

Diving – General

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Core concepts

- Diving safety is regulated under Chapter 4 of the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009 (the OPGGS(S) Regulations) and equivalent State and Territory legislation where powers have been conferred on the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).
- Before diving operations can commence the diving contractor must have a Diving Safety Management System (DSMS) that has been accepted by NOPSEMA.
- The diving contractor and diving supervisors must ensure that the diving operation/s comply with the DSMS.
- Before diving operations can commence, the operator of the diving project must have reviewed and approved the Diving Project Plan (DPP). If there is no operator, the DPP must be submitted to NOPSEMA for acceptance.
- The diving contractor or operator (as appropriate) must be able to demonstrate that in the development (or revision) of the DSMS or DPP, there has been effective involvement of members of the workforce. This demonstration must be supported by adequate documentation.
- NOPSEMA publishes a register of all DSMSs that have been received. The register is available for public access.
- The operator of the diving project must give NOPSEMA 14 days' notice prior to commencing a diving project. If there is no operator, the diving contractor must give NOPSEMA 14 days' notice prior to commencing a diving project.
- A diving contractor must take all necessary steps to provide and maintain a working environment (including equipment and systems of work) that reduces risks to the safety and health of divers and other members of the workforce to as low as reasonably practicable (ALARP). The responsibilities of the diving contractor are defined in the regulations.
- Diving supervisors are to be appointed in writing by the diving contractor. The duties of the diving supervisor are defined in the regulations.
- The requirements for a diver's medical certificate are prescribed in the regulations.
- The requirements for, and the retention of, the diving operations record, and diver's logbook are prescribed in the regulations.



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Abbreviations and acronyms

ADAS	Australian Diver Accreditation Scheme		
ALARP	As Low As Reasonably Practicable		
DPO	PO Dynamic Positioning Operator		
DPP	Diving Project Plan		
DSMS	Diving Safety Management System		
DSN	Dive Start-up Notice		
DSV	Dive Support Vessel		
HRF	Hyperbaric Reception Facility		
NOPSEMA National Offshore Petroleum Safety and Environmental Management Author			
OHS Occupational Health and Safety			
OPGGS Act	Offshore Petroleum and Greenhouse Gas Storage Act 2006		
OPGGS(S) Offshore Petroleum and Greenhouse Gas Safety (Storage) Regulations 2005 Regulations			

1. Purpose and scope

The purpose of this guideline is to assist operators and diving contractors in understanding and complying with the general requirements for diving operations under the Offshore Petroleum and Greenhouse Gas Safety (Storage) Regulations 2009 (OPGGS(S) Regulations) and provides guidance on diving operations and the related submission requirements to NOPSEMA.

The guideline reflects NOPSEMA's interpretation of the requirements of the regulations and is not a substitute for legal advice or detailed consideration of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGS Act) and relevant regulations.

This guideline should be read in conjunction with:

- Diving Submission Assessment Policy (<u>N-04500-PL0054</u>)
- Diving Safety Management Systems Content and Level of Detail (N-04500-GL1961)
- Diving Project Plan Content and Level of Detail (N-04500-GL1967)

These guidance documents are available on the NOPSEMA website, along with guidance on other legislative requirements, such as nomination of operator, Safety Case content, and notifying and reporting accidents and dangerous occurrences.

Summary tables of the legislative requirements are included as a quick reference throughout this document. **However, the reader is encouraged to work directly from the regulations themselves.** References to regulations in this guideline refer to the OPGGS(S) Regulations unless otherwise specified.



2. Background

2.1. Diving definitions

Applicable regulations

Regulation 1.5 - Definitions

Regulation 4.1 - Meaning of diving

Regulation 4.2 - When a diving operation begins and ends

Clause 5 of Schedule 3 to the *OPGGS Act* Operator of a facility

Australian Diver Accreditation Scheme

The Australian Diver Accreditation Scheme (ADAS) is Australia's national occupational diver certification scheme, administered by the ADAS Board.

Diving

Diving is undertaking any activities that are subject to Chapter 4 of the OPGGS(S) Regulations.

A person is diving if they are:

- inside a chamber where the pressure is greater than in 1 meter of seawater (whether or not the chamber is submerged in water or another liquid); or
- submerged in water (or any other liquid) where the pressure is greater than atmospheric pressure (whether or not he or she is wearing a wetsuit or other protective clothing); or
- in a manned submersible craft; or
- using a snorkel and diving without the use of any breathing apparatus.

The OPGGS(S) Regulations however do not apply to divers if they are diving using a snorkel or without breathing apparatus while conducting an environmental survey.

An environmental survey falling outside of the scope of the regulations would include surveys using a snorkel, or where no breathing apparatus is used, or where the operation takes place at a location where there is no facility present. For example, a baseline survey conducted prior to construction of a facility would fall within this meaning.

An environmental survey involving diving would likely be considered to fall under the scope of the regulations if it is conducted from a facility, including pipeline facilities. For example, environmental monitoring of scour or a marine growth survey at a facility would fall within this meaning.

Diving contractor

A diving contractor is a contractor who has access to the appropriate equipment, hardware, procedures, personnel and specialist knowledge to provide diving services on a contractual basis in support of activities for the offshore petroleum industry. The "diving contractor" is the person who enters into a contract to conduct a diving project.

When diving for the purposes of conducting an environmental survey, the operator and diving contractor will need to consider the extent to which the activity is related to exploration, recovery, processing, storage, offloading or piped conveyance of petroleum, in order to determine whether the operation falls under the scope of the regulations or not.



Diving project

A *"diving project"* is the term used for the overall diving activity regardless of its duration. It means any activity, made up of one or more diving operations, in which at least one person takes part or will take part as a diver.

A diving project can apply to both a continuous period, as in saturation diving operations, or to a series of diving operations, possibly taking place over several weeks, where the divers are not under continuous elevated pressure.

Example - Diving project:

A diving project may include diving activities related to the tie-in of a new pipeline into an existing pipeline. The project may have multiple operations such as, pigging, spool installation, PLEM and SSIV installation, cathodic protection installation and installation of erosion matts.

Diving operation

A diving operation is the portion of a diving project identified in the diving project plan which can be managed safely by one diving supervisor.

Diving operations can be either a single dive or a number of dives. It will normally be evident what this portion of work is, but factors such as the intended task, site conditions and/or the diving techniques to be employed all contribute to defining the individual diving operation/s. For example, a 28-day diving project may be made up of 40 individual diving operations.

A diving operation begins when the first diver starts to prepare to dive, for example when divers commence saturation compression or, when no compression is needed, when the first diver, who takes part in the operation starts to prepare to dive, after arriving at the diving location.

The diving operation ends when the last diver leaves the water, chamber or dive environment, and has completed any necessary decompression procedures (including any therapeutic recompression). The diving operation does not necessarily finish once the last diver has returned to atmospheric pressure. The diving operation includes the time required for therapeutic recompression if that is necessary. Good industry practice and decompression procedures require the diver to remain in the close vicinity of a recompression chamber for a specified time in case there is a need for treatment of symptoms of decompression illness.



Example - Start of a diving operation:

- When divers commence saturation compression; or
- When no compression is needed, arriving at the diving location

Example - End of a diving operation:

- When the last diver has returned to atmospheric pressure and the period typically known as 'bend watch' has finished; or
- Any therapeutic recompression (if required) is completed.

Manned submersible craft

A craft that is designed to maintain its occupant, or some or all of its occupants, at or near atmospheric pressure while submerged (whether or not it is self-propelled, and whether or not it is supplied with breathing mixture by umbilical), including a craft in the form of a suit.

Diving Project Plan (DPP)

DPP content requirements and guidance are provided in NOPSEMA document N-04500-GL1967 "Diving Project Plan Content & Level of Detail".

Diving Safety Management System (DSMS)

DSMS content requirements and guidance are provided in NOPSEMA document N-04500-GL1961 "Diving Safety Management Content & Level of Detail".

Facility

Any vessel or structure that is used or constructed for the recovery of petroleum or carries, contains or includes equipment for carrying out operations with a well from the vessel or structure.

A dive support vessel (DSV)- vessel from which diving activities are conducted.

For detailed facilities definitions and types/examples, refer to Schedule 3, Part 1, Clause 4 of the OPGGS Act.

Operator of a facility or proposed facility

The operator is the person, registered by NOPSEMA, who has day-to-day management and control of a facility or proposed facility and its activities. The operator of a facility (or proposed facility) must submit a safety case to NOPSEMA for acceptance that describes the intended activities, the hazards associated with those activities (including diving activities) and the controls necessary to manage the risk for all activities to a level that is ALARP.



2.2. Health and Safety Legislation

In Australia, the OPGGS Act provides that NOPSEMA is the regulator for occupational health and safety (OHS), structural (well) integrity and environmental management of petroleum exploration and development activities in offshore areas beyond the first three nautical miles of the territorial sea.

NOPSEMA also regulates all offshore areas in coastal waters where a state or the Northern Territory has conferred regulatory powers and functions. In jurisdictions where powers to regulate are not conferred, regulatory responsibilities remain with the relevant state or territory.

At the time of publication of this guidance, Victoria was the only Australian State or Territory to have conferred powers to NOPSEMA for OHS functions in designated coastal waters. While other jurisdictions may consider the future conferral of these functions, it remains the obligation of the duty holder to comply with other relevant state and territory legislation, where applicable.

Diving activities are covered under Chapter 4 (Diving) of the OPGGS(S) Regulations.



2.2.1. Diving Regulations Flowchart

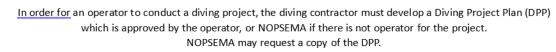
Any diving activities must follow the regulations according to the Commonwealth *Offshore Petroleum and* Greenhouse Gas Storage Act 2006 and Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations (OPGG(S) Regulations).

Refer to Chapter 4, Part 1 of the OPGGS(S) Regulations for more information on what constitutes a diving activity.



To conduct diving operations, a diving contractor must develop a Diving Safety Management System (DSMS) which is accepted and registered by NOPSEMA.

A DSMS must comply with the requirements set out in Chapter 4, Part 2 and Part 4 of the OPGGS(S) Regulations.



A DPP must comply with the requirements set out in Chapter 4, Part 3 and Part 4 of the OPGGS(S) Regulations.



Prior to beginning the diving project and following the creation of a DPP, a start-up notice (DSN) must be provided to NOPSEMA by the operator for a diving project. If there is no operator for a diving project, the diving contractor must provide a DSN to NOPSEMA.

A DSN must comply with the requirements set out in Chapter 4, part 7 of the OPGGS(S) Regulations. Refer to flowchart in section 4.1 for more information.



A diving contractor must appoint, in writing, one or more diving supervisor to ensure that there is a diving supervisor to supervise all diving that is carried out as part of the operation.

A contractor and diving supervisor must comply with the requirements set out in Chapter 4, Part 6 of the OPGGS(S) Regulations. Diving Supervisors must also comply with the requirements set out in Part 8 and 9. Refer to flowchart in section 5.1 for more information.



A diver in a diving operation must comply with a range of requirements including appropriate qualifications and the ability to provide a medical certificate.

A diver must comply with the requirements set out in Chapter 4, part 8 of the OPGGS(S) Regulations. Refer to flowchart in section 6.1 for more information.



3. General Requirements

3.1. Involvement of Members of the Workforce

Applicable regulations

Regulation 4.18 - Involvement of divers and members of the workforce in DSMS and diving project plan

Diving contractors must consult with divers and other members of the workforce during the development and revision of a DSMS and/or a DPP. Engagement ensures the workforce are informed and consulted about the risks they may be exposed to during a diving project and the control measures and safety management systems to be applied in the management of those risks.

In relation to diving projects, this workforce involvement should typically include some of the diving contractor's more regular supervisory and diving personnel, who would provide input and review the relevant documents, providing feedback as necessary.

It is understood and accepted that the diving workforce is often transient in nature and diving contractors often employ part-time diving personnel, therefore making it a challenge to involve members of the workforce in the consultation process. However, as a minimum requirement there should be consultation with, and participation of, the diving supervisor(s) and ideally the divers who will or may be involved in the diving project. The level of employee involvement, however, should be proportionate with the project duration and complexity. The larger and/or more complicated the project, the greater the range of operational personnel that should be involved. Diving contractors should develop a process to ensure the workforce involvement is genuine and effective.

When submitting a DSMS to NOPSEMA for acceptance, the diving contractor must set out in writing, details of the consultation that has taken place, including submissions or comments made during the consultation and any changes that have been made to the DSMS as a result of the consultation.

3.2. Safety Responsibilities

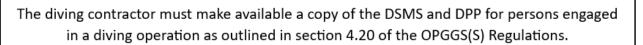
Applicable regulations

Regulation 4.19 - Safety responsibilities of diving contractors Regulation 4.20 - Safety in the diving area



3.2.1. Responsibilities flowchart

A diving contractor must ensure the working environment is safe and the diving operation complies with the DSMS as outlined in section 4.19 of the OPGGS(S) Regulations.





An operator and diving contractor must apply depth limits for surface supplied diving as outlined in section 4.21 of the OPGGS(S) Regulations.



The diving contractor must appoint diving supervisors as outlined in section 4.22 of the OPGGS(S) Regulations.



A diving supervisor must ensure the diving operation is carried out in accordance with the law, DSMS and DPP as outlined in section 4.23 of the OPGGS(S) Regulations.



A diving supervisor must ensure the diving operation is recorded as outlined in section 4.27 of the OPGGS(S) Regulations.



Divers must have a log book to record each time they dive as outlined in section 4.28 of the OPGGS(S) Regulations.



3.2.2. Diving Contractor

The diving contractor's general responsibilities are to ensure,

- The diving project is properly and safely managed to reduce risks to the safety and health of divers and other members of the workforce to ALARP.
- Suitable and sufficient risk assessments have been carried out and the risk reduction controls have been identified and applied.
- The place from which the diving is to be carried out is suitable and safe, including the selection and suitability of the diving vessel and its support services and systems (i.e. vessel assurance).
- The diving operation is conducted in accordance with and complies with the NOPSEMA accepted DSMS.
- A suitable DPP is prepared, in consultation with the workforce and the operator, which includes emergency and contingency plans. The DPP must be dated and authorised by a responsible person acting on behalf of the diving contractor and approved by the operator for the project (or accepted by NOPSEMA if there is no operator).
- The supervisor and dive team are fully briefed on the project and aware of the contents of the DPP.
- There are sufficient personnel in the dive team to enable the diving project to be carried out safely.
- The dive personnel are qualified and competent.
- The dive supervisors are appointed in writing and the extent of their control fully documented.
- A suitable mobilisation and familiarisation program is completed by all the members of the dive team. Other personnel involved in the diving project, for example ship's crew, may also need to complete the program.
- Adequate arrangements exist for first aid and medical treatment.
- Suitable and sufficient plant is provided and that it is correctly certified and maintained.
- Divers are medically fit to dive.
- Diving project records are retained for at least 7 years.
- There is a clear reporting and responsibility structure laid down in writing.
- All other relevant regulations are complied with.

3.2.3. Safety in the Diving Area

Copies of the following documents must be available at the dive site:

- Letter of appointment for each diving supervisor;
- The DSMS accepted by NOPSEMA; and
- The DPP specific to the diving project approved by the operator or accepted by NOPSEMA.

The dive supervisor has the authority to give reasonable instructions in relation to health and safety to any person taking part in the diving operation. These orders take precedence over any operational hierarchy. These orders may include instructing vessel and crane movements, unnecessary personnel to leave a control areas, and instructing personnel (nominated in the plan) to operate plant, equipment and hardware.



The dive supervisor retains overall control of the chamber operations when a diver inside a deck chamber requires medical treatment, whether medical personnel are present locally or are communicating by long distance.

There will be times (for example during diving operations from a vessel) that the supervisor must liaise closely with other personnel, such as the vessel master, the officer of the watch, or bridge control. In such circumstances, the dive supervisor should recognise that the vessel master has responsibility for the overall safety of the vessel and its occupants.

Subregulation 4.23 (3) refers to the dive supervisor giving reasonable direction to "any person taking part in the diving operation". It is NOPSEMA's view that this is taken to include, all members of the dive team, contractors, clients (or their representatives), operators (or their representatives), crane drivers, dynamic positioning operators (DPOs) and anyone else involved in the diving operation who the diving supervisor feels may impact (positively or negatively) on the safety of the diving operation.

3.3. Diving Operations

Applicable regulations

Regulation 4.21 - Diving depths Regulation 4.25 - Divers in diving operations Regulation 4.26 - Medical Certificates

3.3.1. Diver competence

When considering a diver's competence, the diving contractor and diving supervisor must consider whether the person has the appropriate training, qualifications and experience to safely carry out the task. In doing so, the diving contractor and diving supervisor must consider the diver's knowledge, skills and experience with,:

- all activities the diver may reasonably expect to carry out while taking part in the diving project;
- dealing with all reasonably foreseeable emergencies;
- the objectives of the diving project;
- the required diving technique (for example, surface, saturation or manned submersible craft/hard suit diving);
- the level of competence required to undertake the assigned duty; and
- any restriction and/or limitation stated on a particular diving qualification certificate, which must be strictly complied with such as diving technique, type of equipment and hardware, breathing gases, and maximum depth.

The diving contractor and diving supervisor for a diving operation must not allow a person to dive if:

- the diver does not have a current ADAS diving qualification that is appropriate for the scope of the diving operation; or
- the diver does not have a valid medical certificate.

Personnel undertaking underwater operations inside a manned submersible craft or providing emergency medical care within a chamber do not require an ADAS qualification or a diving medical certificate.



3.3.2. Diving Depths

The operator and diving contractor must not approve a DPP or allow surface supplied diving operations to a depth deeper than 50 metres.

The operator and diving contractor must ensure that operational dives beyond a depth of 50 metres involve the use of a closed diving bell supplied with a suitable breathing gas mixture (for bell atmosphere and divers gas supply), or alternatively that a manned submersible craft is used. The breathing gas must contain an appropriate inert gas that mitigates the risk of narcosis, and the oxygen concentration is sufficient to prevent hypoxia but limited to prevent oxygen toxicity.

3.3.3. Dive Medical Certificates

A diver's medical examination must be conducted in accordance with AS/NZS 2299.1 Occupational Diving Operations Appendix M - Guidance for Medical Practitioners. The issued Occupational Diver Medical Certificate should include the elements described within the AS/NZS 2299.1 Occupational Diving Operations Appendix L - Diving Medical Examination forms.

Alternatively, a diver's medical examination may be based on any law of the United Kingdom relating to the medical fitness of persons employed as divers.

The medical practitioner who conducts the medical examination and completes the certificate must meet the requirements outlined under subregulation 4.26(2)(c).

The doctor, on completing the examination, must enter the details of the examination into the appropriate section of the diver's logbook.

3.3.4. Fitness for Work

Minor illness, such as the common cold or a dental problem, can have serious effects on a diver under pressure. Personnel who dive in a diving project and who consider themselves unfit for any reason, for example when fatigued, injured, or have recently received medical treatment should inform their dive supervisor. Where necessary, dive supervisors should seek guidance from the diving contractor's medical adviser if there is doubt about that person's fitness to dive.

3.4. Diving Supervisors

Applicable regulations

Regulation 4.22 - Appointment of diving supervisors Regulation 4.23 - Duties of diving supervisors

3.4.1. Appointment

The diving contractor must appoint, in writing, at least one supervisor for each diving operation.

It is also noted that subregulation 4.16 (3) provides that the DPP must not specify as a diving operation a task that is too complex, or too big, to be supervised safely by one supervisor. Therefore, for each diving project, the diving contractor must evaluate how much of the project can be supervised safely by one person. Sufficient numbers of diving supervisors must be appointed to cover the overall diving project.

Where a diving project incorporates continuous around the clock diving, a supervisor must be appointed for each shift.



During a continuous saturation diving project, it is good industry practice to ensure adequate dive supervisor on shift at any one time to provide for appropriate shift and mid bell run handovers and to act as relief for one another. The name of the diver supervisor in actual control should be recorded in the diving operation record, with handovers for comfort breaks or other purposes also recorded.

In particular, each supervisor must have immediate overriding control of all safety aspects for the diving operation for which they are appointed.

Relevant good industry practice

Other typical diving positions with safety responsibilities:

- Diving superintendent
- Life support technician
- Divers Attendant
- Hyperbaric Reception Facility (HRF) Supervisor

The regulations require that diving supervisors and divers must be accredited under the ADAS scheme in order to undertake offshore petroleum and greenhouse gas storage related diving operations.

Under the ADAS scheme, there are a number of qualifications that cater for the variety of disciplines within a diving team, (for example, air supervisor, air diver and saturation supervisor). These qualifications are valid for a prescribed period, following which renewal must be applied for. Diving contractors must ensure the ADAS qualifications held by diving supervisors and divers are appropriate for the intended activity and are valid.

Diving supervisors must be suitably qualified for the diving techniques to be used during diving operations on which they will be employed. For example, a supervisor qualified to supervise an air diving operation only, is not qualified to supervise a bell operation whereas a bell diving supervisor is qualified to take charge of both types of operation. Any person appointed as a dive supervisor must therefore possess the correct qualification applicable to the planned diving operation.

ADAS has in place arrangements to recognise divers and dive supervisors who can demonstrate that they possess the requisite competencies to meet the agreed ADAS standards.

3.4.2. Duties

The dive supervisor has a duty to ensure the diving operations are conducted safely.

The diving supervisor should ensure that the controls to reduce risk to a ALARP that have been identified in the DPP are implemented.

If a supervisor considers that the controls identified in the DPP for a specific dive operation are inadequate or the task is too difficult then the supervisor must not execute the operation.



If a dive supervisor does not agree with any aspect of the diving project allocated as his or her operation to supervise, the supervisor should raise the matter with the diving contractor. A dive supervisor should not participate in a diving operation that he or she considers to be unsafe.

The DSMS should also describe the duties, roles and responsibilities of all supervisors in a diving project such as diving superintendent, life support supervisor, divers' attendant and HRF supervisor.

The duties of the diving supervisor are described in the regulations. This guidance provides information on intent and application of those regulations. The diving contractor should ensure the diving supervisor knows and understands their duties under the regulations and these guidance notes.

Supervisors must ensure that diving operations are carried out safely and in line with the diving contractor's DSMS (policies, standards, practices and procedures), and the DPP.

The diving supervisor must check that the entries recorded in the diver's log are an accurate record of the dive and then countersign the page to certify to that effect.

The operator has the primary responsibility to notify and report accidents and dangerous occurrences that occur at or near the facility to NOPSEMA. If there is no operator, the diving supervisor has a duty to report details of accidents and dangerous occurrences to NOPSEMA.

It is important to note that the diving supervisor also has a duty to report to the operator and diving contractor details of any accidents and incidents as soon as practicable.

The diving supervisor is authorised to give reasonable orders in relation to health and safety to any person taking part in the diving operation. In addition to all members of the diving team, "any person" may include all members of the dive team, contractors, clients, operators, crane drivers, Dynamic Positioning Operators (DPO) and anyone else involved in the diving operation who the diving supervisor feels may impact on the safety of the diving operation. While these personnel may be under the control of someone other than the diving supervisor, i.e. a vessel master, in the first instance they must act on the reasonable directions of the diving supervisor.

The regulation requires the dive supervisor, while on duty as the supervisor of a diving operation, not to dive. This does not prevent the supervisor from diving if he or she has been relieved from the duty as the dive supervisor and replaced by another appropriately appointed and qualified dive supervisor.

A diving supervisor may conduct a dive operation that is not consistent with the regulations in response to an extraordinary emergency.

The diving supervisor must ensure that all persons involved in the diving operation are thoroughly and adequately briefed and provided with all relevant information that is necessary to enable those persons to safely carry out their part in the diving operation.

3.5. Records

Applicable regulations

Regulation 4.27 - Diving operations record Regulation 4.28 - Divers logbook

3.5.1. Diving Operations Records

The content and form of the diving operations logbook is defined in the regulations.



The diving supervisor must ensure that a record of every diving operation, supervised by that person is recorded in the diving operations logbook. The diving supervisor must ensure that the record is a true and comprehensive account of the operation and contains all the details required by the regulations.

The diving supervisor must sign each page of the diving operation record to verify the information entered into the record.

Every record of a diving operation conducted by a diving contractor must be kept in safe conditions for a period of at least seven years after the last date in the record.

For saturation diving projects, a diving operations record must include the records maintained by the Life Support Supervisor.

3.5.2. Diver's Logbook

The content and form of the divers' logbook is defined in the regulations.

Every diver must possess a diver's logbook. It must clearly identify the person to whom the diving details in the record relate and must have a clear photograph showing a good likeness of the diver whose name is printed in the book and whose signature is displayed in the personal information.

Every diver has a legal obligation to ensure that a detailed permanent record of every diving operation undertaken by the diver is kept in the form detailed in the regulations.

Diving supervisors must ensure that the divers' record is a true and correct account of the operation and then countersign to that effect.

Each logbook must be kept by the diver for at least seven years after the last entry.

The diver must have his/her logbook available at all times during a diving operation for production to an inspector under appointed under the OPGGS Act whenever required. The inspector must be able to ascertain from the details in the record that the diver is the person to whom the details in the logbook refer.



4. Diving Safety Management Systems

4.1. **DSMS Flowchart**

A person will be considered diving if they meet any of the criteria outlined in regulation 4.1 of the OPGGS(S) Regulations.



No diving may commence without a DSMS as outlined in regulations 4.3.



DSMS must be developed in accordance with regulation 4.4. The DSMS must also be developed in consultation with the workforce as required by regulation 4.18.



Once DSMS has been developed or revised it must be accepted by NOPSEMA, as outlined in regulations 4.5 and 4.6.

NOPSEMA may reject a DSMS if the DSMS fails to comply with the requirements of regulation 4.4, as set out in regulations 4.7 and 4.8.

Once the DSMS has been accepted, NOPSEMA will register the DSMS as outlined in regulation 4.9.

Throughout the life of the DSMS, the diving contractor must revise the DSMS as outlined in regulation 4.10.

NOPSEMA may also give notice to revise a DSMS as outlined in regulation 4.11.



4.2. Assessment process

Ann	licable	regu	lations
Appi	licaple	regu	lations

- Regulation 4.3 No diving without DSMS
- Regulation 4.5 Acceptance of a new DSMS
- Regulation 4.6 Acceptance of a revised DSMS
- Regulation 4.7 Grounds for rejecting DSMS
- Regulation 4.8 Notice of reasons
- Regulation 4.9 Register of DSMSs
- Regulation 4.10 Revision of DSMS
- Regulation 4.11 Notice to revise DSMS

Regulation 4.18 - Involvement of divers and members of the workforce in DSMS and diving project plan



Further guidance is available in the NOPSEMA guideline: N-04500-GL1961 *"Diving Safety Management System Content and Level of Detail"*



Further guidance is available in the NOPSEMA guideline: N-04000-GL0225 *"Making submissions to NOPSEMA"*



Further guidance is available in the NOPSEMA Policy: N-04500-PL054 *"Diving Submission Assessment"*

4.2.1. Assessment

Figure 1 below provides a broad overview of the DSMS assessment process.

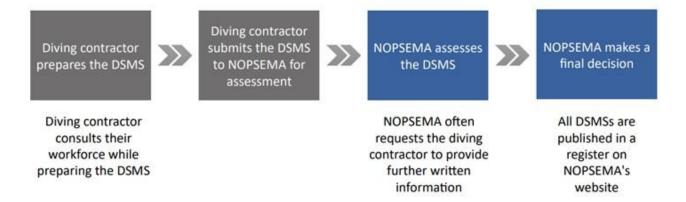


Figure 1: DSMS Assessment Process

New DSMS

Diving contractors are required to have a NOPSEMA accepted DSMS prior to conducting petroleum related diving operations.

Within 60 days of receiving a new DSMS, NOPSEMA must either accept the DSMS or reject the DSMS as being not acceptable.



New diving contractors who are planning to prepare an initial DSMS are encouraged to contact NOPSEMA at the earliest opportunity to seek any clarifications and additional advice regarding the regulatory requirements.

Revised DSMS

If the DSMS is revised for any of the reasons listed below (and as identified in regulation 4.10), it must be submitted to NOPSEMA for re-assessment. Minor revisions which do not correspond to the reasons mentioned need not be submitted to NOPSEMA.

Within 28 days after receiving a revised DSMS, NOPSEMA must either accept the revised DSMS or reject the revised DSMS for failing to comply with a particular aspect of the regulations or by not meeting the minimum standards set out in the DSMS guidelines.

The diving contractor and NOPSEMA may agree a period other than 28 days, if for example the revision is complex and extensive in nature and therefore cannot be adequately assessed within the 28-day timescale.

A diving contractor must revise a DSMS:

- *if there is a change in scientific or technical knowledge,*
- *if the diving contractor proposes to make a significant change to the method of operation or to procedures or equipment*
- *if NOPSEMA gives notice in accordance with regulation 4.11*
- *if a number of minor changes result in the DSMS being significantly different from the latest version of the DSMS accepted by NOPSEMA*
- at the end of each period of 5 years.

Request for Further Written Information

NOPSEMA will assess the adequacy of the DSMS, based on the content of the DSMS submission. If NOPSEMA is of the view that further information or clarification is necessary in order that an assessment decision can be made, it will write to the diving contractor and set out the elements for which further written information is requested.

It is noted that the regulations do not provide an explicit obligation on the diving contractor to respond to requests for further written information and therefore responding to such a request is voluntary on the part of the diving contractor.

4.2.2. Decision

Acceptance

If NOPSEMA is satisfied that the DSMS meets the requirements of the regulations, it will write to the diving contractor advising of the assessment decision as soon as practicable.



Rejection

If NOPSEMA has determined that the DSMS does not meet the requirements of the regulations, it will write to the diving contractor formally advising of the assessment decision as soon as practicable. The letter will set out the reason(s) for rejection.

The diving contractor may meet with NOPSEMA to discuss the reasons for rejection.

The diving contractor can submit a new DSMS any time after being advised of the rejection.

4.2.3. Revision Triggers / Notice to Revise

Revision Triggers

If as a result of developments in scientific or technical knowledge that are relevant to diving operations or in the assessment of hazards of diving projects make it appropriate, the DSMS must be revised incorporating such changes. Following such a revision, the diving contractor must submit the revised DSMS to NOPSEMA for assessment.

Example – Significant change:

A diving contractor becomes aware of developments in the scientific and/or technical knowledge associated with therapeutic treatment tables.

The contractor revises the DSMS with the changed therapeutic treatment tables and submits the DSMS to NOPSEMA as a revision under regulation 4.10 (a).

Example – Significant change:

A diving contractor changes the structure of their organisation. The changes directly affect the roles, responsibilities and competencies of key personal. This would be considered a significant change to the method of operation under regulation 4.10 (b).

A diving contractor changes the DSMS to include saturation diving in addition to Air and Nitrox. This would be considered a significant change to dive procedures under regulation 4.10 (b).

A diving contractor changes the DSMS to include Nitrox generating equipment. This would be considered a significant change to diving equipment and operational method under regulation 4.10 (b).

It is likely that the diving contractor may make small minor changes to policies, items of equipment and hardware, procedures and practices. These changes, individually, may not require a formal revision of the DSMS. However, if an accumulation of several minor changes means that the DSMS ceases to be an accurate representation of the DSMS as accepted by NOPSEMA, it must be revised and submitted to NOPSEMA.



The diving contractor should maintain a register of minor changes to be reviewed each time a minor change is made, to consider whether the cumulative effect warrants a formal revision of the DSMS.

The five-year revision period is to be calculated from the most recent date that DSMS, new or revision has been accepted by NOPSEMA.

Example – Small number of minor changes:

A diving contractor makes a number of minor changes to the Health and Safety policy that make the policy significantly different from DSMS accepted policy. This would require a revision of the DSMS

A diving contractor makes a number of minor administrative changes to the document as part of annual review. This would be considered normal changes in the continual review of the DSMS. A revision would not be required.

A diving contractor makes a number of minor changes to safe operating procedures due to safety alerts. This would be considered normal changes in the continual review and of the DSMS.

4.2.4. Notice to revise

NOPSEMA may require the diving contractor to revise its DSMS.

When requiring a DSMS revision, NOPSEMA must issue a notice in writing to the diving contractor. The notice must set out the details regarding the required revision; including what has to be revised, the reason for the revision, and the date by which the revised DSMS must be submitted to NOPSEMA.

On receiving a revision notice the diving contractor may write to NOPSEMA requesting a variation to the revision notice or request a withdrawal of the revision notice. The diving contractor must set out its reasons why the NOPSEMA revision notice should be varied or withdrawn within 21 days (or longer if agreed by NOPSEMA) of receiving the initial revision notice.

NOPSEMA will make a decision regarding the diving contractor's variation/withdrawal request and notify the diving contractor of its decision within 28 days of receiving the submission. If NOPSEMA decides not to accept the reasons in the submission, it must provide written notice to the diving contractor, setting out the reason(s) for this decision.

If the diving contractor does not undertake the revision in the manner requested, NOPSEMA may withdraw its acceptance of the DSMS.

If NOPSEMA withdraws acceptance of the DSMS, the diving contractor (and the operator, if appropriate) is required to ensure that diving is not undertaken or if diving is being undertaken, it ceases immediately.

4.3. DSMS Register

NOPSEMA publishes a register of the details of all DSMSs (new and revised) that have been received.

The purpose of the regulation is to ensure that operators can readily satisfy themselves of the obligation under subregulation 4.3(2) that the diving contractors provided DSMS has been accepted by NOPSEMA and is current, before allowing diving work to begin.



The register is located on the <u>NOPSEMA website</u> and is updated after the completion of each DSMS assessment. It contains the details required under subregulation 4.9(2), including details of DSMSs that have been rejected and accepted including particulars of any conditions that may have been imposed on the acceptance.

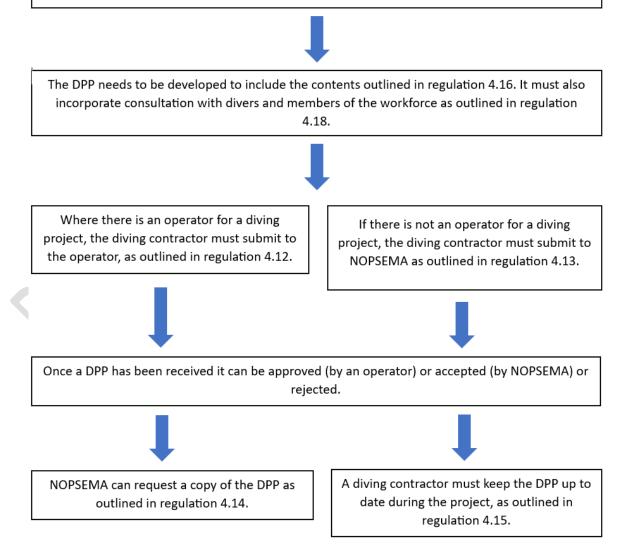
5. Diving Project Plans

Applicable regulations

Regulation 4.12 - Diving project plan to be approved Regulation 4.13 - Diving project plan to NOPSEMA if there is no operator Regulation 4.14 - Diving project plan to NOPSEMA if requested Regulation 4.15 - Updating diving project plan Regulation 4.17 - No diving without an approved diving project plan Regulation 4.18 - Involvement of divers and members of the workforce in DSMS and diving project plan

5.1. DPP Flowchart

A diving contractor may not allow a person to dive if they do not have a Diving Project Plan (DPP) as outlined in regulation 4.17 of the OPGGS(S) Regulations.





5.2. Assessment

Figure 2 below provides a broad overview of the DPP assessment process.



Figure 2: DPP Assessment Process

All diving projects must have a DPP prepared by the diving contractor in conjunction with the workforce and operator (where there is one) and any other relevant parties; for example, any duty holders affected by the diving project.

If the diving project is conducted for an operator, the DPP must be developed in conjunction with that operator and the operator must approve the plan. If there is no operator, the DPP must be submitted to NOPSEMA for assessment. If the DPP meets the requirements of the regulations, NOPSEMA will accept the plan.

Diving may not commence unless the DPP is approved by the operator or accepted by NOPSEMA.

A diving contractor for a project must not allow a person to dive is there is no DPP for the project or if the DPP has not been approved by the operator or accepted by NOPSEMA, as appropriate.



Further guidance on DPP content is available in the NOPSEMA Guideline: N-04500-GL1967 *"Diving Project Plan Content and Level of Detail"*



Further guidance is available in the NOPSEMA Guideline: N-04000-GL0225 *"Making submissions to NOPSEMA"*



Further guidance is available in the NOPSEMA Policy: N-04500-PL054 *"Diving Submission Assessment"*

5.2.1. **DPP Approval**

Applicable regulations

Regulation 4.12 - Diving project plan to be approved Regulation 4.13 - Diving project plan to NOPSEMA if there is no operator Regulation 4.16 - Contents of a diving project plan



The Operator

The DPP must be approved by the operator before starting the diving project. In approving the DPP, the operator must be satisfied that the DPP complies with the content requirements set out in the regulations and that there has been effective consultation with members of the workforce.

If There is No Operator – NOPSEMA

There may be a small number of instances where a diving contractor undertakes an offshore diving contract subject to the Regulations that does not involve an operator or a facility as defined by Clause 3 of Schedule 3 to the OPGGS Act, such as:

- a diving operation to retrieve debris on a well that is in a non-producing state; or
- diving support provided for seismic survey operations conducted on an exploration licence.

In these instances, the completed DPP (or revised DPP) is to be submitted to NOPSEMA for acceptance. NOPSEMA will assess the DPP and notify the operator of its decision within 14 days. NOPSEMA will accept the DPP if the DPP meets the requirements of the regulations, i.e. the content requirements including demonstrating that there was effective consultation with the divers and members of the workforce and the operations are appropriate for the single plan.

5.2.2. **Revision**

Applicable regulations

Regulation 4.15 - Updating diving project plan

A DPP must be revised if there is a significant change in the level of risk for any reason, or the contributing factors and any additional controls necessary to mitigate the risk must be incorporated into a revised DPP.

Example - Change Requiring a Revised DPP:

A diving contractor may need to change an installation procedure and lift plan for a spool instillation due to a change in spool configuration resulting in an increase of weight to be lifted.

Changes to the DPP must be incorporated into the latest revision of the plan under management of change procedures, defined in the diving contractor's DSMS, to ensure that hazards are assessed, and controls implemented so that risks remain ALARP.

Any revision must be conducted in consultation with the operator who has the ultimate responsibility for approving the revised DPP, as well as consultation with divers and other members of the workforce.

If the DPP is to be revised, the operator must approve (or NOPSEMA must accept) any proposed revision of the DPP.



5.3. DPP to NOPSEMA

Applicable regulations

Regulation 4.14 - Diving project plan to NOPSEMA if requested

The operator for a diving project must provide a copy of the DPP to NOPSEMA if requested to do so. NOPSEMA will make the request in writing. The DPP can be requested for a number of reasons, but typically this provision is used when NOPSEMA is considering undertaking an inspection of the diving project. NOPSEMA will use the DPP to assist in the planning and the conduct of the inspection.

5.4. DPP Register

NOPSEMA maintains a register of NOPSEMA accepted diving project plans on the NOPSEMA website. \

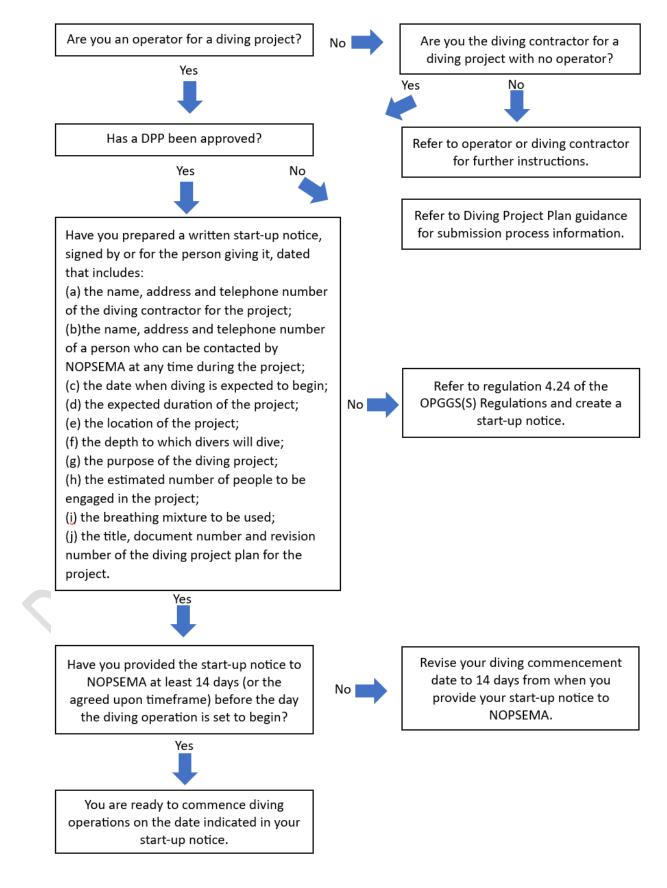
6. Dive Start-up Notice

Applicable regulations

Regulation 4.24 - Start-up notice



6.1. Diving Start-up Notice Flowchart





6.2. Diving Projects with an Operator

The operator of the diving project must not allow diving operations to commence unless the operator has submitted a DSN to NOPSEMA at least 14 days in prior to the start of diving operations.

The DSN is intended to ensure that NOPSEMA is informed of every diving project that is being undertaken within NOPSEMA's jurisdiction. The minimum 14 days' notice is required to enable NOPSEMA to prepare for an inspection of the operations, should NOPSEMA consider an inspection of the upcoming project is appropriate.

For complex diving projects, the operator should consider liaising with NOPSEMA well in advance of the project to facilitate consultation regarding specific aspects of the project.

When diving projects are required as an urgent response to an unplanned event and where the need is considered immediate or as soon as possible, it may not be possible to provide NOPSEMA the 14 days advance notice. In these circumstances, NOPSEMA must be contacted as soon as possible after the need arises, so that an alternative start date can be agreed. When this occurs, the operator will be asked to provide details to justify agreement to a period of less than 14 days. NOPSEMA will also need to be satisfied that the urgency and associated short lead time does not compromise the safety of all those involved in the project. This would include advice whether the DPP for the diving project has been developed and approved.

6.3. Diving Projects with No Operator

There are a small number of occasions envisaged where a diving project will be carried out without the involvement of an operator. In these circumstances, the diving contractor has the responsibility to submit a DSN directly to NOPSEMA.

If there is no operator, for example seismic diving for a titleholder, the diving contractor must not allow diving operations to commence unless the diving contractor has submitted a DSN to NOPSEMA at least 14 days in prior to the start of diving operations.

For complex projects, the diving contractor should consider liaising with NOPSEMA well in advance of the project to facilitate consultation regarding specific aspects of the project.

Where diving projects are required in urgent response to an unplanned event and need to be undertaken immediately or as soon as possible, it may not be possible to provide NOPSEMA with 14 days advance notice. In these circumstances, NOPSEMA must be contacted as soon as possible after the need to conduct diving operations arises, so that an alternative start date can be agreed and justification for the short notice. NOPSEMA will also need to be satisfied that the urgency and associated short lead time does not compromise the safety of all those involved in the project.

7. Related Documents

7.1. Legislation

Offshore Petroleum and Greenhouse Gas Storage Act 2006

Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009

Note: All regulatory references contained within this Guidance Note are from the Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006 and the associated Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009. <u>https://www.legislation.gov.au/</u>



7.2. Codes and Standards

AS/NZS 2299.1 :2015 - Occupational diving operations

7.3. NOPSEMA Documents

N-04000-PL0050 - Assessment policy

N-04000-GL0225 - Making submissions to NOPSEMA guideline

N-04300-GL1273 – Safety Case Content Required Specific to Diving Activities

N-04300-GN0107 - Hazard identification guidance note

N-04300-GN0165 - Risk assessment guidance note

N-04300-GN0166 - ALARP guidance note

N-04300-GN0271 - Control measures and performance standards guidance note

N-04300-GN1054 - Involving the workforce guidance note

N-04300-GN1053 - Emergency planning guidance note

N-04500-PL0054 - Diving submission assessment policy

N-04500-FM1453 - Diving Project Plan concordance table

N-04500-FM0711 - Diving Safety Management System concordance table

N-04500-FM1000 - Diving Safety Management System submission cover sheet

N-04500-GL1961 - Diving Safety Management System content and level of detail guideline

N-04500-GL1967 - Diving Project Plan content and level of detail guideline

Register of DSMSs and DPPs

Documents published by NOPSEMA that are relevant to diving operations are available on NOPSEMA's website at https://www.nopsema.gov.au/offshore-industry/safety/diving-operations/

Other documents published by NOPSEMA that diving contractors and operators should consider when preparing and implementing a DSMS and/or DPP are available on NOPSEMA's website at https://www.nopsema.gov.au/document-hub