



June 23, 2022

Paul Alexander, Chief Safety Officer
Canada-Newfoundland and Labrador Offshore Petroleum Board
240 Waterford Bridge Road
The Tower Corporate Campus – West Campus Hall
Suite 7100
St. John's, NL
A1E 1E2

RE: Volume of Stored Explosives

File No: 358

Dear Mr. Alexander,

Hibernia Management and Development Company Ltd. (HMDC) is requesting Chief Safety Officer approval to increase the total explosives onboard Hibernia to a maximum quantity of 200 kg for the time periods that well perforation activities take place, in lieu of the maximum quantity of 75 kg prescribed in Section 153 (1) (c) of the Canada–Newfoundland and Labrador Offshore Area Occupational Health and Safety Regulations.

Background/Rationale

Section 153 (1) (c) of the OH&S Regulations states that every employer must ensure *“that the quantity of explosives stored at the workplace is kept to a minimum and does not, in any event, exceed 75 kg unless otherwise authorized by the Chief Safety Officer”*. Hibernia has been operating since April of 1997 with the approval (RQ 229.2) to temporarily store up to 200 kg of explosives for periods when perforating activities take place. When perforation activities are not taking place, the amount of explosives on board Hibernia will not exceed the 75 kg limit.

The average perforating interval for early Hibernia wells is 175 metres in length, and the quantity of explosives required to conduct this operation is approximately 200 kg, including any contingency for gun failure or damage. In the later wells which will have higher angles or be horizontal through the reservoir, perforating intervals could be significantly longer. Therefore, it is clear that the current limit of 75 kg of explosive material is insufficient for Hibernia perforation operations, thus our request to continue to allow the necessary amount of explosives, up to a maximum of 200 kg, on a short-term basis (perforating activities).

Mitigations

The practice of making up guns onshore and shipping them to the location just in time to start the perforating operation is an industry wide practice, accepted as the safest and most effective method of performing the operation. The guns are shipped in custom built gun racks designed to protect them safely during transportation and storage, the guns will remain in these racks until immediately prior to them being armed and deployed into the well. It should be noted that the perforating guns are shipped without detonators in place, and the detonators are installed in the guns immediately prior to deploying them in the well. It is our opinion that the technique we use on Hibernia is safe, practical and effective and there is no practical alternative.

All perforating operations including transportation and storage will be performed in strict accordance with our vendor's procedures. Unplanned detonation of explosives could occur due to exposure to heat or severe impact, mishandling or detonation by radio signal when armed, the following steps will be taken to mitigate these risks:

- The perforating guns will remain in their custom built transportation and storage racks until they are ready to be deployed in the well
- The guns will be stored in areas within easy reach of the cranes such that they can be moved quickly in the event of a fire in their vicinity.
- No other platform equipment will be lifted directly over the storage and transportation racks whilst the guns are in them
- A radio silence procedure will be implemented and adhered or safe perforating systems will be used where appropriate to eliminate the risk of detonation by radio signal during perforating operations.
- The supplier's explosives handling procedures which are in compliance with regulatory requirements and standards will be adhered to at all times.

Previous RQ Conditions

HMDC will continue to follow the previous conditions listed in RQ 229.2, updated below to reflect the RQs replacement with this letter:

1. The practices and procedures explained in the mitigations above will be strictly followed
2. The amount of explosives shipped to the platform must not exceed the amount necessary to complete a specific job requirement.
3. Shipments must be timed such that these explosives remain on the transport vessel and installation for as short a period as reasonably practicable
4. The total amount of explosives available on the platform must be reported to the Board on a daily basis via the daily drilling report.

Finally, this request has been reviewed with the platform workplace committee and we have received their concurrence.

If there are any questions, or if additional information is required, please contact [REDACTED]
[REDACTED]
[REDACTED]

Sincerely,

[REDACTED]

HMDC President

Attachments

cc: Central Files w/attachments
CNLOPB [REDACTED]