

February 11, 2008

Canada-Newfoundland and Labrador Offshore Petroleum Board
5th Floor, TD Place
140 Water Street
St. John's, NL
A1C 6H6

Ref. No.: HUS-CPB-ED-LTR-00067

Attention: Ms. Elisabeth Young

Dear Ms. Young:

**Subject: Response to: Husky Energy Delineation/Exploration Drilling Program
for Jeanne d'Arc Basin Area 2008-2017, Environmental Assessment
Report**

This correspondence is in reference to your letter to Husky Energy dated 21 January 2008. The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) requested that Husky address certain comments on the "Husky Energy Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area 2008-2017 Environmental Assessment Report".

Attached are the C-NLOPB's specific comments and Husky's associated responses.

Should you have any queries regarding this letter, please do not hesitate to contact the undersigned at 724-4019 or Francine Wight at 724-3965.

Yours sincerely,


HUSKY OIL OPERATIONS LIMITED



Don Williams
Manager, Health, Safety, Environment and Quality

fw/dw/pk

cc: Francine Wight, Steve Bettles – Husky Energy
Dave Burley, Kim Coady – C-NLOPB

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initials: 

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CNLOPB Comment: The scope of the project, as described in the EA Report, appears to be limited to one drilling unit operating within the Study Area. The EA report has not considered the environmental effects of the Proponent operating more than one drilling unit concurrently within the Study Area. More than one drilling unit operating concurrently would be outside the scope of the project, and therefore not captured within the above referenced environmental assessment report.

Husky Energy Response: The following text should be added to Section 3.7 (Project Components/Structure/Activities) of the EA.

“Over the temporal scope of the Project (2008-2017), there is the possibility that Husky will use two MODUs for concurrent exploration/delineation drilling in the Project Area.”

The following text should be added to the first paragraph of Section 7.1 (Potential Zones of Influence) of the EA.

“There is a possibility that Husky may use two MODUs for concurrent exploration/delineation drilling in the Project Area at some time over the temporal scope of the Project (2008-2017). Therefore, the routine activities described in the following sections could double in magnitude if both rigs were operating in exactly the same time frame and in close proximity illustrating the worst case scenario.”

The second sentence of Section 7.1.1 (Presence of Structures/Safety Zone) of the EA should read as follows.

“The proposed safety zone for drilling operations could extend as much as 1.65 km from the drill centre for a MODU. This represents 50 m beyond the anchor locations of a new age MODU with a larger anchorage area (i.e. 1600 m). A safety zone for a jack-up rig is approximately 500 m from the peripheral of the platform.”

The following text should be added to Section 7.1.1 (Presence of Structures/Safety Zone) of the EA.

“Under the scenario of two MODUs concurrently drilling exploration/delineation wells in the Project Area, the maximum safety zone area at any one time attributable to delineation/exploration drilling would be 17.1 km².”

The following text should be added to Section 7.1.3 (Drilling Muds) of the EA.

“In using the scenario of two MODUs concurrently drilling exploration/delineation wells in the Project Area, several assumptions can be made. Assuming that mud and cuttings will cover an area of the seabed of about 0.8 km² to a thickness of at least one centimeter per well, an approximate total of 1.6 km² of fish habitat could be covered by mud and cutting. Therefore an area of 1.6 km² could be smothered within the Project Area due to delineation/exploration drilling by Husky representing about 0.0035% of the total Project Area.”

The following text should be added to the first paragraph of Section 7.2 (Potential Effects of Routine Activities) of the EA.

“In assessing the possibility that Husky may use two MODUs for concurrent exploration/delineation drilling in the Project Area at some time over the temporal scope of the Project (2008-2017), the residual effects of the various routine activities associated with the concurrent drilling of two exploration/delineation wells does not differ from the assessment of the residual effects of the various routine activities associated with the drilling of only one exploration/delineation well at any one time. Therefore, there is no difference in the effects assessment as reflected by the criteria or the residual effects on Valued Ecosystem Components (VECs) of activities associated with the concurrent operation of two MODUs in the Project Area are predicted to be *not significant*.”

CNLOPB Comment: With regard to cumulative effects, the EA should consider the environmental effects that are likely to result from the proposed project in combination with other projects or activities that have been or will be carried out. The EA report does not address the within project cumulative effects of more than one drilling unit active in the Study Area. In addition, it does not address the between project effects of more than one drilling program in operation.

Husky Response: Section 6.6.5 (Cumulative Effects) in Section 6.0 (Effects Assessment Methodology) and Tables 7.5 to 7.9 in Section 7.0 (Routine Project Activities) list various projects and activities that are considered in addressing both between-project and within-project cumulative effects. If we take into consideration the potential for two MODU's to be operating, the following bulleted item should be added to Section 6.6.5.

- “Within-projects and between-project cumulative effects of the deposition of drilling mud and cuttings on the seafloor around a well, and of exclusion/safety zones associated with production operations and exploratory MODUs will be quantitatively expressed, both in terms of absolute areas and as percentages of the total area of the Project Area.”

The following text should be added to Section 7.2.1.2 (Cumulative Effects) in Section 7.2.1 (Fish Habitat), and Section 9.2 (Cumulative Effects of the Project).

“The following quantification considers within-project and between-project cumulative effect of the deposition of drilling mud and cuttings on the seafloor around a well on the fish habitat VEC under the worst-case scenario of three exploratory wells being drilled concurrently in the Project Area; two by Husky using two MODUs and one by StatoilHydro using one MODU. Assuming that mud and cuttings will cover an area of the seabed of about 0.8 km² to a thickness of at least one centimeter per well, an approximate total of 2.4 km² of fish habitat will be smothered at the same time within the Project Area. The 2.4 km² of seabed represents about 0.0052% of the total area of the Project Area.”

“Regardless of the possibility that Husky will use two MODUs for concurrent exploration/delineation drilling in the Project Area over the temporal scope of the Project (2008-2017), both within- and between-project cumulative effects associated with the deposition of drilling mud and cuttings on the seafloor are predicted to be *not significant*.”

CNLOPB Comment: Also, the cumulative effects assessment does not assess the effect of exclusion zones of three production operations and exploration activities within, and adjacent to, the Study Area in terms of loss of access to commercial fishing grounds.

Husky Energy Response: The following text should be added to Section 7.2.3.2 (Cumulative Effects) in Section 7.2.3 (Commercial Fisheries), and Section 9.2 (Cumulative Effects of the Project).

“The following quantification considers between-project cumulative effect of exclusion/safety zone area associated with delineation/exploration drilling and production operations within the Project Area.

Assuming worst-case (i.e., three semi-submersibles with 1,600 m anchor chains concurrently drilling three wells in the Project Area, two for Husky and one for StatoilHydro), the total area of the three delineation/exploration drilling rig safety zones would be $3 \times (\pi \times r^2) = 3 \times (3.142 \times 1.65 \text{ m} \times 1.65 \text{ m}) = 25.7 \text{ km}^2$. The safety zone extends 50 m beyond the anchor pattern.

Areas of the exclusion/safety zones associated with the existing production operations in the Project Area are as follow. The approximate areas of the White Rose safety zone including the proposed new drill centres, the Terra Nova exclusion zone and safety zone and the Hibernia safety zone are 95 km^2 , 14 km^2 and 255 km^2 (Total: 269 km^2) and 6 km^2 , respectively. This amounts to a total of 370 km^2 or 0.80% of the Project Area. The percentage of the Project Area accounted for by total worst case scenario (25.7 km^2) of safety zones for three rigs concurrently drilling exploration wells is 0.06%.

Therefore, the total area of the safety zones (exclusion zone plus safety zone in the case of Terra Nova) associated with three MODUs concurrently drilling exploratory wells and the existing production operations in the Project Area is approximately 395.7 km^2 . This area represents 0.86 % of the total Project Area ($46,000 \text{ km}^2$).”

Considering that the absolute total area of Safety/Exclusion Zones is small relative to both the Project Area and the ‘traditional fishing ground’ areas within the Study Area, and that the actual area from which fishers are truly excluded is even smaller (i.e., exclusion zone at Terra Nova), both within- and between-project cumulative effects associated with ‘fishing grounds availability’ are predicted to be *not significant*.