 and 5.2.10 – Similar to our request above, the presence of the vessel and the resultant acoustic noise derived from the seismic survey has been demonstrated to impact commercial catch rates of various species. A detailed mitigation plan is requested to be described within the EA with supporting rationale of why it will be effective. GEAC may be able to contribute to this discussion by providing confidential fishing records that demonstrate avoidance measures (both spatially and temporally) that we have found to be effective. Any mitigation being proposed should be extended to include DFO Research Vessel and industry supported research surveys.

Section 5.2.12 – We suggest that the effectiveness of the mitigation measures aimed at maintaining commercial catch rates through survey design be assessed through a follow up monitoring.