



Environment and
Climate Change Canada

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Environmental Assessment and Marine Programs
Environmental Protection Operations Directorate - Atlantic
Environmental Stewardship Branch
6 Bruce Street
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2 March 2020

Ian Murphy
Environmental Assessment Officer
Canada-Newfoundland and Labrador Offshore Petroleum Board
Fifth Floor, TD Place
140 Water Street
St. John's, NF A1C 6H6

Dear Mr. Murphy:

RE: Ephesus Prospect Controlled Source Electromagnetic Survey

EAS 20NL-007

As requested in your letter of 17 February 2020, Environment and Climate Change Canada (ECCC) has reviewed the Project Description and Draft Scoping Document of BP Canada Energy Group ULC (BP) for the proposed environmental program.

According to the Project Description, BP is proposing to conduct one controlled source electromagnetic (CSEM) survey in 2020 over Exploration Licences (ELs) 1145 and 1146 in the Orphan Basin. BP will contract Electromagnetic Geoservices ASA (EMGS) to conduct the CSEM offshore survey.

Prior to the start of the survey, an array of receivers would be deployed in a grid pattern on the seafloor. The CSEM source would be towed behind the survey vessel approximately 30 m above the seabed along predetermined tow lines. BP anticipates that towlines will range in length from approximately 100-150 km and survey line spacing will be approximately 3 km. The duration of the survey is estimated to be 45 days.

ECCC has reviewed the above-mentioned documents in accordance with its mandated interests and expertise stemming from its responsibilities under the *Migratory Birds Convention Act*, the *Species at Risk Act*, Section 36 of the *Fisheries Act*, and the *Canadian Environmental Protection Act*. The following comments and recommendations are intended to assist in further project planning and implementation.

REVIEW COMMENTS

APPLICABLE LEGISLATION

Fisheries Act

The proponent should be aware of the general applicability of Section 36(3) of the *Fisheries Act* (<http://laws-lois.justice.gc.ca/eng/acts/F-14/FullText.html>) 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.

Migratory Birds Convention Act

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). The list of species protected by the MBCA can be found at <https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/convention-act.html>. 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 MBR, no permits can be issued for the harm of migratory birds caused by development projects or other economic activities.

Furthermore, Section 5.1 of the MBCA describes prohibitions related to depositing 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.

Canadian Environmental Protection Act

The proponent should also be aware of the potential applicability of the *Canadian Environmental Protection Act* (CEPA) (<https://laws-lois.justice.gc.ca/eng/acts/C-15.31/>). 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 and Climate Change Canada (ECCC-CWS) has reviewed BP Canada Energy Group ULC's *Ephesus Prospect Controlled Source Electromagnetic Survey Project Description* and offers the following comments.

Please note, the following two documents are attached to this email for inclusion with the outgoing response:

- Environment and Climate Change Canada's Canadian Wildlife Service (2017). Birds and Oil – CWS Response Plan Guidance
- Environment and Climate Change Canada's Canadian Wildlife Service. (2016). Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada.

Additionally, ECCC-CWS requests that the C-NLOPB include Ross's Gull (*Rhodostethia rosea*), listed as Threatened on Schedule 1 of the Species at Risk Act, and Red-necked Phalarope (*Phalaropus lobatus*), listed as Special Concern on Schedule 1 of the Species at Risk Act to the "Species at Risk – Section 79(1) Notification of the Competent Minister" in the C-NLOPB's letter requesting expert advice.

General Comments:

Accidental Events

The proponent must ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the MBR, "no person shall deposit or permit to be deposited oil, oil wastes or any substance harmful to migratory birds in any waters or any area frequented by migratory birds." Biodegradable alternatives to petroleum-based chainsaw bar oil and hydraulic for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practices. Fueling and servicing of equipment should not take place within 30 meters of environmentally sensitive areas, including shorelines and seabird colonies.

Provisions for wildlife response activities should be identified in the Oil Spill Prevention and Response Plan to ensure that pollution incidents affecting Wildlife are effectively and consistently mitigated. The document "Birds and Oil – CWS Response Plan Guidance" is attached and is provided to offer guidance on the development of wildlife response activities.

The following information should be included in any Oil Spill Prevention and Response Plan and Wildlife Emergency Response Plan (WERP):

- 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).
- Information on the wildlife potentially at risk in the area.
- 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.

- The type and extent of monitoring that would be conducted in relation to various spill events.

The proponent is recommended to consult with ECCC-CWS when developing Oil Spill Prevention and Response Plans, specifically when developing the WERP. ECCC-CWS is available to review WERPs prior to their implementation.

Light Attraction and Migratory Birds

Attraction to lights at night or in poor visibility conditions during the day may result in collision with lit structures or their support structures, or with other migratory birds. Disoriented migratory birds are prone to circling light sources and may deplete their energy reserves and either die of exhaustion or be forced to land where they are at risk of depredation.

To reduce risk of harm of migratory birds related to human-induced light, ECCC-CWS recommends implementation of the following beneficial management practices:

- The minimum amount of pilot warning and obstruction avoidance lighting should be used on tall structures. Warning lights should flash, and should completely turn off between flashes.
- The fewest number of site-illuminating lights possible should be used in the project area. Only strobe lights should be used at night, at the lowest intensity and smallest number of flashes per minute allowable by Transport Canada.
- Lighting for the safety of the employees should be shielded to shine down and only to where it is needed.
- LED lights should be used instead of other types of lights where possible. LED light fixtures are less prone to light trespass (i.e. are better at directing light where it needs to be, and do not bleed light into the surrounding area), and this property reduces the incidence of migratory bird attraction.

Effects of the Project on Migratory Birds - Stranded Birds

Many migratory birds' foraging ranges (e.g. Leach's Storm-petrel) overlap directly with the Project Area and may be attracted to artificial lighting in the offshore environment. There is the potential for migratory birds to be attracted to and potentially be stranded on the survey vessels associated with the Project activities.

Should birds become stranded on the survey vessels, both during construction and operations phases, the proponent is recommended to adhere to Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada (attached). Systematic deck searches for stranded birds undertaken by trained observers are more effective as mitigation than opportunistic searches. These systematic searches should occur at least daily (preferably at dawn) on installations and supply vessels, with search efforts documented and observations recorded (including notes of efforts when no birds are found). ECCC has expertise in this area and should be consulted in the development of systematic monitoring protocols that are specific to each installation, vessel, etc. If species at risk are found stranded on the vessels, the proponent should immediately contact ECCC-CWS for further instructions. The contact is Sabina Wilhelm (ECCC-CWS Marine Issues Biologist) at sabina.wilhelm@ec.gc.ca or 709-764-1957.

A seabird handling permit will likely be required to implement the instructions in this reference document and the proponent must be advised that such a permit would have to be in place prior to the initiation of proposed activities. Please note that MBCA permit applications can be obtained from ECCC-CWS via email at ec.scfatlpermis-cwsatlpermits.ec@canada.ca.

Specific Comments:

Section 2.5 – Accidental Events (pg. 9)

The proponent should include a statement in this section to clarify that the timing and location of potential spills can affect the magnitude of the effect of accidental events on marine and migratory birds.

Cumulative Effects

The proponent has not included a discussion of cumulative effects in the project description. 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., attraction, increase in predation, loss of foraging habitat) on birds from other activities (e.g., other oil and gas activities, fishing, shipping). ECCC requests that the proponent update the cumulative effects section to include information relating to VEC-specific cumulative effects.

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 and Climate Change 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 (CSA) publication, *Emergency Preparedness and Response*, CAN/CSA-Z731-03¹, is a useful reference for this.

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).

I trust that this information will be of assistance in your review of this proposal. If you wish to discuss these comments or have further questions, please contact me at your convenience.

Yours
truly,

Original Signed by Jerry Pulchan

Jerry Pulchan
Environmental Assessment Analyst
Environmental Protection Operations Directorate

Attachments

cc: M. Hingston

¹ Canadian Standards Association (CSA). *Emergency Preparedness and Response: A National Standard of Canada* (CAN/CSA-Z731-03). Toronto: CSA, (R2014).

https://store.csagroup.org/ccrz_ProductDetails?viewState=DetailView&cartID=&sku=Z731-03&isCSRFlow=true&portalUser=&store=&cclcl=en_US