

From: McDonald,Derek [CEAA]
Sent: July 17, 2017 2:45 PM
To: Anita Perry (anita.perry@bp.com)
Cc: Pickard, Kate (Kate.Pickard@uk.bp.com); Handel, Jacob; Seeto,Philip [CEAA]
Subject: Scotian Basin Exploration Drilling Project - Information Requests
Importance: High

From: D. McDonald, Project Manager, Canadian Environmental Assessment Agency
To: A. Perry, Regional Manager, Nova Scotia, BP Canada Energy Group ULC

Dear Ms. Perry,

On December 23, 2016, the Canadian Environmental Assessment Agency (Agency) sent 85 information requests (IRs) to BP Canada Energy Group ULC (the proponent) based on the Agency's and other federal government experts' technical review of the Environmental Impact Statement (EIS) and associated EIS Summary for the proposed Scotian Basin Exploration Drilling Project. On February 17, 2017, the Agency sent an additional 68 IRs, based on its analysis of submissions received from the public and Indigenous participants. The proponent replied to all 153 IRs on March 31, 2017. The Agency has completed its review of the proponent's responses, has reviewed comments from federal departments and Indigenous groups, and has identified seven follow-up IRs, which are provided in the attached PDF document. Requests are denoted in bold type, and are denoted as follow-up IRs by the addition of the letter 'A' to the original IR number. The Agency requires acceptable responses to the IRs in order to complete its review of the EIS and to proceed with the preparation of its Environmental Assessment Report.

Upon transmission of this email, and consistent with the Agency's *Operational Policy Statement: Information Requests and Timelines* (<https://www.canada.ca/en/environmental-assessment-agency/news/media-room/media-room-2016/information-requests-timelines.html>) the legislated environmental assessment timeline will be paused. Once you have submitted complete responses to all IRs, the Agency will take a period of up to 15 days, with the timeline paused, to determine whether the requested information has been provided. Should the review require more time, after 15 days the timeline will resume. You will be notified of the outcome of that review when it has concluded. When the Agency determines the responses to be complete, the timeline will resume and the Agency will conduct a technical review of the responses.

The IRs and your responses will be made public on the Canadian Environmental Assessment Registry (CEAR) Internet site. Please note that the Agency may request further information at any time during the environmental assessment process.

Please confirm receipt of this message and contact me if you require further information.

Best Regards,
Derek McDonald, P.Eng.
Project Manager | Gestionnaire de projets
Canadian Environmental Assessment Agency - Atlantic Region | Agence canadienne d'évaluation
environnementale - région de l'Atlantique
Suite 200, 1801 Hollis Street | 1801, rue Hollis, bureau 200 Halifax, NS | Halifax, N-É B3J 3N4
derek.mcdonald@ceaa-acee.gc.ca
902.426.9458

Scotian Basin Exploration Drilling Project Information Requests (IRs), July 17, 2017

Arising from review of proponent responses to Agency IRs

INTRODUCTION

On December 23, 2016, the Canadian Environmental Assessment Agency (Agency) sent 85 information requests (IRs) to BP Canada Energy Group ULC (the proponent) based on the Agency's and other federal government experts' technical review of the Environmental Impact Statement (EIS) and associated EIS Summary for the proposed Scotian Basin Exploration Drilling Project. On February 17, 2017, the Agency sent an additional 68 IRs, based on its analysis of submissions received from the public and Indigenous participants. The proponent replied to all 153 IRs on March 31, 2017. The Agency has completed its review of the proponent's responses, has reviewed comments from federal departments and Indigenous groups, and has identified seven follow-up IRs, which are provided herein. Requests are denoted in **bold type**, and are denoted as follow-up IRs by the addition of the letter 'A' to the original IR number.

ACRONYMS AND SHORT FORMS

BP: BP Canada Energy Group ULC (proponent)

CEAA: Canadian Environmental Assessment Agency

CNSOPB: Canada-Nova Scotia Offshore Petroleum Board

DFO: Fisheries and Oceans Canada

ECCC: Environment and Climate Change Canada

EIS: Environmental Impact Statement

IR: Information request

MNNB: Maliseet Nation of New Brunswick

MTI: Mi'gmawe'l Tplu'taqnn Incorporated

SOCP: Statement of Canadian Practice with Respect to the Mitigation of Seismic Sound in the Marine Environment

SOP: Standard operating procedure

VSP: Vertical seismic profiling

TABLE OF CONTENTS

INTRODUCTION.....	1
ACRONYMS AND SHORT FORMS	1
INFORMATION REQUESTS (IRs)	3
Fish and Fish Habitat.....	3
IR 021 A (DFO-04)	3
Marine Mammals and Sea Turtles.....	3
IR 096 A (MNNB-11).....	3
Migratory Birds	4
IR 039 A (ECCC-IR-05).....	4
Accidents and Malfunctions.....	4
IR 063 A (ECCC-IR-19).....	4
IR 153 A (ECCC-IR-21, SFN-03, MTI-19).....	4
Follow-Up and Monitoring.....	5
IR 085 A (DFO-01)	5
IR 154 A (MNNB-45, MNNB-49, MTI-47, MTI-49).....	6
Appendix A – Canadian Environmental Assessment Act, 2012 Environmental Effects.....	7

INFORMATION REQUESTS (IRs)

Fish and Fish Habitat

IR 021 A (DFO-04)

In IR 021, the Agency required the proponent to describe the procedure planned for surveying the sea bed prior to commencing to drill, as well as the timing of the survey relative to drilling, how the information collected during the survey would be reviewed, by whom, and whether the proponent has a standard operating procedure (SOP) that would be followed to manage environmental sensitivity and trigger a move of the drilling location. DFO suggested that mitigation could be strengthened by having an individual trained in deep-water benthic environments review the seabed survey in real time and offered to provide guidance to this individual prior to surveying.

The IR response indicated that the proponent would review the video in real time using a team that would include, at a minimum, a remotely operated vehicle (ROV) operator, a shallow hazards specialist and a marine scientist. The proponent stated that if any features of interest, such as benthic communities, epifauna, debris or other anthropogenic features are identified, they would be investigated in greater detail to help the survey team with their assessment. However, some details of the original request were not provided.

Request:

Provide the standard operating procedure (SOP) to identify a threshold for environmental sensitivity that would trigger a move of the drilling location. If no such procedure exists, please provide a rationale.

Marine Mammals and Sea Turtles

IR 096 A (MNNB-11)

In IR 096, the Agency required the proponent to describe the anticipated effectiveness of visual observations and the use of passive acoustic monitoring (PAM) to detect marine mammals and turtles that may be in the area and could potentially be affected by underwater sound from vertical seismic profiling (VSP) operations for the Project. The Agency also required the proponent to describe how the observations of marine mammals and turtles could lead to the implementation of additional mitigation measures such as a shut-down, and to provide examples.

The proponent committed to planning and conducting its VSP activities in keeping with measures outlined in the *Statement of Canadian Practice with Respect to the Mitigation of Seismic Sound in the Marine Environment* (SOCP), which DFO has advised the Agency is the accepted industry-standard mitigation for offshore seismic survey operations. DFO also noted that the proponent has proposed a 650-metre observation zone, which is larger than the 500-metre minimum zone recommended in the SOCP. The SOCP and scientific publications on marine mammal monitoring can be found on DFO's Internet site at <http://www.dfo-mpo.gc.ca/oceans/publications/seismic-sismique/index-eng.html>.

After reviewing the proponent's response, MNNB requested evidence from peer-reviewed literature that demonstrates the effectiveness of the proposed monitoring activities in identifying the presence of

marine mammals and sea turtles or, if such evidence is unavailable, a follow-up program to determine the effectiveness of the mitigation.

Request:

Identify any studies on the effectiveness of the SOCP as mitigation, including estimated observation detection rates. Provide a summary of the principal findings and explain whether any changes are required to the mitigation.

Migratory Birds

IR 039 A (ECCC-IR-05)

In IR 039, the Agency required that the proponent specify all areas of high environmental sensitivity that have been identified in relation to helicopter flight paths and describe the factors that influence helicopter operators' ability to avoid them. The Agency also required the proponent to describe the potential environmental effects and anticipated frequency of situations where sensitive areas cannot be avoided. The Agency requires the following clarifications.

Request:

- **Clarify the means by which helicopter pilots would be made aware of sensitive areas to be avoided (i.e. buffers identified in section 7.4.8.2 of the EIS) except in emergency situations.**
- **Clarify how federal authorities would be advised, in a timely manner, of incidents where bird colony buffers are not maintained.**

Accidents and Malfunctions

IR 063 A (ECCC-IR-19)

In IR 063, the Agency had required outlines of each of the Incident Management Plan (IMP), Spill Response Plan (SRP), and Environmental Protection Plan (EPP) and an accounting of key commitments, including those related to incident prevention, emergency preparedness, mitigation, and follow-up. The Agency notes that the EIS Guidelines stated that "at a minimum, an outline of the emergency response plan (for spills).....is required in the EIS", but that an overview of the SRP was provided, along with descriptions of the IMP and EPP, but not an outline.

Request:

Provide an outline of the SRP, such as an annotated Table of Contents.

IR 153 A (ECCC-IR-21, SFN-03, MTI-19)

In IR 153, the Agency required additional information concerning the proponent's estimate that a well could be capped between 13 and 25 days after an incident, and asked if other means were considered for mobilizing a capping stack to the scene of a blowout more quickly. In reviewing the proponent's response, ECCC noted the following statements (in part (a) of the response): "if a blowout incident were to occur, BP would immediately commence the mobilization of the primary capping stack from Stavanger", and "a Blowout Preventer (BOP) intervention response is estimated to take between two

and five days. BP would exhaust all options for direct BOP intervention before resorting to capping stack deployment.” It is not clear whether the time referred to is for the length of time to travel from Norway by ship or installing the capping stack on the well.

Considering that residual adverse environmental effects of a blowout incident are predicted for migratory birds and special areas, and given the amount of time that it would take to get the capping stack from Stavanger, Norway to offshore Nova Scotia, the Agency requires clarification of the terms “deployment and “mobilization”.

Request:

Confirm that deployment refers to installing the capping stack on the well (and not leaving from Norway by ship) and that the stack would be mobilized immediately regardless of other efforts to regain well control.

In its response, the proponent also stated that “capping stacks are stored in central locations around the world, and are maintained so they can be ready for immediate use and onward transportation by sea and/or air in the event of an accident.”

Request:

Clarify why a capping stack could not be stored at a location, such as in Atlantic Canada, that would allow it to be more rapidly available for deployment.

Follow-Up and Monitoring

IR 085 A (DFO-01)

In IR 085, the Agency required additional information on proposed follow-up measures related to underwater noise, to satisfy information requirements set out section 8 of the EIS Guidelines, as applicable.

In reviewing the proponent’s response, DFO noted the proponent’s statements that it “...will finalize the scope of the acoustic study following discussions with the CNSOPB to identify potential additional objectives in consideration of lessons learned from the underwater sound monitoring program that was undertaken for the Shelburne Basin Venture Exploration Drilling Project” and “BP will submit an acoustic monitoring plan, detailing the specifics of this follow-up program, to the CNSOPB at least 30 days prior to the commencement of the drilling program. The data captured as part of the program will be analysed and a summary report of results, including results of propagation loss modelling, will be submitted to the CNSOPB following completion of the field program and modelling. The CNSOPB will determine the method and extent of distribution of results.”

DFO has advised that, as the federal regulator and expert department with specialized knowledge on underwater acoustics, marine mammals and species at risk, it will be the principal advisor to the CNSOPB on these matters. To help expedite the development of the Marine Mammal Monitoring Plan, and recognizing the potential for effects from VSP surveys, the Agency recommends that the proponent consult DFO when formulating the plan. DFO also recommends that certain key elements be present in

the Marine Mammal Monitoring Plan, and has provided these to the Agency, as articulated in the request below.

Request:

Provide a commitment that the Marine Mammal Monitoring Plan will include details of the VSP survey method (zero offset or walkaway) and specific details on marine mammal observation and mitigation that will be employed during the survey.

IR 154 A (MNNB-45, MNNB-49, MTI-47, MTI-49)

In IR 154, the Agency required that the proponent provide additional information about the follow-up program, specifically for verifying its predictions about effects on the current use of lands and resources for traditional purposes and on Indigenous commercial fisheries. It also required clarification of how qualitative and quantitative assessment could be used to measure any changes in catch rates.

In reply, the proponent stated that it does not propose follow-up for potential effects of routine activities, due to its high confidence that no significant adverse effects are likely to occur, but stated that follow-up and monitoring may be required after an oil spill, in the unlikely event that one occurs. The response also stated that since landings data is not accessible by community for privacy reasons, no quantitative data is available to measure changes in catch rates on a community basis; the proponent has therefore adopted worst-case assumptions and predicted significant environmental effects and commitments for mitigation and emergency response in the event of a large spill as a means of addressing any uncertainties with respect to potential adverse effects.

MNNB commented that without a comprehensive understanding of the Indigenous fishery economy and use of resources for traditional purposes, it will be difficult to verify the proponent's prediction that no significant adverse effects will occur. MNNB is concerned that regulations do not mention a mechanism for reporting the results of environmental monitoring to concerned Indigenous communities. They requested more details on the Fisheries Communications Plan as an effective communications tool and to ensure that there are no significant adverse effects to Indigenous commercial fisheries and their local economies.

Request:

Provide an outline of the proposed Fisheries Communication Plan and explain how it will provide a framework for ongoing engagement with Indigenous and non-Indigenous fisheries organizations during the Project (before, during and at the conclusion of drilling operations). Specify any opportunities for two-way communication, such as regular meetings, or a toll-free number for reporting issues that may arise, so it is apparent how any concerns from fisheries organizations will be received and considered.

Appendix A – Canadian Environmental Assessment Act, 2012 Environmental Effects

5 (1) For the purposes of this Act, the environmental effects that are to be taken into account in relation to an act or thing, a physical activity, a designated project or a project are

(a) a change that may be caused to the following components of the environment that are within the legislative authority of Parliament:

- (i) fish and fish habitat as defined in subsection 2(1) of the *Fisheries Act*,
- (ii) aquatic species as defined in subsection 2(1) of the *Species at Risk Act*,
- (iii) migratory birds as defined in subsection 2(1) of the *Migratory Birds Convention Act, 1994*, and
- (iv) any other component of the environment that is set out in Schedule 2;

(b) a change that may be caused to the environment that would occur

- (i) on federal lands,
- (ii) in a province other than the one in which the act or thing is done or where the physical activity, the designated project or the project is being carried out, or
- (iii) outside Canada; and

(c) with respect to aboriginal peoples, an effect occurring in Canada of any change that may be caused to the environment on

- (i) health and socio-economic conditions,
- (ii) physical and cultural heritage,
- (iii) the current use of lands and resources for traditional purposes, or
- (iv) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.

5 (2) However, if the carrying out of the physical activity, the designated project or the project requires a federal authority to exercise a power or perform a duty or function conferred on it under any Act of Parliament other than this Act, the following environmental effects are also to be taken into account:

(a) a change, other than those referred to in paragraphs (1)(a) and (b), that may be caused to the environment and that is directly linked or necessarily incidental to a federal authority's exercise of a power or performance of a duty or function that would permit the carrying out, in whole or in part, of the physical activity, the designated project or the project; and

(b) an effect, other than those referred to in paragraph (1)(c), of any change referred to in paragraph (a) on

- (i) health and socio-economic conditions,
- (ii) physical and cultural heritage, or
- (iii) any structure, site or thing that is of historical, archaeological, paleontological or architectural significance.