

<u>Chief Safety Officer Decision</u> (Application for Substitution, Equivalency, or Exemption)

Date: 36 May 3017

C-NLOPB Reference: 2017-RQ-0047

Applicant: Husky Energy

Applicant Reference: RQF-40.2

Installation Name: MODU Henry Goodrich

Authority: Canada-Newfoundland Atlantic Accord Implementation Act, subsection

151(1)

Canada-Newfoundland and Labrador Atlantic Accord Implementation

Newfoundland and Labrador Act, subsection 146(1)

Regulation: Subsections 8(1) (2) (3) & (8) of the Newfoundland Offshore Petroleum

Installation Regulations

Decision:

The Chief Safety Officer concurs with the following in respect of the Applicant's proposal to conduct hot work operations onboard the *MODU Henry Goodrich*.

In all circumstances, hot work should be deferred to periods when the installation is not connected to the well unless otherwise permitted in this decision. If hot work is conducted it must follow a risk assessment process with appropriate mitigations/precautions in place. Hot work must not be conducted in the vicinity of other sources of ignitable vapor and the fire suppression systems and fire and gas detection systems must be fully functional.

For exploration wells specifically, hot work scope must be critical in nature as defined in this RQ.

1.0 Development Wells

1.1 Riserless Drilling Operations/Not Connected to the Well:

Hot work while conducting riserless drilling operations, is allowed when:

- The rig is positioned directly above the well prior to spudding; or
- The rig is positioned with rotary centre > 50m from the well center; or
- When the rig is positioned directly above the well that has been spudded, and the well is both cased and the string is out of the well; or

 The string is in the hole to cut and recover the well head from a well that is abandoned in accordance with and approved "Notifications to Abandon a Well" and will not be cutting into an open annulus.

1.2 Connected to the Well (Marine Riser and BOP Connected)

Hot work while connected to the well is allowed:

- While drilling up to 200m True Vertical Depth (TVD) before the shallowest hydrocarbon bearing zone; and
- If the gas measured in the fluid returning from the well in the gas trap is less than 10% (background gas) and no gas levels are detected in any part of the installation; or
- When operations are being conducted where hydrocarbon bearing zones are present provided the well is isolated from the formation by two verified barriers.

2.0 Exploration and Delineation Wells

2.1 Riserless Drilling Operations/Not Connected to the Well:

Hot work while conducting riserless drilling operations, is allowed when:

- The rig is positioned directly above the well prior to spudding; or
- The rig is positioned with rotary centre > 50m from the well center; or
- When the rig is positioned directly above the well that has been spudded, and the well is cased and the string is out of the well; or
- The string is in the hole to cut and recover the well head from a well that is abandoned in accordance with and approved "Notification to Abandon a Well" and will not be cutting into an open annulus

2.2 Connected to the Well (Marine Riser and BOP Connected)

Hot work while connected to the well is allowed when:

 The well is suspended to a state where immediate disconnect of the marine riser is possible with two tested barriers and the overbalanced fluid column is actively monitored as a third barrier

3.0 Interior Non Hazardous Locations

Hot work in interior non hazardous locations as outlined in the application, is permitted if work is conducted in accordance with the installations permit to work system, is not conducted in the vicinity of other sources of ignitable vapor and the following systems are fully functional:

- Ventilation system capable of being sealed at both the supply and exhaust inlets
- Sealed fire/blast protected boundaries
- Fire and gas detection system tied into ventilation shut-down
- Fire suppression systems

No other hot work activities are approved.

Chief Safety Officer