

Hebron Public Review Commission

Submission by
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- You are most likely aware that with each past project new shuttle tankers have been delivered.
- Hibernia - Kometik, Mattea
- Terra Nova – Vinland (in 2010 the contract expired)
- White Rose - Heather Knutsen & Jasmine Knutsen

- From the Hebron Development Plan –
“Initially the existing tanker fleet operating on the Grand Banks will likely be used...” (ref: Development Plan: p. 9-26, 9.4.4)
- In fairness the Development Plan 9.4.4 goes on to state “suitability of the tanker fleet will be verified during detailed designed”.

- It would be reasonable for this statement to be accompanied by a reference to a standard or criteria that provides guidance as what defines “suitability”.
- In this case “suitability” could reference tonnage or cargo capacity, age of vessel, remaining structural fatigue life, etc.

- I note that Statoil does have a governing document called “Minimum Technical and Operational Requirements for Offshore Loading Shuttle Tankers”. This document describes the minimum requirements for shuttle tankers operating at Statoil operated fields.
- Given the age of the industry operating on the Grand Banks, it would be reasonable for the proponents to provide minimum criteria for shuttle tankers used for Hebron.

- Disposal of Transport Tankers Ballast Water - Development Plan p.9-26, par. 9.4.5.
- This section has omitted / failed to mention that tankers are designed to load heavy weather ballast into cargo tanks. Although this operation occur very infrequently; given the environment these tankers will be operating in it is reasonable to assume that a tanker could be required to load heavy weather ballast.

- The likelihood of a tanker loading heavy weather ballast is subject different variables such as sea conditions, the tankers ballast capacity and engine horsepower & rudder surface area.
- The plan does not mention how heavy weather ballast would be disposed of or any mitigating measures that would decrease the likelihood of a tanker loading heavy weather ballast.
- As per my previous comment the proponents have not given a definition of “suitability” with regards to shuttle tanker requirements.

- Offshore Loading System - Development Plan
p. 9-24, par. 9.4.1
- The Development Plan states that the Offshore Loading System is designed for an in service life of 30 years.
- It would be interesting to know if any experience gained from Hibernia's system will be used for the design of the system for Hebron. 30 years is a long time to get out of this type of system given the operating environment.

- Offshore Pipelines Conceptual Design – Development Plan p. 9-24, par 9.4.2.3 The conceptual design basis for the offshore pipelines will be similar to the Hibernia OLS. Given the crude oil characteristics are there any additional design requirements for this system? What happens to the crude parked in the sub sea line?
- Although the Development Plan does include crude oil characteristics, (pour point & wax content) & wax management processes, etc. It does not state if pre-cautions are required for crude parked in the sub-sea line

- The Offshore Loading System Design Pressure – Development Plan p.9-24, par 9.4.2.5 does state consideration for gelled pumping requirements however additional precautionary measures such as the installation of flow meter on the tankers maybe worthy of consideration.