

Hazardous Offshore Work

Date: Thursday, 8 June 2023

1. Purpose

A recent fatal incident involving a person working on an offshore oil and gas facility has provided a tragic reminder of the risks of work involving the rigging, manipulation and movement of loads, including people and equipment.

A concerning trend is observed in industry where an increasing number of incidents can be linked back to insufficient assessment of risks such as stored energy, exclusion zones, line-of-fire and incorrect equipment selection or improper use. These risks significantly increase when circumstances change during the execution of the job and no, or insufficient, risk re-assessment is done.

While it will take time before the root causes of incidents are established, set out below are some general principles that should be revisited by industry, and which may improve the identification of risks and the implementation of effective controls for these kinds of activities.

This bulletin provides a reminder of the need to identify risks and apply effective controls to always protect the safety of personnel.

2. Scope

Schedule 3 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGs Act) imposes duties on operators, persons in control of particular work at a facility and employers at a facility to take all reasonably practicable steps to protect persons at the facility, the persons doing particular work at the facility and employees (as the case may be), from risks to their health and safety.

3. Hazard identification and controls

The generalised process that can lead to the safety of personnel may be described as:

- hazard Identification
- supporting safety studies
- risk assessment
- demonstration of risk as low as reasonably practicable (i.e., risk ALARP)
- control measures and performance standards

Each facility operator may have their own specific approach or tools within this generalised process to meet the types of risks of the activity. Regardless of the specific methods used, a key component of the process relates to how the workforce is exposed to the residual risks resulting from those controls.

NOPSEMA also expects that whichever method of hazard identification through to effective risk controls is chosen, the process will be overseen by executives at the top of the respective organisation, including using audits and verification to ensure the effectiveness of the process that will result in safe work in all activities.

The concept of a hierarchy of controls for management of all risks is well known across industry and NOPSEMA expects this approach or one equally as effective is applied to all activities undertaken at a facility.

A summary of the hierarchy of controls includes:

- **Elimination**

Where possible, the elimination of a hazard - or avoidance - must always be the preferred option. Key questions: Does the job need to be done at all? Can it be reasonably be deferred until a lower risk solution is found? Has the full suite of alternatives been considered?

- **Engineering controls**

An engineering control is a control measure that is physical in nature, including a mechanical device or process. Examples of engineering controls include mechanical devices such as trolleys or hoists to move heavy loads.

If it is known that an engineering control is available on the market, in the work preparation phase, consider why it is not available at your specific worksite.

Equipment manufacturers often recommend specific engineering controls for inspection, maintenance and repair tasks. These recommendations should be followed where practicable and alternative controls should not increase the risk to personnel involved in the task.

- **Administrative controls**

Administrative controls are work methods or procedures designed to minimise exposure to a hazard. In most cases, administrative controls use systems of work to control the risk. For example, this would include procedures on how to operate equipment safely or limiting exposure time to a hazardous task (e.g., line of fire).

A change in circumstances (e.g. environmental, time-of-day, equipment failure or availability) should at all times initiate a re-assessment of the risks connected to the job at hand.

- **Personal protective equipment (PPE)**

PPE refers to anything employees use or wear to minimise risks to their health and safety. Using administrative controls and PPE to reduce risks does not control the hazard at the source.

Administrative controls and PPE rely on human behaviour and supervision and, used on their own, tend to be least effective in minimising risks.

4. Legislation

Operators of a facility, persons in control of parts of a facility or particular work at a facility and employers of employees at a facility should refer to their general and specific duties as set out in Part 2, Division 1 of Schedule 3 the OPGGS Act which, in accordance with the objects of Schedule 3, are intended to:

- secure the health, safety, and welfare of persons at or near facilities; and
- protect persons at or near facilities from risks to health and safety arising out of activities being conducted at those facilities.

5. Related documents

- [N-04300-GN0106 – Guidance Note – Safety case content and level of detail](#)
- [N-04300-GN0166 – Guidance Note – Risk As Low As Reasonably Practicable](#)
- [Legislation - *Offshore Petroleum and Greenhouse Gas Storage Act 2006*](#)