

Reactivation of Laid Up Units

2022 Rig Owners' Committee Meeting

David McKay 05 May 2022

Reactivation Survey Scope

All DUE surveys must be credited during reactivation

Surveys should include as a minimum the following:

- All safety alarms
- Engines/thrusters from engine room and bridge controls, including ESD
- Auxiliary engines with connected automation equipment
- Pumping, pneumatic and hydraulic systems
- · Remote operation of fuel oil and lube oil pumps and valves
- Cargo and ballast pumps
- Bilge pumping systems
- All communication systems
- Steering gear, including emergency operation
- · All deck machinery and equipment
- · All navigation and sounding lights and signals.
- Testing of equipment/systems based on class notations (DRILĽ; PRÓD etc.)



Reactivation Scope

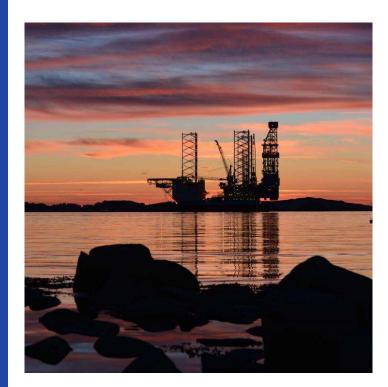
| Lay-up time | Consideration | Preservation | Class Scope |
|-------------|--|---|--|
| <12 months | To be considered as if operated continuously | Assumed as under normal operating conditions | Case-to-case. Typically only latest overdue surveys and conditions. |
| | | If vessel has been subject to no preservation | Case-to-case. Typically sighting and overdue survey. |
| >12 months | Extent of survey depending upon: - time the unit has been out of commission - maintenance and preservative measures taken during lay-up - extent of surveys carried out during commission | Not required, but will be considered for scope of recommissioning surveys | Case-to-case. Minimum: - Latest overdue surveys* - sea trial for function testing of machinery installations |

- Reactivation survey scope depends on:
- Time in lay-up
- Maintenance
- Age of vessel/unit
- Layup location
- Preservative measures taken during lay-up

- Survey status at the time of recommissioning
- The purpose of re-commissioning
- Type of vessel/unit
- Flag/Coastal State requirements
- OEM recommendations for equipment

Prolonged Survey Intervals

- Default is that 'class clock' continues to run during layup
- Possibility to prolong the time between successive surveys if sufficient preservation and maintenance is carried out to minimize deterioration
- Relevant for layup periods of more than 12 months
- Expectations to preservation of systems, equipment and structure
- Expectations to survey and recommissioning at reactivation
- Scope of survey determined for each reactivation
 - Minimum scope equivalent to Annual Survey
 - Maximum scope equivalent to Renewal Survey
 - · Adjusted dependent on
 - Condition at the time of layup and at the end of layup
 - · Class and statutory status at the time of lay-up
 - · Age of the unit
 - Length of the lay-up
 - Quality and effectiveness of the preservation measures
- Survey interval can be prolonged (up to 36 months)
- NOTE: BWM D-2 compliance date cannot be extended beyond 5 years from 2019-09-08 i.e.
 2024-09-08



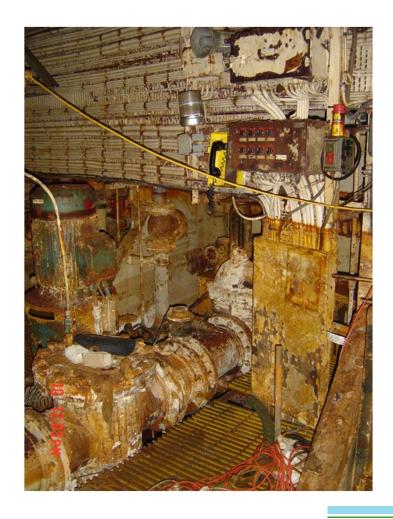
Examples

- A unit is laid up 12 months after previous renewal survey, for a period of 36 months. The next renewal survey is then due 12 months after reactivation. The owner has the choice as follows:
 - · Reactivate the unit, and perform a renewal survey 12 months after reactivation
 - Perform a full renewal survey at the time of reactivation, thus new 5 year validity certificates are issued and the clock is reset
 - Preserve the unit during lay-up according to the above guidelines, perform a reactivation survey as described above, and the next renewal survey is then due 48 months after the reactivation (survey interval is prolonged by 36 months, up to 8 years between renewal surveys)
- A unit is laid up 12 months after previous renewal survey, for a period of 60 months such that the certificates expire during the layup. The next renewal survey is then due at reactivation (but may be extended up to 24 months depending on preservation).
- A unit is laid up immediately before the renewal survey is completed/credited (the renewal survey is partially complete), for a period of 36 months. The next renewal survey is then normally due at reactivation. The owner has the choice as follows:
 - Reactivate the unit, and perform a renewal survey at reactivation thus new 5-year validity certificates are issued and the clock is reset
 - Preserve the unit during layup according to the above guidelines, perform a reactivation survey as described above, and the next renewal survey is then due 60 months after the reactivation (new 5 year validity certificates are issued, but credit is given for partial renewal survey completed immediately before layup, and for the preservation undertaken).

DNV

Preservation

- Preservation of vessel:
- Upon request, DNV may issue a Lay-up Preservation Declaration confirming that a vessel has been laid-up in accordance with DNV procedures for
 - Preserved
 - Dry preserved



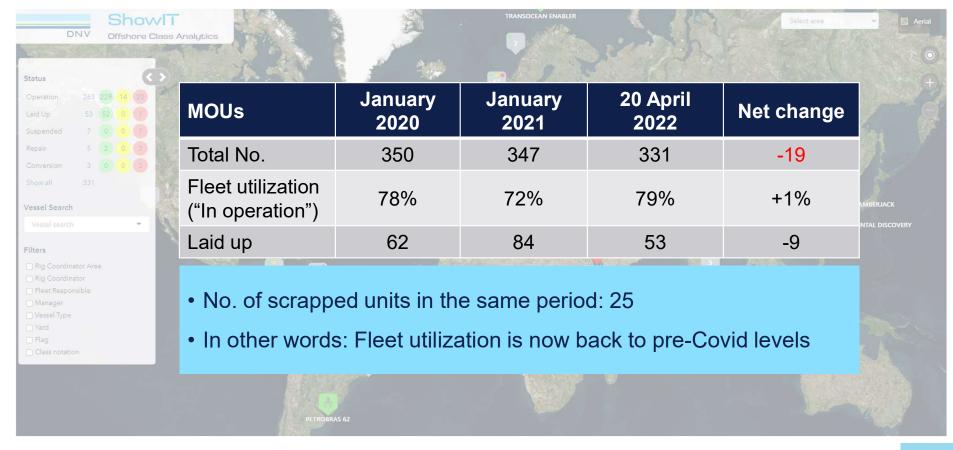
Reactivation Assessment Protocol

- DNV has developed a detailed protocol to assess a unit's readiness to return to operation within a given period (e.g. 90 days):
- Covers condition and readiness to operate of multiple systems onboard, e.g.
 - Certification And Documentation
 - Safety and Security
 - Stability, Load Line, Hull Structure And Marine Systems
 - Machinery, Electrical, Power Management System And Control System
 - Safety Systems Pollution Prevention
 - Accommodation, Navigation And Communication
- DP
- Cranes, Personnel Lifts And Other Lifting Appliances
- Drilling And Well Control System
- Helicopter Deck
- Can be performed on vessels/units classed by others, or not classed





MOU fleet – development during Covid-19



Further info

- DNV Recommended
 Practice 0290 Lay-up
 and recommissioning of
 ships and mobile offshore
 units, Oct 2021
- Memo MOI/HCA/72600000-J-2278 Rev 1 - Prolonged Survey Intervals for MOUs





RECOMMENDED PRACTICE

DNV-RP-0290 Edition October 2020 Amended October 2021

Lay-up and re-commissioning of ships and mobile offshore units

The PDF electronic version of this document available at the DNV website dnv.com is the official version. If there are any inconsistencies between the PDF version and any other available version, the PDF version shall prevail.

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