

Nexen Energy ULC Eastern Newfoundland Offshore Geophysical, Geochemical, Environmental and Geotechnical Program (2018 – 2027) Environmental Assessment Addendum (Amec Foster Wheeler March 2018)

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## **GENERAL COMMENTS**

### **Groundfish Enterprise Allocation Council-Canadian Association of Prawn Producers (GEAC-CAPP)**

We were disappointed by the tone of their response, which does little to promote a "common interest" relationship between our respective industries involved in offshore waters off Newfoundland and Labrador.

The spatial extent of the program precludes the broadly stated impact assessment presented by the EA and this addendum. We suspect that if we were to identify a specific point within the study area, Nexen would be unable to provide any precision on the actual 'values' contained therein (ranging from phytoplankton to larval fish and extending to top predators), because of the paucity of information that is available on a local scale. With such limited information, "likelihoods" cannot be legitimately claimed.

Given that knowledge about seismic impacts is also very limited, we suggest there is insufficient information to be able to legitimately claim "no likely impact". One only has to conduct a quick literature scan to realize that localized impacts to the food web can be extremely significant. Multiply this potential effect across the entire study area and more questions than answers emerge.

We must take issue with the following statement in the addendum: "*In particular, it is unlikely that any such behavioural effects would result in any "detectable reduction in the overall economic returns generated from fisheries and/or other marine activities undertaken within the Study Area over one or more years" (Section 5.9.1).*". In the experience of our member companies, seismic activity has indeed forced the displacement of vessels from otherwise productive fishing grounds, for weeks if not months at a time, severely reducing their economic performance. Nexen's decision to make such a statement erodes faith that the overall assessment is complete, and suggests that further refinement is necessary prior to permitting any activity.

We must also make mention of the FLO offered by Nexen. Our concern is not with a seismic vessel 'meeting' or 'sighting' our vessels, but that our actual fishing results may be disrupted by seismic operations in the general vicinity. This understanding appears to have been lost, and we would suggest that Nexen has either not considered our concerns or has simply deflected them. Either is most troubling. We suggest that a standardized impact avoidance protocol be negotiated between Nexen and fishing companies who will be operating in the same vicinity.

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We reiterate our belief that the precautionary approach is not being followed here, and that significant work must be done to gain the trust of the year-round harvesting sector, prior to seismic activity being undertaken in areas that have provided valuable and sustainable economic contributions to this sector of the fishing industry.

**Fish, Food and Allied Workers (FFAW)**

While the proponent addressed a communication concern regarding the role of the Fisheries Liaison Officer (FLO) on page 7 of the addendum, they suggested “the use of a standby or guard vessel to scout for hazards and for communicating with active fishers in the area” as a planned mitigation measure on page 34. The FLO is best placed on the seismic survey vessel as the primary at-sea liaison between the commercial fishing industry and the seismic survey program.

We strongly disagree with the proponent’s assessment that “the presence of seismic sound energy...is (not) likely to have a detectable (economic) effect upon the fishing industry in the Study Area” (page 35). There have been numerous reports from fish harvesters to the contrary.

It has been documented in the peer reviewed literature that seismic survey activity may result in behavioural changes among fish species. While these changes have been reported to be temporary, avoidance, startle responses and changes in swimming speed and direction can all have an impact on commercial fishing activities taking place at finite times (i.e. seasons) in finite spaces (i.e. fishing areas). The fishing industry has already witnessed catch rates drop immediately after a seismic vessel has entered an area where fishing is taking place, directly impacting economic return.

We therefore take exception to the proponent’s definitive statement that it is unlikely behavioural effects would result in any “detectable reduction in the overall economic returns generated from fisheries...over one or more years” (pages 4 and 35).

The fishing industry continues to advocate for more research on impacts of seismic activity on important commercial species including shrimp, crab, turbot and Atlantic cod. These studies need to include commercial catchability in order to substantiate concerns from harvesters in Newfoundland and Labrador.

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## **SPECIFIC COMMENTS**

### **Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB)**

**Section 5.1 Project Components, Activities and Key Environmental Considerations, pg 254 and pages 10 and 11 of Addendum** – The response to the original comment describes two concurrent seismic surveys, a “regional-scale” 2D seismic survey and a narrowly spaced (high resolution) 2D or 3D seismic survey. Please confirm that this “example” is the maximum number and type of seismic surveys assessed and contemplated.

**Section 2.3 Seismic Surveys, pg 11 and page 8 of Addendum** – For clarity, if “...the number of streamers increase to beyond the estimated 15 streamers noted above...” Nexen will be required to discuss this with the C-NLOPB prior to submitting an amendment.

Future EA Updates outline the proposed activities, confirm that the proposed program activities fall within the scope of the previously assessed program, and indicate if, with this information, the EA predictions remain valid. In addition, EA Updates also provide information regarding the adaptive management of requirements of the Species at Risk Act (SARA) into program activities (e.g., introduction of new species or critical habitat to Schedule 1; additional mitigations; implementation of recovery strategies and/or monitoring plans).

### **Fisheries and Oceans Canada (DFO)**

**Section 4.2.4.1 Canadian (Federally) Identified and Designated Areas, Fisheries Closure Areas within Canada's Exclusive Economic Zone, pg 158 and pages 14-18 of Addendum** - Crab Fishing Area 8A (Southern Avalon Exclusion Zone) and the Nearshore Exclusion Zone should also be listed in Tables 2.1 and 2.2. For consistency it should be noted that there are two exclusion zones for Crab Fishing Area 9A.

**Section 5.3.2 Required and Planned Mitigation Measures, page 261 and pages 18-19 of Addendum** - Representatives should be trained in identification of sensitive benthic species (i.e. coral and sponge species) and not limited to “...any coral structures...”

**Section 5.8.3 Environmental Effects Assessment. pages 311-315, regarding corals and sponges, and last sentence, paragraph 1, page 31 of Addendum** - The comment was addressed; however, a reference should be provided.