

Some Comments on the

“Environmental Assessment of StatoilHydro’s Jeanne d’Arc Basin Area Seismic and Geohazard Program, 2008-2016”

February 27, 2008

Seismic surveys have become very active in Newfoundland waters over the past few years and it appears that this trend will continue. The associated environmental assessments are becoming somewhat repetitive and this is perhaps to be expected since the nature of these surveys is essentially the same each year. I provide the following comments as constructive criticism directed at the Board (CNLOPB), the proponent, and the environmental consultants.

Is less than 10% negligible?

I have trouble with the designation of impacting 10% of a population as representing a low effect. I recognize that the designation has been in use and there is something to be said for consistency. Furthermore, it is a quantitative reference point which makes assessing a qualitative concept very useful. I feel that in this case, the criteria in use are inconsistent with the qualitative descriptor. Suppose that a new factory was proposed to be built in St. John’s and that up to 2,000 people of the approximate 200,000 population would be inconvenienced (if not killed) by the factory. That impact would not be identified as “negligible”, why should it be considered negligible in the context of an environmental assessment? I believe it would be reasonable to reduce the 10% to something more like 1%. Another aspect to this issue is that, while 10% is considered low, more than 25% is considered high.

What magnitude of impact would be considered unacceptable?

Study area, Project area, or Seismic survey (2008)

On page 150, in discussing the possible disturbance effects from project activity on toothed whales, the area impacted is identified as ranging from anywhere between 10 to 1000 km². In fact, my own rough calculation on this impact zone came in at 600 km² and given the uncertainties in these estimates, I believe that this range is defensible. What I do not understand is how this number is then converted into a “negligible” impact. My interpretation is that this area is compared to the overall study area (about 222 km by 185 km or about 41,000 km², from page 6 of the document). The area against which the area being impacted is being compared should be clearly identified here.

The choice of a large study area is laudable in the context of identifying the widest range of ecosystems or environmental conditions that might be impacted. However, given that

the study area dimension defines a metric against which the area of impact is judged, a large study area means that only the very largest of impacts could ever be judged as “significant”. In the present case, the 1000 km² that might be impacted by the seismic survey is only 2.5% of the 41,000 km² study area and the impact is considered “negligible”. However, given that the operating area identified for 2008 is restricted to ELs 1100 and 1101 that have an area of about 1000 km² (estimated from figure 1.1), the 1000 km² impacted area is in fact about 100% of the survey area anticipated for 2008. Is this a negligible impact?

In fact, a more appropriate reference area in this context would be one determined by biological characteristics of the species in question.

Cumulative Impact

The footprint of a seismic survey is on the order of 1000 km². While it is not clear how many surveys might be conducted on the Grand Banks in a season, it appears that at the moment, two or three seems a possible number. That would suggest that on an annual basis, 2000 to 3000 km² of the Grand Banks are impacted. At what point does this cumulative impact become recognized and how will a mitigation be introduced? With this proposal, StatoilHydro has laid claim to 1000 km²/year for an 8 year period.

It is not clear how the proponent can evaluate cumulative impact with limited knowledge of other projects that might be introduced in the future. I believe it would be useful for the Board to identify a maximum allowed density of seismic operations so that proponents can gauge their contribution to the overall “allowed” impact.

Recognition for support

I found the following statement taken from page 41 of the document inappropriate:

It is noteworthy that the comprehensive summary report on deep-water corals and their habitats off Atlantic Canada (Mortensen et al. 2006) was made possible through the financial support of the oil and gas industry through the Environmental Studies Research Fund (ESRF).

I appreciate the significant funding contribution that was provided in this case and believe that the ESRF has enabled meaningful and needed science. But, in my mind this statement at this point in the document actually takes away from the spirit of the contribution. I am familiar with the specific research and recognize it to be sound but a reader without such familiarity might question the results being presented. There are numerous results presented throughout the document that have been made possible by the Government of Canada (for example). If the proponent should interrupt the text in the middle of an environmental assessment document and take credit for a funding

contribution, perhaps the text should also pause to recognize the Canadian taxpayers whenever a scientific study is referenced.