

1987 No. 311

MERCHANT SHIPPING

SAFETY

The Merchant Shipping (Submersible Craft
Operations) Regulations 1987

Made - - - - - 26th February 1987

Laid before Parliament 11th March 1987

Coming into force - 1st October 1987

The Secretary of State for Transport, in exercise of his powers under sections 16 and 17 of, and Schedule 5 to the Merchant Shipping Act 1974(a) and of all other powers enabling him in that behalf, hereby makes the following Regulations:—

Citation, commencement and interpretation

1.— (1) These Regulations may be cited as the Merchant Shipping (Submersible Craft Operations) Regulations 1987 and shall come into force on 1st October 1987.

(2) In these Regulations, unless the context otherwise requires—

“approved doctor” means a doctor approved by the Secretary of State as competent to examine pilots and crew;

“casualty” means—

- (a) loss or presumed loss or abandonment of or damage to a submersible craft or supporting apparatus; or
- (b) loss of life or serious injury to any person occurring in the course of a submersible operation; or
- (c) any incident involving serious danger to the life or health of any person in a submersible craft;

“crew” means the person or persons within the submersible craft required to operate the craft or its equipment;

“diver lock out submersible craft” means a submersible craft a compartment of which allows underwater access for personnel and with a means of controlling the differential pressure between the inside and outside environment;

“Diving Operation Regulations” means the Merchant Shipping (Diving Operations) Regulations 1975(b), the Submarine Pipe-lines (Diving Operations) Regulations 1976(c), and the Diving Operations at Work Regulations 1981(d), and, except for the purposes of regulation 12(2), includes any laws or other regulations of other countries having similar effect in such countries or their territorial waters or other waters under their jurisdiction;

“master” means the person in charge of the parent craft;

(a) 1974 c. 43.

(b) S.I. 1975/116, amended by S.I. 1981/399.

(c) S.I. 1976/923.

(d) S.I. 1981/399.

“operations controller” means the person appointed by the owner pursuant to regulation 5(1)(d);

“operations manual” means the manual referred to in regulation 5(1)(h) and Schedule 1;

“parent craft” means any vessel, structure or place from which a submersible craft is launched or recovered or from which it is supported or operated;

“pilot” means the person appointed to command the submersible craft or, in the case of a submersible craft which is an atmospheric diving suit, to operate that diving suit;

“submersible craft” means any description of manned mobile submersible apparatus which is designed to maintain some or all of its occupants at or near atmospheric pressure including free, self-propelled, tethered, towed or bottom contact propelled apparatus and atmospheric diving suits. A diving bell is not a submersible craft for the purposes of these Regulations; a “diving bell” means any compression chamber which is capable of being manned and is used or designed for use under the surface of water in supporting human life being a chamber in which any occupant is or may be subjected to a pressure of more than 300 millibars above atmospheric pressure during normal operation;

“submersible operation” means any operation of a submersible craft and its supporting equipment to which these Regulations apply;

“supporting equipment” means the launching and recovery gear used in connection with a submersible craft;

“United Kingdom ship” means such a ship as defined in section 21(2) of the 1979 Merchant Shipping Act(a).

(3) References in the Regulations to the owner of a submersible craft or supporting equipment, are for the purpose of the application of any provisions of these Regulations in relation to any particular submersible craft or supporting equipment, references to the person who at the relevant time has the management of that submersible craft or supporting equipment.

(4) In these Regulations:—

- (a) a reference to a numbered regulation is, unless otherwise stated, a reference to the regulation of that number in these Regulations;
- (b) a reference to a numbered schedule is a reference to the schedule of that number of these Regulations.

Application and performance

2.— (1) These Regulations apply to every operation of a submersible craft and its supporting equipment—

- (a) which takes place within the United Kingdom or in waters which are adjacent thereto and within the seaward limits of territorial waters, or
- (b) wherever it takes place, in which the submersible craft is launched, recovered, operated or supported from, or comprises a United Kingdom ship.

(2) These Regulations do not apply to submersible operations which are not carried on in the course of or in connection with any trade, or business or by any person for hire or reward.

(3) These Regulations do not affect the operation of any Regulations relating to diving operations from diver lock-out submersible craft.

Master of parent craft

3. The master of a parent craft shall—

- (a) ensure that no operation or activity which is likely to be a danger to any person engaged in the submersible operation is carried on from or on the parent craft;
- (b) before commencing any activity which in his view might affect the safety of the submersible operation, advise the operations controller;

(a) 1979 c. 39. As to the meaning of “citizen of the United Kingdom and Colonies” referred to in section 21(2), see now the British Nationality Act 1981 (c. 61), section 51(3).

- (c) ensure that the area of the parent craft on or from which any part of the submersible operation is carried out is maintained in a condition suitable and safe for that purpose;
- (d) ensure that the operations controller is provided before the submersible operation begins and at adequately frequent intervals during the course of such operation with meteorological and oceanological forecasts for the relevant area;
- (e) warn the operations controller of the approach of any vessel which is or might become a hazard to the parent craft or the submersible craft;
- (f) take such steps as circumstances may require to warn vessels in the vicinity that a submersible operation is in progress from or near the parent craft;
- (g) in the event of a casualty ensure notification by the operations controller to the owner as required under regulation 13.

Owners of submersible craft

4. The owner of a submersible craft shall take all practicable steps to ensure that these Regulations are in all respects complied with by those persons upon whom duties are imposed by these Regulations.

5.— (1) The owner of a submersible craft which is engaged or about to engage in a submersible operation shall make adequate arrangements for the safe conduct of the submersible operation and in particular and without prejudice to the generality of the foregoing shall—

- (a) ensure that there is a safe and suitable platform or other area of the parent craft from which the submersible craft can be launched, recovered or supported;
- (b) ensure that all plant and equipment necessary for the safe conduct of the submersible operation is available for use;
- (c) ensure that there are adequate and effective means of communication and means of recording communications between the submersible craft and the place from which the submersible operation is controlled;
- (d) appoint in writing a person to control the submersible operation (in these Regulations called “the operations controller”); such person shall be competent and have adequate knowledge of the techniques to be used in the submersible operation;
- (e) appoint in writing to command the submersible craft one or more persons who are qualified under regulation 9 to pilot that submersible craft;
- (f) appoint sufficient personnel other than those required by sub-paragraphs (d) and (e) of this paragraph to enable the submersible operation to be carried out in a safe manner;
- (g) subject to the provisions of regulation 2(3) require all persons engaged in the submersible operation to obey the instructions of the operations controller;
- (h) issue an operations manual relating to the matters specified in this regulation and Schedule 1 for regulating the safety and conduct of all persons engaged in the submersible operation (under his control);
- (i) where the submersible operation includes diving operations from a diver lock out submersible craft, ensure that the operations controller is provided with a copy of the diving manual or Rules issued in accordance with the relevant Diving Operation Regulations applicable at that time;
- (j) provide the operations controller with an operations log book;
- (k) prepare a contingency plan taking into account all rescue services which are readily available and that can be called upon in an emergency, and make copies of that plan available to the operations controller, the master, the pilot and to all the authorities and rescue services necessary for its effective execution;
- (l) where the submersible craft is a one-man submersible craft, provide—
 - (i) a second fully operational submersible craft capable of operating in the maximum depth of water in which the craft is to be located together with a pilot, present at the work site; or
 - (ii) a second fully operational submersible craft and pilot capable, together with all necessary equipment, of being transported to the work site and being ready to dive within a period of not more than one third of the life

support time which would remain on completion of any planned operation of the submersible craft originally taking part in the operation or within 24 hours of the emergency arising whichever is the shorter; or

(iii) an operational diving team fully mobilised at the work site capable of diving into the depth in which the submersible craft is to operate within a period of 10 hours; or

(iv) an equivalent proven effective arrangement approved by the Secretary of State available for immediate deployment and capable of effecting a recovery within the time limits prescribed in sub-paragraph (ii) of this paragraph;

(m) inform any harbour or marine traffic control authority whose authority extends to the area where the submersible operation is to take place of the nature and proposed time and location of the submersible operation;

(n) ensure that there are in force in respect of the submersible craft and supporting equipment the safety certificates issued under regulation 5 of the Merchant Shipping (Submersible Construction and Survey) Regulations 1981(a);

(o) ensure a list is maintained of all personnel involved in the submersible operation which shall include the following information about each person:—

(1) his name;

(2) his address;

(3) capacity in which he is employed;

(4) the name, address and relationship of his next of kin.

(2) The owner of a submersible craft shall retain the operations log-book referred to in regulation 5(1)(j) for at least two years after the date of the last entry made therein.

Operations controller

6. Every operations controller shall ensure that the submersible operation for which he has been appointed is being carried out safely and in accordance with the operations manual issued by the owner of the submersible craft pursuant to regulation 5(1)(h).

7.— (1) The operations controller shall not permit the submersible operations to begin unless—

(a) the master has confirmed in the light of his duties under regulation 3 that it is safe to do so;

(b) there is produced to him a valid safety certificate issued by the Secretary of State under the Merchant Shipping (Submersible Craft Construction and Safety) Regulations 1981 in respect of the submersible craft and its supporting equipment;

(c) regulation 5(1)(m) has been complied with;

(d) records show that post-dive checks carried out on the submersible craft and all its associated systems after its last previous dive and that any defects indicated by such checks have been made good and signed for by the person responsible for maintenance of the submersible craft and countersigned by the operations controller;

(e) a pre-dive check on the submersible craft and its associated systems has been carried out within 6 hours of the commencement of the dive by the pilot and the pre-dive check list has been signed by the pilot and countersigned by the operations controller;

(f) he has ensured that the pilot is familiar with the matters referred to in Schedule 1 and has been briefed on and provided with a copy of the emergency procedures laid down in the operational manual;

(g) the pilot and the crew (if any) of the submersible craft have been fully briefed as to their duties and mission;

(h) the wind, sea state, visibility and predicted tidal currents are within the specified limits for safe operation as detailed in the operations manual;

(a) S.I. 1981/1098, amended by S.I. 1987/306.

- (i) the submersible craft has adequate mid-water control, and the water depth is not greater than the maximum operating depth of the submersible craft;
- (j) the pilot and crew have had adequate rest;
- (k) the supporting equipment has been checked and is in working order;
- (l) a sufficient number of competent persons are present to operate any plant, equipment, or other facilities necessary for the safe conduct of the submersible operation.

(2) The operations controller shall ensure that the communications systems referred to in regulation 5(1)(c) are tested at the earliest possible opportunity in the submersible operation and are in good order.

8. The operations controller shall ensure that an accurate record of the matters specified in Schedule 2 in respect of each dive made by the submersible craft shall be entered in the operations log book referred to in regulation 5(1)(j) and shall countersign the entries after each dive by the submersible craft has been completed.

Qualifications of pilots

9. No person shall be qualified to pilot a submersible craft unless he has—

- (a) had previous experience in, and is competent in, the operation of the submersible craft which he is to pilot; or
- (b) (i) received adequate theoretical and practical instruction in the operation of that submersible craft under the supervision of a person who is himself qualified under paragraph (a) above to operate that submersible craft; and
(ii) demonstrated his ability to control the submersible craft and shown himself to have the necessary practical and theoretical knowledge of the submersible craft; and
- (c) holds a current medical certificate issued not more than 12 months previously by an approved doctor certifying that he is fit to perform the duties of a pilot in that type of submersible craft.

10. Notwithstanding regulation 9(b), a pilot in a one-man submersible craft or atmospheric diving suit while undergoing instruction for the purpose of obtaining the practical experience referred to in regulation 9(b) shall be exempt from the requirements of that paragraph provided that—

- (i) the training dives are being carried out in suitable environmental conditions; and
- (ii) during the training dives he is continuously under the direct supervision of a person qualified under regulation 9(a) to operate that submersible craft.

Duties of pilot

11. The pilot of a submersible craft shall—

- (a) so operate the submersible craft as to ensure its safe operation and the safety of any crew and passengers;
- (b) carry out the pre- and post-dive checks described in regulation 7;
- (c) be fully conversant with the operational and emergency procedures to be adopted and shall brief any passengers and crew accordingly;
- (d) ensure that the submersible craft has an adequate reserve of buoyancy and stability;
- (e) keep a pilot's log book, which shall contain his signature and photograph, and enter therein the matters specified in Schedule 3 which entries shall be countersigned after each dive by the operations controller;
- (f) retain that pilot's log book for a period not less than 2 years from the date of the last entry made therein.

Crew and passengers

12.— (1) Every member of the crew of, and every passenger in or on a submersible craft, subject to the provisions of regulation 2(3) shall—

- (a) obey the orders of the pilot;
- (b) observe all safety precautions; and
- (c) be conversant with emergency procedures.

(2) Every member of the crew shall unless holding a current medical certificate issued pursuant to the relevant Diving Operations Regulations hold a current medical certificate issued not more than 12 months previously by an approved doctor certifying that he is fit to participate in a submersible operation.

Reports of casualties

13. Where a casualty has occurred the operations controller shall—

- (a) in the most expeditious manner practicable immediately inform the owner of the submersible craft when and where it occurred giving him the name of any person killed, lost or injured;
- (b) enter in the operations log book the particulars of the casualty as specified in Schedule 4 and sign that entry;
- (c) within three days of the casualty deliver a copy of such particulars to the owner of the submersible craft.

14. The owner of a submersible craft shall—

- (a) upon being informed of a casualty as soon as reasonably practicable give the Secretary of State such information about the casualty as he may have;
- (b) within three days of receiving the copy particulars referred to in regulation 13(c) deliver a copy of those particulars together with his own name and address and the name and address of the pilot of the submersible craft to the Secretary of State;
- (c) if it comes to his knowledge that any person has died as a result of the casualty, inform the Secretary of State of the death notwithstanding, if such be the case, that he is required to send a return of the death to the Registrar General of Shipping and Seamen.

Returns of injuries

15.— (1) The owner of a submersible craft shall make a return of every accident, injury or disease (other than an injury already notified under regulation 14) suffered by any person, in connection with or working from the submersible craft who is injured in the course of any submersible operation and by reason of which such person is disabled from work for a continuous period of three days or more.

(2) A return under this regulation—

- (a) shall relate to a period of three months ending on the last day of March, June, September or December;
- (b) shall be made to the Secretary of State within 10 days after the end of the period to which it relates; and
- (c) shall contain particulars of the following—
 - (i) the registration number, name or other designation of the submersible craft;
 - (ii) the name and address of the owner of the submersible craft;
 - (iii) the name of each person who suffered an accident, injury or disease and the name and address of his employer; and
 - (iv) the date and time of any accident or injury and the date when the symptoms of any disease were first observed;and a brief description of the accident, injury or disease.

Inquiries and investigations

16. Section 728 of the Merchant Shipping Act 1894(a), sections 55 to 58 of the Merchant Shipping Act 1970(b), section 27 of the Merchant Shipping Act 1979 and the Merchant Shipping (Formal Investigations) Rules 1985(c) shall apply (subject to the modifications set out in Schedule 5 to the Regulations) to casualties to which these Regulations apply when they involve any submersible craft or supporting apparatus which is not a ship, as those sections and Rules apply to casualties involving ships, and as if references in those sections and Rules, in whatever terms, to ships or activities connected therewith included references to submersible craft or supporting apparatus, or activities connected therewith.

17. When a casualty involving submersible craft, or supporting apparatus has been investigated by an Inspector appointed under the provisions referred to in regulation 16, the Secretary of State may cause a report on the incident to be made public at such time and in such manner as he thinks fit.

Offences

18.— (1) A person who contravenes any provision of these Regulations shall be guilty of an offence.

(2) The punishment for an offence created by these Regulations shall be—

- (a) on summary conviction a fine not exceeding £2,000;
- (b) on conviction on indictment imprisonment for a term not exceeding two years, or a fine, or both.

(3) In proceedings for an offence under this regulation it shall be a defence for the accused to prove—

- (a) that he exercised all due diligence to prevent commission of the offence; and
- (b) that the offence was committed without his consent, connivance or default.

Proceedings

19.— (1) In any proceedings for an offence under these Regulations an averment in any process of the fact that anything was done or situated within waters to which the Act applies shall, unless the contrary be proved, be sufficient evidence of the fact as stated in the averment.

(2) Any proceedings for an offence under these Regulations may be taken, and the offence be treated for all incidental purposes as having been committed, in any place in the United Kingdom.

(3) These Regulations shall apply to persons, whether or not British subjects, and to companies, whether or not incorporated under the law of any part of the United Kingdom.

Signed by authority of
the Secretary of State
26th February 1987

Michael Spicer
Parliamentary Under Secretary of State,
Department of Transport

(a) 1894 c. 60.

(b) 1970 c. 36: sections 55 and 56 were amended by section 32 of the Merchant Shipping Act 1979 (c. 39).

(c) S.I. 1985/1001.

MATTERS IN RESPECT OF WHICH WRITTEN PROCEDURES ARE TO BE
MADE IN THE OPERATIONS MANUAL

Personnel:

1. Chain of command.
2. Responsibilities, authority and duties.

Operational Planning:

1. Mission planning.
2. Safety planning.
3. Movement and position reporting.
4. Operational environmental limitations.

Operational Procedures:

1. Planned maintenance.
2. Pre and post dive check-lists.
3. Maintenance of pilots, submersible operations, surface and underwater communications logbooks.
4. Pre and post dive briefings.
5. Routine operational procedures.
6. Submersible craft communications procedures.
7. Support craft position.
8. Estimation of stability and reserve of buoyancy.
9. In the case of diver lock-out submersible craft particular aspects relating to diving from it.

Emergency Planning:

1. Problem identification.
2. Status of equipment and support services.
3. Self-help plan.
4. Outside help plan.
5. Diving or other medical services.

Emergency Procedures:

1. Position marking.
2. Initiation responsibilities.
3. Search procedures for lost submersible craft.
4. Recovery of disabled submersible craft.
5. Submersible craft emergency procedures.

Emergency Equipment:

1. Parent craft.

2. Submersible craft.
3. Launch and recovery.
4. Ancillary equipment.
5. Communications.

SCHEDULE 2

Regulation 8

MATTERS IN RESPECT OF WHICH ENTRIES ARE TO BE MADE IN THE SUBMERSIBLE CRAFT OPERATIONS LOGBOOK

- (a) the name of the submersible craft owner;
- (b) the name or designation of the submersible craft;
- (c) the date(s) on which, and the period during which the submersible craft made its dive;
- (d) the name or other designation of the parent craft, offshore installation or work site from which the submersible operation is carried on and the location of that craft, offshore installation or work site;
- (e) the names of the submersible craft crew, and of any passengers, engaged in the dive and their respective duties;
- (f) the times of the main events of the dive;
- (g) the maximum depth reached in the course of the dive;
- (h) the nature of the submersible operation with a description of the work carried out and problems encountered;
- (i) the weather and bottom conditions;
- (j) any other factors relevant to the safety or health of the persons engaged in the operation;
- (k) particulars of any emergency which occurred during operation and of any action taken;
- (l) particulars of any environmental factors affecting the operation;
- (m) particulars of any casualty which occurred during the operation.

SCHEDULE 3

Regulation 11(e)

MATTERS IN RESPECT OF WHICH ENTRIES ARE TO BE MADE IN THE SUBMERSIBLE CRAFT PILOT'S LOGBOOK

The following matters shall be entered in the pilot's logbook in respect of each submersible operation in which he takes part:—

- (a) the name and address of the submersible craft owner;
- (b) the name or designation of the submersible craft;
- (c) the date and dive number of the submersible craft;
- (d) the name or other designation and the location of the parent craft;
- (e) the area of operation and the maximum depth reached;
- (f) the time from shutting the submersible craft hatch to opening the hatch on completion of the dive;
- (g) the task(s) undertaken by the submersible craft;
- (h) details of any diving operations carried out from the submersible craft;
- (i) any other factors relevant to the safety or health of the crew or passengers of the submersible craft.

SCHEDULE 4

Regulation 13(b)

PARTICULARS OF A CASUALTY

1. The date and time of the casualty.
2. Where the casualty occurred on board the submersible craft, the place on board the craft where, and the position of the craft when, the casualty occurred.
3. Where the casualty occurred other than on board the submersible craft, the place where, and the position of the craft when, the casualty occurred.
4. A description of the casualty, and of any submersible operation being carried out, and any plant or equipment being used, at the time the casualty occurred.

5. A description of any damage sustained by the submersible craft or any plant or equipment at the time the casualty occurred and the name or other designation and port or place of registry (if any) of any other craft involved.

6. The name of any person killed, lost or injured in the casualty, the name and address of his employer and a description of any injury, including an injury resulting in death, sustained by any person in the casualty.

7. The name and address of any witness to the casualty and the name and address of his employer.

SCHEDULE 5

Regulation 16

MODIFICATION OF ENACTMENTS

The following are the modifications of enactments referred to in regulation 16:—

I. SECTION 728 OF THE MERCHANT SHIPPING ACT 1894

In section 728 the following shall be substituted for paragraph (b)—

“(b) whether the provisions of the Merchant Shipping (Submersible Craft Operations) Regulations 1986 have been complied with”.

II. SECTIONS 55 TO 58 OF THE MERCHANT SHIPPING ACT 1970

(1) Wherever the words “this Act” occurs there shall be substituted “this Act as modified by the Merchant Shipping (Submersible Craft Operations) Regulations 1986”.

(2) For section 55 there shall be substituted—

“(Where any casualty has occurred to which the Merchant Shipping (Submersible Craft Operations) Regulations 1986 apply, the Secretary of State—

- (i) may cause a preliminary inquiry into the casualty to be held by a person appointed for the purpose by the Secretary of State and any person so appointed shall have the powers conferred on an inspector by section 27 of the Merchant Shipping Act 1979;
- (ii) may (whether or not a preliminary inquiry into the casualty has been held) cause a formal investigation into the casualty to be held, if in England, Wales or Northern Ireland, by a Wreck Commissioner and, if in Scotland by the Sheriff.”.

(3) In section 56(1) the words “and if any question as to the cancellation or suspension of an officer’s certificate is likely to arise, the assistance of not less than two assessors” shall be omitted.

(4) In section 58(1) the words “for the conduct of inquiries under sections 52 and 54 of this Act and” shall be omitted.

III. THE MERCHANT SHIPPING (FORMAL INVESTIGATIONS) RULES 1985

(1) For the words “shipping casualty” and “shipping casualties” wherever they appear there shall be substituted the words “casualty” and “casualties” respectively.

(2) For rule 12 there shall be substituted—

“12. At the end of the formal investigation the wreck commissioner shall make a report on the case to the Secretary of State including his and the assessor’s, or assessors’, findings as to the reasons for the casualty or incident or as to any particular matter relating thereto, or as to the conduct or any person implicated therein”.

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations relate to the operation of manned submersible craft in United Kingdom waters, or elsewhere when the submersible craft is operated from, or comprises a United Kingdom ship.

The Regulations impose operational safety requirements and provide for the reporting of casualties and other accidents which may occur in the course of such operations.

The Regulations lay duties on the owner of the submersible craft relating to the provision of the necessary equipment and an Operations Manual detailing the procedures to be followed in submersible operations and on the master of the parent craft in ensuring that the operation is carried on from a safe place and in a safe manner.

They provide for the appointment of an Operations Controller to exercise immediate control of the submersible operations, for ensuring the maintenance of log books, and for ensuring that the submersible pilot is familiar with the operational and emergency procedures and is fully briefed as to the mission and on the anticipated environmental conditions during the mission. The Regulations require the submersible craft pilot to be competent to command that particular type of submersible craft and that all the crew hold a current medical certificate. Requirements are laid down as to matters which are to be included in the operations manual and log books.

They introduce requirements relating to casualties involving submersible craft and the powers conferred on the Secretary of State to direct an inspector to investigate such casualties.