



Australian Government
Australian Maritime Safety Authority

Marine Order 60 (Floating offshore facilities) 2001

in effect under the *Navigation Act 2012*

This is a compilation of *Marine Order 60 (Floating offshore facilities) 2001*, prepared on 12 June 2013, taking into account modifications made by *Marine Order 4 (Transitional modifications) 2013*.

Subsection 343(2) of the *Navigation Act 2012* provides that the Marine Orders may provide for specified orders that were in force under the *Navigation Act 1912* immediately before its repeal to have effect, for the *Navigation Act 2012*, with the modifications made for it in the Marine Orders.

Marine Order 4 (Transitional modifications) 2013 provides for this Order to have effect and makes modifications for it.

This compilation is not a compilation for the *Legislative Instruments Act 2003*, and so is not registered on the Federal Register of Legislative Instruments.

Prepared by the Office of Legislative Drafting, Australian Maritime Safety Authority

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1 Name of Order

This Order is *Marine Order 60 (Floating offshore facilities) 2001*.

1A Purpose

This Order provides for the safe operation and navigation of Floating Production, Storage and Offtake Facilities (FPSOs) and Floating Storage Units (FSUs) by setting out requirements, in addition to those set out in other Orders, with which FPSOs and FSUs must comply.

1B Power

1B.1 Subsection 98(1) of the Navigation Act provides for regulations to be made for safety certificates for a regulated Australian vessel.

1B.2 Subsection 339(1) of the Navigation Act provides for regulations to be made prescribing matters required or permitted to be prescribed or that are necessary or convenient to be prescribed for carrying out or giving effect to that Act.

1B.3 Subsection 339(2) of the Navigation Act provides that, without limiting subsection (1), these regulations may be about, among other matters:

- (a) the design and construction of vessels; and
- (b) the machinery and equipment to be carried on board vessels; and
- (c) the operating, maintaining, checking and testing of that machinery and equipment; and
- (d) saving life at sea; and
- (e) the maintenance, testing, survey and certification of vessels.

Note FPSOs and FSUs are vessels — see definition of *vessel* in subsection 14(1) of the Navigation Act.

1B.4 Subsection 342(1) of the Navigation Act provides that AMSA may make orders for any matter for which provision must or may be made by the regulations.

2 Definitions

In this Order:

cargo ship safety construction certificate — see *Marine Order 31 (Ship surveys and certification) 2006*.

FPSO means a vessel that is:

- constructed or modified to accept petroleum, directly or indirectly, from a sub-sea well or pipeline;
- capable of storing the petroleum and delivering it to another vessel or pipeline;
- capable of modifying the petroleum while in storage on the vessel to suit it for transport or to fit it for the commercial requirements of the consignees; and
- designed to be disconnected from its mooring during bad weather, operational emergencies, or for the purposes of maintenance or survey,

but does not include:

- a facility that is designed to remain permanently moored for the production life of the related oil field; or

- a vessel to which *Marine Order 47 (Mobile offshore drilling units) 2012* applies.

FSU means a vessel that is:

- constructed or modified to accept petroleum, directly or indirectly, from a sub-sea well or pipeline;
- capable of storing the petroleum and delivering it to another vessel or pipeline, but which is not capable of modifying the petroleum while in storage on the vessel; and
- designed to be disconnected from its mooring during bad weather, operational emergencies, or for the purposes of maintenance or survey,

but does not include:

- a facility that is designed to remain permanently moored for the production life of the related oil field; or
- a vessel to which *Marine Order 47 (Mobile offshore drilling units) 2012* applies.

petroleum has the same meaning as in section 7 of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

safety case, for a vessel, means the safety case for that vessel that was accepted or taken to be accepted by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) for the *Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2009*.

Note 1 Some terms used in this Order are defined in *Marine Order 1 (Administration) 2011* including:

- cargo vessel
- IMO
- Manager, Ship Inspection and Registration
- natural resources
- Navigation Act
- offshore industry mobile unit.

Note 2 Other terms used in this Order are defined in the Navigation Act, including:

- AMSA
- coastal sea of Australia
- foreign vessel
- inspector
- marine incident
- recognised organisation
- regulated Australian vessel
- safety certificate
- seafarer
- vessel.

3 Interpretation

The expression **to the satisfaction of the Manager, Ship Inspection and Registration**, or any similar expression appearing in this Order, means that the Manager, Ship Inspection and Registration, or a recognised organisation

authorised by the Manager, Ship Inspection and Registration for the purpose, may require the fitting, material, appliance, apparatus or arrangement referred to, to be demonstrated to be safe and effective for its intended purpose.

4 Application

- 4.1 This Order applies to each of the following vessels:
- (a) an FPSO or FSU that is a regulated Australian vessel;
 - (b) an FPSO or FSU that is a foreign vessel operating as an offshore industry mobile unit:
 - (i) in an Australian port; or
 - (ii) entering or leaving an Australian port; or
 - (iii) in the internal waters of Australia; or
 - (iv) in the territorial sea of Australia, other than in the course of innocent passage.
- 4.2 Where a provision of this Order is inconsistent with a provision of another Marine Order, the provision of this Order will prevail to the extent of the inconsistency.

5 Exemptions

- 5.1 A person may apply, in accordance with the application process set out in *Marine Order 1 (Administration) 2011*, for an exemption of a vessel from a requirement of this Order.
- 5.2 The decision maker for the application is the Manager, Ship Inspection and Registration.
- 5.3 The Manager, Ship Inspection and Registration may give an exemption for an FPSO or an FSU only if he or she is satisfied that:
- (a) compliance with the requirement would be unreasonable or impracticable; and
 - (b) giving the exemption would not contravene SOLAS.

Note *Marine Order 1 (Administration) 2011* deals with the following matters about exemptions and modifications:

- making an application
- seeking further information about an application
- the time allowed for consideration of an application
- imposing conditions on approval of an application
- notification of a decision on an application
- review of decisions.

6 Modifications

- 6.1 A person may apply, in accordance with the application process set out in *Marine Order 1 (Administration) 2011*, for approval for a modification of a requirement of the Order to apply to a vessel.
- 6.2 The decision maker for the application is the Manager, Ship Inspection and Registration.

- 6.3 The Manager, Ship Inspection and Registration may approve a modification of a requirement of this Order only if he or she is satisfied that:
- (a) the fitting, material, appliance, apparatus to be fitted or carried on the vessel, or the other provision to be made, is at least as effective as the requirement to which the modification is an alternative; and
 - (b) approval of the modification would not contravene SOLAS.

6A Review of decisions

A decision under this Order, other than a decision under section 5 or 6, is taken to be a reviewable decision for section 18 of *Marine Order 1 (Administration) 2011*.

Note 1 A decision under section 5 or 6 is also a reviewable decision for *Marine Order 1 (Administration) 2011* because it is mentioned in section 16 of that Order.

Note 2 For review by the Administrative Appeals Tribunal of decisions made under the Navigation Act about safety certificates for an FPSO or FSU — see section 313 of the Navigation Act.

7 Requirements — survey & certification

- 7.1 The owner of an FPSO or FSU must ensure that the vessel has each certificate that a Marine Order requires a cargo vessel to have.
- Penalty: 50 penalty units.
- 7.1A An offence against subsection 7.1 is a strict liability offence.
- 7.1B A person is liable to a civil penalty if the person contravenes subsection 7.1.
- Civil penalty: 50 penalty units.
- 7.2 The owner of an FPSO or FSU must ensure that either there is maintained in force in respect of the vessel a Certificate of Compliance safety certificate or the safety case in respect of the vessel adequately provides for the matters covered by a Certificate of Compliance.
- Penalty: 50 penalty units.
- 7.2A An offence against subsection 7.2 is a strict liability offence.
- 7.2B A person is liable to a civil penalty if the person contravenes subsection 7.2.
- Civil penalty: 50 penalty units.
- 7.3 If the Manager, Ship Inspection and Registration is satisfied that procedures and arrangements in place with the vessel's recognised organisation provide an equivalent level of safety to that achieved by inspecting the vessel's bottom in dry dock, that officer may allow in-water surveys in lieu of dry docking.
- 7.4.1 If an inspector determines that, in any respect, an FPSO or FSU does not comply with this Order or that the FPSO or FSU is not fit to be engaged in operations without danger to itself or to persons on board, the inspector may direct the master to cease such operations.
- 7.4.2 The master of an FPSO or FSU must comply with a direction given under subsection 7.4.1.
- Penalty: 50 penalty units.
- 7.4.2A An offence against subsection 7.4.2A is a strict liability offence.
- 7.4.2B A person is liable to a civil penalty if the person contravenes subsection 7.4.2.
- Civil penalty: 50 penalty units.

- 7.5 If the safety of an FPSO, FSU or a person on board an FPSO or FSU is endangered by the occurrence of a marine incident or a defect, other than in the production operations of the FPSO or FSU, the master must report the marine incident or defect:
- (a) within 4 hours after the incident or defect happens — using the approved form for initial reporting of an incident; and
 - (b) within 72 hours after the incident or defect happens — using the approved form for detailed reporting of the incident.

Penalty: 50 penalty units.

Note 1 **marine incident** is defined in subsection 14(1) of the Navigation Act.

Note 2 It is an offence not to report a marine incident to AMSA in the approved form within the prescribed period — see section 186 of the Navigation Act.

- 7.5A An offence against subsection 7.5 is a strict liability offence.
- 7.5B A person is liable to a civil penalty if the person contravenes subsection 7.5.

Civil penalty: 50 penalty units.

- 7.6 If an FPSO or FSU becomes less efficient or less seaworthy by reason of any alteration or damage or by reason of any alteration or damage to any fitting, material, appliance or apparatus of the FPSO or FSU, the master must give notice in accordance with *Marine Order 31 (Ship surveys and certification) 2006*.

Penalty: 50 penalty units.

- 7.7 An offence against subsection 7.6 is a strict liability offence.
- 7.8 A person is liable to a civil penalty if the person contravenes subsection 7.5.

Civil penalty: 50 penalty units.

Note A vessel that is not self-propelled and is not intended to be attached permanently to the well riser should have certificates of survey appropriate for a vessel of its size, and should comply with all requirements for issue of the certificates other than those relating to propelling machinery.

In accordance with internationally agreed interpretations, an FPSO or FSU is required to comply with MARPOL Annex I, except regulations 13G(4), (5) and (6). 13G(7) will only apply if a commercial voyage is undertaken.

FPSOs and FSUs are to be subjected to enhanced programme of inspections in accordance with IMO Resolution A.744(18) as amended. The operator of an FPSO or FSU may apply to the Manager, Ship Inspection and Registration in accordance with 7.3 for exemption from mandatory dry-docking as required by paragraph 2.2 of Resolution A.744(18), subject to such dry dockings being replaced by in-water surveys in accordance with recognised organisation requirements.

8 Certificates of compliance

- 8.1 For subsection 99(1) of the Navigation Act, a certificate of compliance is a safety certificate.
- 8.2 For paragraph 100(1)(b) of the Navigation Act, the criteria for the issue of a certificate of compliance for an FPSO or FSU are as follows:
- (a) an application has been made under section 99 of the Navigation Act to the issuing body for a certificate of compliance for the FPSO or FSU;
 - (b) the FPSO or FSU has been surveyed in accordance with *Marine Order 31 (Ship surveys and certification) 2006*;

- (c) the FPSO or FSU complies with Schedule 1.

Note *Marine Order 31 (Ship surveys and certification) 2006* sets out information about applying for safety certificates.

- 8.3 A certificate of compliance is valid for the same period as the cargo ship safety construction certificate for the vessel and must be endorsed each year in the same way.

Note For information about cargo ship safety construction certificates see *Marine Order 31 (Ship surveys and certification) 2006*.

- 8.4 For subsection 101(1) of the Navigation Act, the criteria for variation of a certificate of compliance for an FPSO or FSU are as follows:
- (a) a written application has been made to the issuing body setting out the kind of variation applied for;
 - (b) the vessel has a cargo ship safety construction certificate issued by an issuing body;
 - (c) the vessel complies with the survey requirements mentioned in *Marine Order 31 (Ship surveys and certification) 2006* that apply to the vessel;
 - (d) any surveys of the vessel required by the Manager, Ship Inspection and Registration are completed within the period mentioned in *Marine Order 31 (Ship surveys and certification) 2006* for the survey;
 - (e) the vessel complies with any condition imposed by the Manager, Ship Inspection and Registration.
- 8.5 For section 102 of the Navigation Act, the criteria for revocation by an issuing body of a certificate of compliance for an FPSO or FSU are as follows:
- (a) the vessel does not comply with Schedule 1;
 - (b) each required survey is not completed within the period mentioned in *Marine Order 31 (Ship surveys and certification) 2006*;
 - (c) the certificate is not endorsed by an issuing body in accordance with this Order;
 - (d) the vessel changes its country of registration;
 - (e) a criterion for revocation of a safety certificate other than a certificate of compliance issued for the FPSO or FSU is met;
 - (f) a safety certificate other than a certificate of compliance issued for the FPSO or FSU is revoked.

9 Safe manning

A safe manning document for an FPSO or FSU for the purposes of Regulation 13 of Chapter V of SOLAS may be obtained in the following manner:

- The owner of the FPSO or FSU should make application to the Manager, Ship Operations and Qualifications:
 - proposing the minimum safe manning level; and
 - providing such information as is necessary for the Manager, Ship Operations and Qualifications to assess the proposal in accordance with the principles contained in IMO Resolution A.890(21);

- If satisfied that the proposal complies with the principles contained in IMO Resolution A.890(21), the Manager, Ship Operations and Qualifications will issue a safe manning document in respect of the FPSO or FSU.
- emergency disconnection voyages (due to approaching cyclones or operational emergencies such as hydrocarbon leakage) of limited distance and duration (maximum 7 days).

Note In applying the principles contained in IMO Resolution A.890(21), the following operational modes may be considered for an FPSO or FSU:

- planned voyages for the purposes of dry-docking (international voyages);
- planned voyages for maintenance purposes (Australian coastal);

10 Operational matters

10.1 Transfer of material, appliances or personnel

- 10.1.1 A transfer operation, the mass of the loads to be handled and emergency procedures must be discussed and agreed between personnel on the FPSO or FSU and on attending vessels prior to commencement of the operation.
- 10.1.2 Throughout a transfer operation, direct communication must be maintained with the crane operator.
- 10.1.3 A personnel basket may be used to transfer persons between an FPSO or FSU and a vessel if:
- regard is to be given to the experience of the personnel with the use of such a device;
 - all personnel are to be briefed on the correct means of boarding, riding and disembarking the basket, with particular attention being paid to those who may not have used it previously;
 - an experienced person must accompany novices;
 - personnel baskets are not to be used for cargo except for small items of luggage that are being carried by passengers;
 - the maximum number of 4 passengers must never be exceeded; and
 - each person must be wearing an approved life jacket or survival suit.
- 10.1.4 Transfer operations must be undertaken only in accordance with the operating manual.
- 10.1.5 The master or, if a person has been appointed by the master to be in charge of the operation concerned, that person must ensure that no transfer of material, appliances or personnel takes place without the precautions in subsections 10.1.1 to 10.1.4 being observed.
- Penalty: 50 penalty units.
- 10.1.6 An offence against subsection 10.1.5 is a strict liability offence.
- 10.1.7 A person is liable to a civil penalty if the person contravenes subsection 10.1.6.
- Civil penalty: 50 penalty units.

10.2 Helicopter arrivals and departures

During helicopter arrivals at and departures from an FPSO or FSU, the master or, if a person has been appointed by the master to be in charge of the operation

Section 10

concerned, that person must ensure that there is present on or near the helideck, persons who:

- have been trained in fire-fighting procedures; and
 - are appropriately dressed and equipped for rescuing any persons aboard the helicopter and for fighting any outbreaks of fire,
- and that no other person is present.

Penalty: 50 penalty units.

10.2A An offence against subsection 10.2 is a strict liability offence.

10.2B A person is liable to a civil penalty if the person contravenes subsection 10.2.

Civil penalty: 50 penalty units.

10.3 Helicopter transfers

The master of an FPSO or FSU must not permit the transfer of persons and goods between helicopter and FPSO or FSU unless:

- (a) the owner or master has provided such arrangements, equipment, instructions and training as:
 - (i) are necessary and reasonable for emergency evacuation of persons from the FPSO or FSU; and
 - (ii) are appropriate and reasonable for the normal operations of the FPSO or FSU; and
- (b) the master is satisfied that:
 - (i) the equipment is maintained in working order and readily available for use; and
 - (ii) the specified training has been carried out.

Penalty: 50 penalty units.

Note Arrangements, equipment, instructions and training that comply with:

- (a) the Australian Code of Safe Practice for Ship-Helicopter Transfers, published by AMSA and available at any AMSA office; or
- (b) the International Chamber of Shipping Guide to Helicopter/Ship Operations, to the extent that it is not inconsistent with (a),

will be regarded as meeting the requirements of subsection 10.3.

10.3A An offence against subsection 10.3 is a strict liability offence.

10.3B A person is liable to a civil penalty if the person contravenes subsection 10.3.

Civil penalty: 50 penalty units.

10.4 Seafarers' responsibility

10.4.1 Each seafarer member must carry out the instructions determined by the owner or master under subsection 10.3.

Penalty: 50 penalty units.

10.4.1A An offence against subsection 10.4.1 is a strict liability offence.

10.4.1B A person is liable to a civil penalty if the person contravenes subsection 10.4.1.

Civil penalty: 50 penalty units.

10.4.2 Every crew member must generally take such action as is reasonable to ensure that transfers are carried out safely.

Schedule 1 Requirements

(section 8)

1 Helicopter facilities

1.1 Securing helicopters

A helicopter deck on an FPSO or FSU must be provided with recessed tie-down points suitable for securing a stationary helicopter.

1.2 Helicopter deck

Where a high fire risk space is located below a helicopter deck, such space must be insulated to a standard to the satisfaction of the Manager, Ship Inspection and Registration.

1.3 Helicopter facilities

An FPSO or FSU constructed or converted on or after 1 July 2000 must comply with IMO Resolution A.855(20) *Standards for on-board helicopter facilities*.

Note Attention is drawn to the booklet *Ship-Helicopter Transfers—Australian Code of Safe Practice*, published by AMSA. So far as possible, masters of FPSOs and FSUs should follow the guidelines in this booklet.

2 Fire detection and extinction

2.1 Fire pumps

2.1.1 At least two independently driven fire pumps should be provided, each arranged to draw directly from the sea and discharge into the fixed fire main and one of which is dedicated to fire-fighting duty in order to be available for such duty at all times.

2.1.2 Each fire pump must at least have the capacity to:

- deliver simultaneously a jet from each of any two fire hydrants fitted with a hose and 19 millimetre nozzle while maintaining a minimum pressure of 350 kilopascals at all hydrants; and
- in the case of a pump supplying a foam system for the protection of a helicopter deck, maintain a pressure of 700 kilopascals at the foam installation.

2.1.3 Where a fire pump is located in a space not normally manned, the Manager, Ship Inspection and Registration may require suitable provision to be made for remote starting of the pump and remote operation of associated suction and discharge valves.

2.1.4 A centrifugal pump connected to the fire main must be fitted with a non-return valve.

2.2 Fire main and hydrant valves

2.2.1 The fire main must, where practicable, be routed clear of hazardous areas and be arranged in such manner as to make maximum use of any thermal shielding or physical protection afforded by the structure of the FPSO or FSU.

2.2.2 The fire main must be provided with isolating valves so located as to permit optimum utilisation in the event of physical damage to any part of the main.

2.3 Firehoses

2.3.1 A fire hose must be provided for every hydrant.

2.3.2 A fire hose must be:

- constructed of material acceptable to the Manager, Ship Inspection and Registration;
- not more than 18 metres in length;
- provided with a dual purpose nozzle and the necessary couplings; and
- together with any necessary fittings and tools, kept ready for use in a conspicuous position near a hydrant or other connection.

2.4 Fire detection and alarm system

Manual fire alarm stations must be fitted at suitable locations throughout an FPSO or FSU.

2.5 Gas detection and alarm system

2.5.1 A fixed automatic gas detection and alarm system must be provided to the satisfaction of the Manager, Ship Inspection and Registration, so arranged as to:

- monitor continuously all enclosed areas of an FPSO or FSU in which an accumulation of flammable gas may occur; and
- indicate at the main control point by aural and visual means, the presence and location of an accumulation of flammable gas.

2.5.2 An FPSO or FSU must be provided with at least two portable gas monitoring devices, capable of accurately measuring a concentration of flammable gas.

2.6 Firemen's outfits

2.6.1 Each breathing apparatus provided must be self-contained.

2.6.2 Firemen's outfits must be so stored as to be easily accessible and ready for use, one such outfit being located within easy access of the helicopter deck.

2.7 Storage of gas cylinders

2.7.1 A cylinder of breathing medium for use in diving operations must be stowed separately from other gas cylinders.

2.7.2 Fire-extinguishing arrangements for the protection of areas or spaces where gas cylinders are stored, must be to the satisfaction of the Manager, Ship Inspection and Registration.

3 Radiocommunication installations

In addition to the equipment required by *Marine Order 27 (Radio equipment) 2009*, an FPSO or FSU must be fitted with radio equipment suitable for communicating with helicopters and, if in range, with the helicopter base station.

4 Operating manual

The vessel's Safety Management System required under the International Safety Management Code must include an operating manual to cover the vessel's operation as an FPSO or FSU.

Notes to Marine Order 60 (Floating offshore facilities) 2001

Note 1

Marine Order 60 (Floating offshore facilities) 2001 (in effect under subsection 343(2) of the *Navigation Act 2012*) as shown in this compilation comprises *Marine Order 60 (Floating offshore facilities) 2001* modified as indicated in the following tables.

Table of Orders

Year and number	Registration date	FRLI number	Commencement date	Application, saving or transitional provisions
<i>Marine Orders Part 60, Issue 2</i> (MO 2001/11)	8 May 2006	F2006B00672	1 January 2002	
<i>Marine Order 4 (Transitional modifications) 2013</i> (MO 2013/3)	30 May 2013	F2013L00871	1 July 2013	Section 3 and Schedules 1-42

Table of amendments

ad. = added or inserted am. = amended rep. = repealed rs. = repealed and substituted mod. = modified

Provision affected	How affected
1.....	mod. 2013/3
1A.....	mod. 2013/3
2.....	mod. 2013/3
3.....	mod. 2013/3
4.....	mod. 2013/3
5.....	mod. 2013/3
6.....	mod. 2013/3
7.....	mod. 2013/3
8.....	mod. 2013/3
9.....	mod. 2013/3
10.....	mod. 2013/3
Schedule 1.....	mod. 2013/3
