

2021 No.000

MERCHANT SHIPPING

SAFETY

The Merchant Shipping (Nuclear Ships) Regulations 2021

<i>Made</i>	- - - -	***
<i>Laid before Parliament</i>		***
<i>Coming into force</i>	- -	***

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SCHEDULE — Amendments

The Secretary of State, after consulting the persons referred to in section 86(4) of the Merchant Shipping Act 1995^(a), and in exercise of the powers conferred by sections 85(1), (3) and (5) to (7), 86(1)(a), (b), (c) and (d), 302(1) and 306A of that Act and article 2 of the Merchant Shipping (Control of Pollution) (SOLAS) Order 1998^(b), and with the consent of the Treasury, makes the following Regulations.

(a) 1995 c. 21; sections 85 and 86 were amended by the Merchant Shipping and Maritime Security Act 1997 (c. 28), sections 8 and 29(2) and Schedule 7. Section 85 was amended by the British Overseas Territories Act 2002 (c. 8), section 2(3). Section 306(A) was inserted by the Deregulation Act 2015 (c. 20), section 106. There are other amendments but none is relevant.
(b) S.I. 1998/1500.

PART 1

Preliminary

Citation, commencement and amendments

- 1.—(1) These Regulations may be cited as the Merchant Shipping (Nuclear Ships) Regulations 2021 and come into force on [DATE].
- (2) The amendments listed in the Schedule have effect.

Interpretation

- 2.—(1) In these Regulations—

“Certifying Authority” has the meaning given to it in regulation 4 of the Merchant Shipping (Survey and Certification) Regulations 2015(a) (certifying authorities);

“Chapter I” means Chapter I in the Annex to the Convention (general provisions);

“Chapter VIII” means Chapter VIII in the Annex to the Convention (nuclear ships);

“construction” in the context of a nuclear ship means the point at which the keel is laid or which is at a similar stage of construction, and “similar stage of construction” means the stage at which—

- (a) construction identifiable with a specific ship begins; and
 - (b) assembly of that ship has commenced comprising at least 50 tons or 1% of the estimated mass of all structural material, whichever is less,
- and “constructed” is to be construed accordingly;

“Convention” means the International Convention for the Safety of Life at Sea, 1974(b);

“Convention country” means a country or territory which is either a country the Government of which is party to the Convention or a territory to which the Convention extends whether or not it is subject to the amendments to, or reservations in respect of, the Convention;

“initial survey” means the survey of that description in Merchant Shipping Notice 1751 (Amendment 1) (M+F);

“Merchant Shipping Notice” means a notice described as such and issued by the Maritime and Coastguard Agency (an executive agency of the Department for Transport) and includes a reference to any document amending or replacing that notice which is considered by the Secretary of State to be relevant from time to time and is specified in a Merchant Shipping Notice;

“Nuclear Code” means the Code of Safety for Nuclear Merchant Ships, as adopted by International Maritime Organization Resolution A.491(XII) on 19th November 1981(c);

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- (a) S.I. 2015/508. There are amending instruments but none is relevant.
 - (b) Cmnd 7874. The Convention may be obtained in copy from the International Maritime Organization (IMO) of 4 Albert Embankment, London SE1 7SR or found on the Foreign and Commonwealth Office treaties database (<https://treaties.fco.gov.uk/awweb/pdfopener?md=1&did=79786>). The Convention was modified by its Protocol of 1978 (Cmnd. 8277) (<https://treaties.fco.gov.uk/awweb/pdfopener?md=1&did=68013>), which was replaced and abrogated by the Protocol of 1988 (Cm 5044) (<https://treaties.fco.gov.uk/awweb/pdfopener?md=1&did=69573>) with respect to the parties to the 1988 Protocol. The amendments to the Convention are available from the IMO or found on the Foreign and Commonwealth Office treaties database (<https://treaties.fco.gov.uk/responsive/app/consolidatedSearch/>). Hard copies of the Command Papers are available for inspection free of charge but by appointment at the Parliamentary Archives, Houses of Parliament, London SW1A 0PW. The Parliamentary Archives catalogue numbers for the Command Papers are HL/PO/JO/10/11/2031/2878 (Cmnd 7874), HL/PO/JO/10/11/1959/2032 (Cmnd 8277) and HL/PO/JO/10/11/3156/2280 (Cm 5044).
 - (c) The Nuclear Code, as adopted by the IMO, comprises guidance only but the provisions of the Code referred to in these Regulations are made mandatory.

“nuclear propulsion plant” means the total ship main propulsion system including the nuclear steam supply system;

“nuclear ship” means any merchant ship, the normal mode of propulsion of which is based upon nuclear energy and whose characteristics are those of conventional displacement ships and “United Kingdom nuclear ship” is to be construed accordingly;

“Nuclear Ship Safety Certificate” means either a “Nuclear Passenger Ship Safety Certificate” or a “Nuclear Cargo Ship Safety Certificate” issued in the circumstances described in regulation 10 of Chapter VIII;

“nuclear steam supply system” means that part of a nuclear propulsion plant intended for steam generation;

“reactor installation” means the total ship main propulsion system including the nuclear steam supply system;

“prescribed fee” means the fee prescribed by the Secretary of State under section 302 of the Merchant Shipping Act 1995;

“renewal survey” means the survey of that description in Merchant Shipping Notice 1751 (M+F) subject to the requirement that it is to be carried out no less frequently than once a year;

“sea” includes any estuary or arm of the sea but does not include Category A, B, C or D waters and for the purposes of this definition “Category A, B, C or D waters” means the waters specified as such in Merchant Shipping Notice 1837(M) Amendment 2(a);

“valid” means in force and “validity” is to be construed accordingly.

(2) Any reference in these Regulations to the Nuclear Code includes any amendment or replacement of that Code which is considered by the Secretary of State to be relevant from time to time and which is specified in a Merchant Shipping Notice.

(3) Any reference in the Nuclear Code to a matter that is expressed as a matter that “should” be discharged, must be read as an obligation.

Application

3.—(1) Subject to paragraphs (2) and (3), these Regulations apply to nuclear ships which are—

- (a) United Kingdom nuclear ships, wherever they may be; and
- (b) non-United Kingdom nuclear ships while they are within United Kingdom waters.

(2) These Regulations do not apply to—

- (a) ships of war and naval auxiliaries;
- (b) ships owned or operated by a State and engaged only on governmental non-commercial service.

(3) A non-United Kingdom nuclear ship flying the flag of a State which is not a party to the Convention is not subject to these Regulations if it would not have been in United Kingdom waters but for stress of weather or any other circumstances which neither the master nor the owner or the charterer could have prevented.

(4) Where persons are on board a nuclear ship as a consequence of—

- (a) the circumstances described in paragraph (3); or
- (b) an obligation laid upon the master to carry shipwrecked or other persons(b),

(a) Merchant Shipping Notice 1837(M) Amendment 2 is available on <https://www.gov.uk/government/publications/msn-1837-m-amendment-2-categorisation-of-waters>, and in hard copy from the Maritime and Coastguard Agency of Spring Place, 105 Commercial Road, Southampton SO15 1EG (telephone 020 3817 2000 and email infoline@mcga.gov.uk).

(b) Regulation 33 in Chapter V of the Convention (safety of navigation) places an obligation on the master to provide assistance to persons in distress at sea and this obligation is implemented in the Merchant Shipping (Safety of Navigation) Regulations 2020 (S.I. 2020/673).

those persons are not to be taken into account for the purpose of determining the application to that ship of any provision of these Regulations.

(5) For the purposes of this regulation, “non-United Kingdom nuclear ship” means any nuclear ship other than a United Kingdom nuclear ship.

Ambulatory reference

4.—(1) In these Regulations, any reference to Chapter I or Chapter VIII is to be construed—

- (a) as a reference to Chapter I or Chapter VIII as modified from time to time; and
- (b) as, if Chapter I or Chapter VIII is replaced, a reference to the replacement.

(2) For the purposes of paragraph (1), Chapter I or Chapter VIII is modified or replaced if the modification or replacement takes effect in accordance with Article VIII of the Convention.

(3) A modification or replacement of Chapter I or Chapter VIII has effect at the time such modification or replacement comes into force in accordance with Article VIII of the Convention.

Equivalentents

5.—(1) Where these Regulations or the Nuclear Code require that—

- (a) a particular fitting, material, appliance or apparatus be fitted on, or carried in, a nuclear ship;
- (b) any particular arrangement be made on, or in relation to a nuclear ship; or
- (c) any particular provision be made in relation to a nuclear ship,

the Secretary of State may approve any other fitting, material, appliance, apparatus, arrangement or other provision if satisfied that it is at least as effective as that required by these Regulations or the Nuclear Code, as the case may be.

(2) An approval given under paragraph (1) may, on the giving of reasonable notice, be continued, altered or cancelled.

(3) Any approval given under paragraph (1), or a continuation, alteration or cancellation under paragraph (2), must—

- (a) be in writing;
- (b) specify the date on which it takes effect; and
- (c) specify the terms, if any, on which it is given.

(4) The requirement that the approval referred to in paragraph (1), or a continuation, alteration or cancellation under paragraph (2), be in writing is satisfied where the text of the approval, continuation, alteration or cancellation is—

- (a) transmitted by electronic means;
- (b) received in legible form; and
- (c) capable of being used for subsequent reference.

(5) An approval given under paragraph (1), or a continuation, alteration or cancellation under paragraph (2), must be recorded in the safety assessment referred to in regulation 13 (safety assessment – operational requirements), together with an analysis of the reliability of the equivalent provision approved.

Approvals

6.—(1) The Secretary of State, or any person authorised by the Secretary of State, may grant an approval in relation to a United Kingdom nuclear ship for anything in the Nuclear Code requiring to be—

- (a) approved by the Administration of the State whose flag the ship is entitled to fly;
- (b) done to the satisfaction of such Administration; or

(c) acceptable to that Administration^(a).

(2) An approval granted under paragraph (1) or otherwise under these Regulations, may, on the giving of reasonable notice, be continued, altered or cancelled.

(3) Any approval granted under paragraph (1) or otherwise under these Regulations, or a continuation, alteration or cancellation under paragraph (2), must—

- (a) be in writing;
- (b) specify the date on which it takes effect; and
- (c) specify the terms, if any, on which it is given.

(4) The requirement that an approval granted under paragraph (1) or otherwise under these Regulations, or a continuation, alteration or cancellation under paragraph (2), be in writing is satisfied where the text of the approval, continuation, alteration or cancellation is—

- (a) transmitted by electronic means;
- (b) received in legible form; and
- (c) capable of being used for subsequent reference.

(5) Paragraphs (2) to (4) do not apply to an approval given under regulation 18 (manning and training) or in relation to paragraph 7.6 in Chapter 7 of the Nuclear Code (manning, training, qualification, updating of knowledge, drills and musters).

PART 2

Special requirements for nuclear ships

Safety assessment

7.—(1) Prior to the construction of a United Kingdom nuclear ship, a safety assessment must be prepared for submission to the Secretary of State for approval which—

- (a) in accordance with regulation 7 in Chapter VIII (safety assessment), evaluates the nuclear power plant and safety of the ship in order to ensure that there are no unreasonable radiation or other hazards, at sea or in port, to the crew, passengers or public, or to waterways, food or water resources;
- (b) includes the matters prescribed by the following provisions in the Nuclear Code—
 - (i) paragraphs 1.4.5 and 1.4.6 in Chapter 1 (principles of risk assessment);
 - (ii) paragraph 7.2.2 in Chapter 7 (content of safety assessment); and
 - (iii) where appropriate, paragraph 8.1.7 in Chapter 8 (specification of surveys etc.); and
- (c) takes into account any advancements made in nuclear technology and safety standards.

(2) Subject to payment of the prescribed fee, the Secretary of State may approve the safety assessment referred to in paragraph (1) if satisfied that the requirements in that paragraph have been met.

Design and construction of nuclear ships

8. A nuclear ship must be designed and constructed in accordance with the requirements of—

- (a) paragraphs 1.3.2, 1.3.3, 1.3.5, 1.3.6, 1.3.8 to 1.3.11 and 1.9.2 in Chapter 1 (general);
- (b) Chapter 2 (design criteria and conditions);
- (c) Chapter 3 (ship design, construction and equipment);

(a) Guidance in relation to the matters requiring the approval of the Secretary of State in the Nuclear Code is set out in Marine Guidance Note (MGN) XXX. MGN XXX is available from the Maritime and Coastguard Agency (MCA) of Spring Place, 105 Commercial Road, Southampton SO15 1EG (telephone 020 3817 2000) and email infoline@mcga.gov.uk and on <https://www.gov.uk>.

- (d) Chapter 4 (nuclear steam supply system);
- (e) Chapter 5 (machinery and electrical installations); and
- (f) paragraphs 6.2, 6.4.1 to 6.4.5, 6.4.9, 6.4.10, 6.5.1 to 6.5.9, 6.6.2, 6.7.3, 6.8.1, 6.8.4, 6.9 and 6.10 in Chapter 6 (radiological safety),
of the Nuclear Code.

Suitability of reactor installation for service on board a ship

9. The reactor installation must be designed having regard to the special conditions of service on board a nuclear ship in both normal and exceptional circumstances of navigation.

Approval of reactor installation

10. Prior to the operation of a United Kingdom nuclear ship, the design, construction, and standards of inspection and assembly of the reactor installation must be approved by the Secretary of State, or any person authorised by the Secretary of State, taking into account the limitations on surveys of the reactor installation as a consequence of the presence of radiation.

Radiation safety

11. A nuclear ship must comply with each requirement relating to radiation safety in—
- (a) paragraphs 6.3 and 6.4 in Chapter 6 of the Nuclear Code (protection of persons and dosimetry and monitoring); and
 - (b) paragraphs 6.5.9 to 6.5.11, 6.6.1, 6.6.3, 6.6.4, 6.7.1, 6.7.2, 6.8.2 and 6.8.3 (radioactive waste management),
that applies to that ship.

PART 3

Operating requirements for nuclear ships

General operating requirements for nuclear ships

12. Subject to the particular operating requirements in this Part, a nuclear ship must be operated in accordance with the operating requirements in paragraph 7.1 in Chapter 7 of the Nuclear Code (operating requirements for a nuclear merchant ship).

Safety assessment – operational requirements

13.—(1) A nuclear ship must be operated in compliance with the safety assessment required by regulation 7 in Chapter VIII (safety assessment).

(2) The safety assessment must be—

- (a) kept up to date;
- (b) kept on board the nuclear ship;
- (c) readily available for examination at all times.

(3) The safety assessment must be made available to the Secretary of State at least 12 months before the arrival of a nuclear ship in United Kingdom waters.

Operating manual

14.—(1) An operating manual for a nuclear ship must—

- (a) be prepared for the information and guidance of the crew of a nuclear ship in accordance with regulation 8 in Chapter VIII (operating manual);

- (b) include the information referred to in—
 - (i) paragraph 7.2.3 in Chapter 7 of the Nuclear Code (content of the operating manual); and
 - (ii) where appropriate, paragraph 8.1.7 in Chapter 8 of the Nuclear Code (specification of surveys etc.);
 - (c) make provision for nuclear waste management as described in paragraphs 6.5 to 6.9 of the Nuclear Code (management of radioactive waste); and
 - (d) be submitted to the Secretary of State for approval.
- (2) Subject to payment of the prescribed fee, the Secretary of State may approve the operating manual referred to in paragraph (1) if satisfied that the requirements in that paragraph have been met.
- (3) A nuclear ship must—
- (a) not be operated until the operating manual has been approved by the Secretary of State; and
 - (b) be operated in compliance with its approved operating manual.
- (4) A nuclear ship and its nuclear propulsion plant must follow the procedures referred to in paragraph 7.3.1 of the Nuclear Code (normal operating procedures).
- (5) The operating manual must be—
- (a) kept up to date;
 - (b) kept on board the nuclear ship;
 - (c) readily available for examination at all times.

Additional operating documentation

15.—(1) In addition to the safety assessment required by regulations 7 and 13 (safety assessment), the operating manual required by regulation 14 (operating manual) and the Nuclear Ship Safety Certificate required by regulation 20 (certification of nuclear ships), a nuclear ship must hold operating documentation reflecting the specific features of the construction and operation of the nuclear ship and which include (but are not limited to) the following operating documentation—

- (a) operating licence, including details of any operational constraints;
 - (b) certificates attesting to the nuclear training of the master and ship's officers and other crew members holding specialised certification;
 - (c) radiation emergency plan;
 - (d) radiation muster list;
 - (e) records of surveys, functional tests and maintenance and repairs of the nuclear steam supply system; and
 - (f) registration logs and records for radiation control, radioactive waste management and fissile material inventory.
- (2) The documentation referred to in paragraph (1) must be—
- (a) kept up to date;
 - (b) kept on board the nuclear ship;
 - (c) readily available for examination at all times.
- (3) All the technical information identified in paragraph 7.2.4 in Chapter 7 of the Nuclear Code (content of logs) involving the operation of the nuclear propulsion plant must be recorded in accordance with the requirements of that paragraph.
- (4) All the information relating to emergency plans and muster lists for a nuclear ship identified in paragraph 7.2.5 in Chapter 7 of the Nuclear Code (content of emergency plans and muster lists) must be prepared in accordance with the requirements of that paragraph.

(5) A schedule of surveys, functional tests, maintenance and repairs of the nuclear steam supply system equipment must be maintained in accordance with paragraph 7.2.6 in Chapter 7 of the Nuclear Code (information relating to nuclear steam supply system equipment).

Emergency operation procedures

16. In the event of an emergency situation, the procedures contained in paragraph 7.4 in Chapter 7 of the Nuclear Code (emergency operation procedures) must be followed.

Maintenance and repair

17. Maintenance and repair of a nuclear ship must be carried out in accordance with paragraph 7.5 in Chapter 7 of the Nuclear Code (maintenance and repair).

Manning and training

18.—(1) The crew of a nuclear ship must comprise personnel qualified and trained in accordance with paragraph 7.6 in Chapter 7 of the Nuclear Code (manning, training, qualification, updating of knowledge, drills and musters).

(2) The Secretary of State must approve the appropriate number of crew required to operate the nuclear propulsion plant.

(3) Subject to payment of the prescribed fee for an inspection by the Secretary of State, and subject to any conditions prescribed by the Secretary of State, the Secretary of State may grant an approval to a person to provide the training required by paragraph (1) for a maximum period of 5 years.

(4) An approval given under paragraph (2) or (3) may, on the giving of reasonable notice, be altered or cancelled.

(5) Subject to payment of the prescribed fee for an inspection by the Secretary of State, the Secretary of State may extend an approval given to a person under paragraph (3) if satisfied that the conditions of that approval continue to be met.

(6) Each extension given under paragraph (5) may be for a maximum period of 5 years.

(7) An approval given under paragraph (2) or (3), an alteration or cancellation under paragraph (4) or an extension under paragraph (5) must—

- (a) be in writing;
- (b) specify the date on which it takes effect; and
- (c) specify the terms, if any, on which it is given.

(8) The requirement that an approval given under paragraph (2) or (3), an alteration or cancellation under paragraph (4) or an extension under paragraph (5), be in writing is satisfied where the text of the approval, alteration, cancellation or extension is—

- (a) transmitted by electronic means;
- (b) received in legible form; and
- (c) capable of being used for subsequent reference.

(9) Where an—

- (a) approval requested pursuant to paragraph (2) or (3); or
- (b) extension of an approval requested pursuant to paragraph (5),

is refused, the requirements in paragraphs (7) and (8) apply to that refusal as they apply to an approval or extension.

(10) A person approved under paragraph (3) must continue to comply with each condition applicable to the approval of that person in accordance with paragraph (3) and for the duration of the validity of the approval.

(11) The Secretary of State may require an approval given under paragraph (2) or (3), or an extension of an approval under paragraph (5), to be surrendered.

(12) No person must—

- (a) offer to provide, or provide, training or assessment of seafarers under this regulation without an approval given by the Secretary of State under paragraph (3), or an extension of an approval under paragraph (5);
- (b) with intent to deceive, use, lend, or allow to be used by another an approval given under paragraph (3), or an extension of an approval under paragraph (5);
- (c) advertise or otherwise display an approval given under paragraph (3), or an extension of an approval under paragraph (5), which has expired, or has not been granted to that person under paragraph (3) or (5);
- (d) fail to surrender an approval required to be surrendered under paragraph (10).

(13) For the purposes of paragraph (4), “altered” includes “suspend” and for the purposes of paragraphs (7) and (8) “alteration” is to be construed accordingly.

PART 4

Survey and certification of nuclear ships

Surveys of United Kingdom nuclear ships

19.—(1) A United Kingdom nuclear ship must comply with the following requirements in Chapter 8 of the Nuclear Code (surveys)—

- (a) paragraph 8.1.6 (survey period and methods etc.);
- (b) paragraph 8.1.7 (specification of surveys etc.);
- (c) paragraph 8.1.8 (safety and decontamination measures during surveys).

(2) A United Kingdom nuclear ship that is in its construction phase, must be subjected to the survey described in paragraph 8.2 in Chapter 8 of the Nuclear Code (survey during construction).

(3) A United Kingdom ship that is in its trial phase, must be subjected to the survey described in paragraph 8.3 in Chapter 8 of the Nuclear Code (survey during trials).

(4) A United Kingdom nuclear ship that intends to operate as such a ship must be subjected to—

- (a) a pre-commissioning test programme;
- (b) an initial survey, as specified in paragraph (5).

(5) The initial survey referred to in paragraph (4)(b) must—

- (a) include an inspection to check compliance with these Regulations;
- (b) address any special requirements contained in the safety assessment required by regulation 7 (safety assessment) and in the operating manual required by regulation 14 (operating manual); and
- (c) assess the nuclear ship against the requirements of the following provisions in Chapter I that apply to the particular ship being surveyed—
 - (i) regulation 7 (surveys of passenger ships);
 - (ii) regulation 8 (surveys of life-saving appliances and other equipment of cargo ships);
 - (iii) regulation 9 (surveys of radio installations of cargo ships);
 - (iv) regulation 10 (surveys of structure, machinery and equipment of cargo ships).

(6) A United Kingdom nuclear ship that is operating as such a ship must be subjected to a renewal survey no less frequently than once a year, and the renewal survey must include the matters referred to in the specification of the initial survey in paragraph (5).

(7) Notwithstanding the requirement for a renewal survey in paragraph (6), and subject to paragraph (8), a United Kingdom nuclear ship must be subjected to the additional surveys, and at the frequencies specified, in paragraph 8.4 in Chapter 8 of the Nuclear Code (survey during operational phase).

(8) A United Kingdom nuclear ship may be subjected to continuous surveys in accordance with paragraph 8.4.3.5 in Chapter 8 of the Nuclear Code—

- (a) at the request of the Secretary of State; or
- (b) with the approval of the Secretary of State,

in place of the periodical surveys required by paragraphs 8.4.3.1 to 8.4.3.4 in Chapter 8 of the Nuclear Code (surveys of the nuclear steam supply system and supporting hull structure).

(9) Notwithstanding the requirements of paragraphs (6) to (8), a United Kingdom nuclear ship which is operating as a such a ship must be subjected to the special surveys described in paragraph 8.5 in Chapter 8 of the Nuclear Code.

(10) The scope of a survey under paragraphs (2) to (4) and (6) to (9) is subject to the presence of radiation on the ship.

(11) The results of all surveys and tests must be—

- (a) recorded in a legible form and be capable of being used for subsequent reference;
- (b) contain the information referred to in paragraph 8.1.9 in Chapter 8 of the Nuclear Code;
- (c) kept in copy on board the nuclear ship;
- (d) sent, in the form of a copy, to the Secretary of State on request (for the purpose of assisting the Secretary of State to determine how and where the documents should be kept for the lifetime of the ship or its NPP);
- (e) readily available for examination at all times.

(12) The Secretary of State may determine how and where the information referred to in paragraph (11) is to be kept for the lifetime of the nuclear ship or its nuclear propulsion plant, as applicable.

(13) For the purposes of this regulation—

- (a) “construction phase” and “trial phase” have the meanings given in paragraph 8.1.2 in Chapter 8 of the Nuclear Code (phases of ship’s life cycle);
- (b) “pre-commissioning test programme” means the programme of tests carried out prior to the initial survey of the ship.

Certification of nuclear ships

20.—(1) Subject to payment of the prescribed fee for a survey and on being notified that the surveyor —

- (a) has carried out an initial survey or a renewal survey in respect of a United Kingdom nuclear ship in accordance with the requirements of regulation 19 (surveys of United Kingdom nuclear ships); and
- (b) is satisfied at the date of the survey that the ship complies with each requirement of these Regulations, paragraphs (b) or (c) of regulation 10 of Chapter VIII (certificates) as the case may be, and the Nuclear Code applicable to it,

a Certifying Authority must issue a Nuclear Ship Safety Certificate to that ship (which may be a Nuclear Passenger Ship Safety Certificate or a Nuclear Cargo Ship Safety Certificate).

(2) A certificate issued pursuant to paragraph (1) must contain the statement prescribed by paragraph (d) in regulation 10 of Chapter VIII (statement of convention compliance).

(3) A ship must hold on board—

- (a) in the case of a United Kingdom nuclear ship or a non-United Kingdom nuclear ship flying the flag of a Convention country, a valid Nuclear Ship Safety Certificate; or
- (b) in the case of a non-United Kingdom nuclear ship flying the flag of a State which is not a Convention country, a valid certificate issued in accordance with the requirements of that country for the purpose of operating as a nuclear ship.

(4) A ship must ensure that that the certificate mentioned in paragraph (3)(a) or (b), as the case may be, is readily available for examination at all times.

Duration and validity of a Nuclear Ship Safety Certificate

21.—(1) Subject to paragraph (2), a Nuclear Ship Safety Certificate must be issued or extended for a period of validity of not more than one year.

(2) Where a Nuclear Ship Safety Certificate has been issued for a period of less than one year and any survey required under regulation 19 (surveys of United Kingdom nuclear ships) has been satisfactorily completed, the Certifying Authority may extend the validity of the certificate so that the certificate is valid for a maximum period of one year.

Responsibilities of owner and master

22.—(1) The owner and master of a United Kingdom nuclear ship must ensure that—

- (a) subject to paragraph (3), the ship and its equipment is maintained so that the ship in all respects remains fit to operate without danger to the ship or persons on board;
- (b) after a survey of the ship required by regulation 19 (surveys of United Kingdom nuclear ships) has been completed, no change is made in the structural arrangements, machinery, equipment and other items covered by the survey, without the approval of the Certifying Authority; and
- (c) whenever an accident occurs to the ship or a defect is discovered, either of which affects the safety of the ship—
 - (i) it is reported at the earliest opportunity to the Certifying Authority, or a proper officer^(a); and
 - (ii) if the ship is in a port outside the United Kingdom it is also reported to the appropriate authorities of the country in which the port is situated.

(2) If a report is made under paragraph (1)(c)(i), the Certifying Authority or proper officer must determine whether a survey is necessary, and, if so, require one to be carried out.

(3) If the survey referred to in paragraph (2) shows that repairs are required, or if any important repairs or renewals are otherwise made to the ship or its equipment, a further survey must be carried out on the completion of those repairs or renewals.

Procedure to be adopted when the nuclear ship is deficient

23.—(1) Where a surveyor determines that the condition of a United Kingdom nuclear ship—

- (a) does not correspond substantially with the particulars on the Nuclear Ship Safety Certificate issued to the ship; or
- (b) is such that the ship is not fit to proceed to sea without danger to the ship or to persons on board,

the surveyor must advise the owner or master of the corrective action which, in the surveyor's opinion is required, and must notify the Certifying Authority.

(2) If such corrective action is not taken within such reasonable period as a surveyor may specify, the surveyor, or the Certifying Authority, must notify the Secretary of State in writing who may suspend the validity of the Nuclear Ship Safety Certificate issued in respect of that ship until the corrective action has been taken.

(3) Where the Secretary of State suspends the validity of the Nuclear Ship Safety Certificate issued in respect of a nuclear ship or reinstates the validity of the certificate, the Secretary of State must give notice in writing of such suspension to the owner, the surveyor and the Certifying Authority, who in turn must give notice to the master.

(4) The requirement that each notification under paragraphs (3) and (4) be in writing is satisfied where the text of the notification is—

- (a) transmitted by electronic means;

(a) "Proper officer" is defined in section 313(1) of the Merchant Shipping Act 1995 and means, in the United Kingdom, a consular officer.

- (b) received in legible form; and
- (c) capable of being used for subsequent reference.

Cancellation of nuclear ship safety certificate

24.—(1) The Secretary of State may cancel a Nuclear Ship Safety Certificate issued to a United Kingdom ship where there is reason to believe that—

- (a) the certificate was issued on the basis of false or erroneous information; or
- (b) since any survey required by these Regulations, the structure, equipment or machinery has sustained damage or is otherwise deficient.

(2) The Secretary of State may require a certificate referred to in paragraph (1) and issued to a United Kingdom ship which has expired, or has been cancelled, to be surrendered.

(3) No person must—

- (a) intentionally alter a Nuclear Ship Safety Certificate;
- (b) intentionally make a false Nuclear Ship Safety Certificate;
- (c) in connection with a survey referred to in regulation 19 (surveys of United Kingdom nuclear ships), knowingly or recklessly furnish false information;
- (d) with intent to deceive, use, lend, or allow to be used by another, a Nuclear Ship Safety Certificate; or
- (e) fail to surrender a Nuclear Ship Safety Certificate required to be surrendered under paragraph (2).

Arbitration

25.—(1) If an applicant is dissatisfied for any reason with the outcome of a survey carried out in respect of a United Kingdom nuclear ship, that person may serve a written notice on the responsible person within 21 days of receiving notice of that outcome—

- (a) stating that there is a dispute in relation to the survey; and
- (b) requesting that the dispute be referred to a single arbitrator.

(2) Subject to paragraphs (3), (4) and (6), an arbitrator referred to in paragraph (1) must be appointed by agreement between the parties.

(3) In default of agreement between the parties, the arbitrator is such person as may be appointed by the President or Vice President of the Chartered Institute of Arbitrators following a request by—

- (a) a party, after giving written notice to the other party; or
- (b) the parties jointly,

but this paragraph does not apply in Scotland.

(4) No person is to be an arbitrator under this regulation unless that person is—

- (a) a person who holds a certificate of competency as a Class 1 Deck Officer or Class 1 Marine Engineer Officer, or a certificate of competency which is equivalent to such a certificate;
- (b) a naval architect;
- (c) a qualified person;
- (d) a person with experience of shipping matters; or
- (e) a Member of the Chartered Institute of Arbitrators.

(5) An arbitrator appointed under this regulation has the powers of an inspector conferred by section 259 of the Merchant Shipping Act 1995.

(6) In the application of this regulation to Scotland—

- (a) any reference to an arbitrator is to be construed as a reference to an arbiter; and

- (b) the reference in paragraph (2) to an arbitrator appointed by agreement between the parties is to be construed as a reference to a single arbiter so appointed or, in default of agreement, appointed by a sheriff.

(7) The rules for arbitration set out in Merchant Shipping Notice M.1613 apply unless alternative arrangements are agreed between the applicant and the Secretary of State before the commencement of arbitration proceedings.

(8) In this regulation—

“applicant” means a person who makes an application for a survey required by these Regulations;

“the parties” means the applicant and the responsible person, and “party” is to be construed accordingly;

“qualified person” means—

- (a) a person who satisfies the judicial-appointment eligibility on a 7-year basis within the meaning of section 50 of the Tribunals, Courts and Enforcement Act 2007(a);
- (b) a person who is an advocate or solicitor in Scotland of at least 7 years’ standing; or
- (c) a person who is a member of the Bar of Northern Ireland or a solicitor of the Supreme Court of Northern Ireland of at least 7 years’ standing;

“responsible person” means the Certifying Authority responsible for the issue of the Nuclear Ship Safety Certificate in connection with which a survey required by these Regulations is carried out.

Prohibition on proceeding to sea or on any voyage without the appropriate certificate

26. A nuclear ship must not proceed to sea or on any voyage unless it has been surveyed and there is in force—

- (a) in the case of a United Kingdom nuclear ship or a non-United Kingdom nuclear ship flying the flag of a Convention country, a Nuclear Ship Safety Certificate;
- (b) in the case of a non-United Kingdom nuclear ship flying the flag of a State which is not a Convention country, a certificate issued in accordance with the requirements of that country for the purpose of operating as a nuclear ship.

PART 5

Miscellaneous requirements for nuclear ships

Quality assurance programme

27. A nuclear ship must be designed, constructed, tested, inspected, operated and decommissioned under a quality assurance programme in accordance with paragraph 1.3.7 in Chapter 1 of the Nuclear Code (quality assurance programme).

Decommissioning of nuclear ships

28. A nuclear ship must be decommissioned in accordance with the requirements in paragraph 1.8 in Chapter 1 of the Nuclear Code (decommissioning or loss).

Loss of nuclear ships

29. In the event of an accident likely to lead to an environmental hazard—

- (a) the master of a United Kingdom nuclear ship must immediately inform —

(a) 2007 c. 15.

- (i) the Secretary of State; and
 - (ii) the appropriate maritime authorities in the coastal State in whose waters the ship is in or whose waters the ship approaches in a damaged condition, as the case may be;
- (b) the master of a non-United Kingdom nuclear ship in United Kingdom waters must immediately inform the Secretary of State.

PART 6

Control and enforcement

Offences and penalties

30.—(1) Any contravention of—

- (a) regulation 7(1) (requirement for safety assessment);
- (b) regulation 8 (design and construction of nuclear ships);
- (c) regulation 9 (suitability of reactor installation for service on board a ship);
- (d) regulation 10 (approval of reactor installation);
- (e) regulation 11 (radiation safety);
- (f) regulation 12, in so far as this relates to a contravention of paragraph 7.1.1 or 7.1.4 in Chapter 8 of the Nuclear Code (general operating requirements for nuclear ships);
- (g) regulation 13(1), (2)(a) or (b), or (3) (safety assessment – operational requirements);
- (h) regulation 14(1), (3)(a) or (b), (4) or (5)(a) or (b) (operating manual);
- (i) regulation 15(1), (2)(a) or (b), (3), (4) or (5) (additional operating documentation);
- (j) regulation 16 (emergency operation procedures);
- (k) regulation 17 (maintenance and repair);
- (l) regulation 18(1) (manning and training);
- (m) regulation 19(1)(a), (b) or (c), (2), (3), (4), (6), (7), (8), (9) or (11)(a), (b), (c) or (d) (surveys of United Kingdom nuclear ships);
- (n) regulation 20(3) (requirement to hold on board a nuclear ship safety certificate);
- (o) regulation 22(1) (responsibilities of owner and master);
- (p) regulation 26 (prohibition on proceeding to sea or on a voyage without the appropriate certificate);
- (q) regulation 27 (quality assurance programme); or
- (r) regulation 28 (decommissioning of nuclear ships),

is an offence by the owner and master of a nuclear ship in respect of each case of non-compliance.

(2) Any contravention of regulation 12, in so far as this relates to a contravention of paragraph 7.1.3 in Chapter 7 of the Nuclear Code (general operating requirements for nuclear ships), is an offence by the Company.

(3) Any contravention of regulation 29(a) or (b) (loss of nuclear ships) is an offence by the master in respect of each case of non-compliance.

(4) An offence under paragraph (1), (2) or (3) is punishable—

- (a) on summary conviction—
 - (i) in England and Wales by a fine; or
 - (ii) in Scotland or Northern Ireland by a fine not exceeding the statutory maximum; or
- (b) on conviction on indictment by imprisonment for a term not exceeding two years, or a fine, or both.

(5) Any contravention of—

- (a) regulation 13(2)(c) (failure to have safety assessment readily available for examination);
- (b) regulation 14(5)(c) (failure to have operating manual readily available for examination);
- (c) regulation 15(2)(c) (failure to have additional operating documentation readily available for examination);
- (d) regulation 19(11)(e) (failure to have results of surveys and tests readily available for examination); or
- (e) regulation 20(4) (failure to have nuclear ship safety certificate readily available for examination),

is an offence by the owner and master of a nuclear ship.

(6) Any contravention of regulation 24(3) (falsification of certificate etc.) is an offence by the person in question.

(7) An offence under paragraph (5) or (6) is punishable—

- (a) on summary conviction—
 - (i) in England and Wales by a fine; or
 - (ii) in Scotland or Northern Ireland by a fine not exceeding the statutory maximum; or
- (b) on conviction on indictment by imprisonment for a term not exceeding six months, or a fine, or both.

(8) A person approved by the Secretary of State under regulation 18(3) (approval of person to provide training) who contravenes regulation 18(9) (compliance with conditions of approval) is guilty of an offence.

(9) A person who contravenes regulation 18(11)(a), (b), (c) or (d) (providing training without approval etc.) is guilty of an offence.

(10) An offence under paragraph (8) or (9) is punishable—

- (a) on summary conviction—
 - (i) in England and Wales by a fine; or
 - (ii) in Scotland or Northern Ireland by a fine not exceeding the statutory maximum; or
- (b) on conviction on indictment by a fine.

(11) For the purposes of paragraph (2), “Company” has the meaning given to it in regulation 1 of Chapter IX in the Annex to the Convention (International Safety Management (ISM) Code).

Special control

31.—(1) Nuclear ships are subject to the control of officers authorised by the Secretary of State when in a United Kingdom port for the purposes referred to in paragraph (2).

(2) The officers referred to in paragraph (1) may exercise such control in order to verify that—

- (a) there is on board a valid Nuclear Ship Safety Certificate, or an equivalent valid certificate where the ship flies the flag of a country which is not a Convention country;
- (b) the condition of the ship and its equipment correspond substantially with the particulars shown on the certificate;
- (c) where applicable, the provisions of regulation 22 (responsibilities of owner and master) are being complied with; and
- (d) there are no unreasonable radiation or other hazards at sea or in port, to the crew, passengers or public, or to the waterways or food or water resources.

Detention

32.—(1) For the purposes of this regulation, any reference to “the Act” is a reference to the Merchant Shipping Act 1995.

(2) Any nuclear ship which does not comply with the requirements of these Regulations, Chapter I, Chapter VIII or the Nuclear Code applicable to that ship, may be detained in the United Kingdom.

(3) Section 284 of the Act^(a) applies where a nuclear ship is liable to be detained under this regulation as if—

- (a) references to detention of a ship under the Act were references to detention of the ship in question under this regulation; and
- (b) subsection (7) were omitted.

(4) Where a nuclear ship is liable to be detained under this regulation, the person detaining the ship must serve on the master a detention notice which—

- (a) states the grounds of the detention; and
- (b) requires the terms of the notice to be complied with until the ship is released by any person mentioned in section 284(1) of the Act.

(5) Subject to paragraph (6), section 96 (references of detention notices to arbitration)^(b) and section 97 (compensation in connection with invalid detention of a ship) of the Act apply in relation to a detention notice issued pursuant to this regulation as they apply in relation to detention notices issued pursuant to section 95 (power to detain dangerously unsafe ship).

(6) For the purposes of paragraph (5)—

- (a) section 96 of the Act applies as if—
 - (i) subsection (3) were omitted;
 - (ii) the words “as a dangerously unsafe ship” in subsection (5) were omitted;
 - (iii) subsection (11) were omitted; and
- (b) sections 96 and 97 of the Act apply as if “the relevant inspector” means a person issuing the detention notice pursuant to this regulation.

(7) Subject to paragraph (8), where a nuclear ship other than a United Kingdom nuclear ship is detained, the Secretary of State must immediately inform the ship’s flag administration in writing.

(8) If it is not possible to inform the nuclear ship’s flag administration in accordance with paragraph (7), the Secretary of State must inform the Consul of the State of the flag administration, or in the absence of a Consul, the nearest diplomatic representative of the State of the flag administration.

(9) For the purposes of paragraphs (7) and (8), “flag administration” in relation to a nuclear ship means the administration of the State whose flag the ship is entitled to fly.

Review of the Regulations

33.—(1) The Secretary of State must from time to time—

- (a) carry out a review of the regulatory provision contained in these Regulations; and
- (b) publish a report setting out the conclusions of the review.

(2) The first report must be published before [DATE].

(3) Subsequent reports must be published at intervals not exceeding 5 years.

(4) Section 30(3) of the Small Business, Enterprise and Employment Act 2015^(c) requires that a review carried out under this regulation must, so far as is reasonable, have regard to how the obligations under the Convention are implemented in other countries which are subject to the obligations.

(a) Section 284 was amended by Schedule 1 to the Merchant Shipping and Maritime Security Act 1997 (c. 28) and S.I. 2015/664.
(b) Section 96(7) was amended by Part 1 of Schedule 10 to the Tribunals, Courts and Enforcement Act 2007 (c. 15) and by Schedule 11 to the Constitutional Reform Act 2005 (c. 4). Section 96(10) was repealed by Schedule 4 to the Arbitration Act 1996 (c. 23).
(c) 2015 c. 26. Section 30(3) was amended by section 19 of the Enterprise Act 2016 (c. 12) and Schedule 8 to the European Union (Withdrawal) Act 2018 (c. 16).

(5) Section 30(4) of the Small Business, Enterprise and Employment Act 2015 requires that a report published under this regulation must, in particular—

- (a) set out the objectives intended to be achieved by the regulatory provision referred to in paragraph 1(a);
- (b) assess the extent to which those objectives are achieved;
- (c) assess whether those objectives remain appropriate; and
- (d) if those objectives remain appropriate, assess the extent to which they could be achieved in another way which involves less onerous regulatory provision.

(6) In this regulation, “regulatory provision” has the same meaning as in sections 28 to 32 of the Small Business, Enterprise and Employment Act 2015 (see section 32 of that Act).

Signed by authority of the Secretary of State for Transport

Parliamentary Under Secretary of State
Department for Transport

Date

We consent to the making of these Regulations

Name

Name

Two of the Lords Commissioners of Her Majesty’s Treasury

Date

SCHEDULE

Regulation 1

Amendments

The Merchant Shipping (Survey and Certification) Regulations 2015

1. The Merchant Shipping (Survey and Certification) Regulations 2015 are amended as follows.
2. In regulation 5 (application and exemption)—
 - (a) at the end of paragraph (2)(e), omit “and”; and
 - (b) in paragraph (2)(f), after “ships” insert—
 - “, and
 - (g) nuclear ships, as defined in regulation 2(1) of the Merchant Shipping (Nuclear Ships) Regulations 2021.”.

The Merchant Shipping (Fees) Regulations 2018

3. The Merchant Shipping (Fees) Regulations 2018(a) are amended as follows.
4. In Schedule 1 (fees under the Merchant Shipping Act 1995), in the table in paragraph 5 (fees for inspections, etc) of Part 1 (surveys, inspections and applications for exemption), in Section I (construction and equipment), at the end—
 - (a) in the first column, insert “The Merchant Shipping (Nuclear Ships) Regulations 2021”;

(a) S.I. 2018/1104. There are amending instruments which are not relevant.

- (b) in the second column, insert “2021/XXX”;
- (c) in the third column, insert “None”.

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations implement the requirements of Chapter VIII in the Annex to the Convention for the Safety of Life at Sea, 1974 (“the Convention”), which contains the safety requirements for nuclear powered ships (“nuclear ships”). Chapter VIII is supplemented by the Code of Safety for Nuclear Merchant Ships (“the Nuclear Code”), which was adopted by the International Maritime Organization (IMO) in Resolution A.491(XII) on 19 November 1981. Although the Nuclear Code is not part of the Convention (and therefore not mandatory), member states were invited to give effect to it in national legislation. These Regulations give effect to the Nuclear Code.

Except with very limited exceptions, these Regulations apply to all United Kingdom commercially operated nuclear ships and non-United Kingdom commercially operated nuclear ships in United Kingdom waters, including ships from countries which are not parties to the Convention.

All future amendments to the provisions of Chapter VIII referred to in these Regulations will be automatically incorporated into the Regulations by way of ambulatory reference (regulation 4), as well as references that are made to certain provisions in Chapter I of the Convention (general provisions). Future amendments to the Nuclear Code may be specified by the Secretary of State in a Merchant Shipping Notice in order to bring the Nuclear Code requirements referred to in these Regulations up to date.

The Regulations provide for the approval of equivalents (regulation 5) and the approval of matters in the Nuclear Code requiring the consent of the Administration (regulation 6). The Convention prohibits an Administration from granting an exemption to a nuclear ship and consequently no provision for exemptions is made.

Part 2 makes provision for the special requirements that apply to nuclear ships, including the requirements for a safety assessment prior to the construction of a nuclear ship (regulation 7).

Part 3 makes provision for the particular operating requirements that apply to nuclear ships, including special requirements for the manning and training of crew on nuclear ships (regulation 18).

Part 4 makes provision for the survey and certification of United Kingdom nuclear ships (regulations 19 and 20) with provision for arbitration as a dispute mechanism in regulation 25. Regulation 22 places responsibility on the owner and master to operate a United Kingdom ship safely and regulations 23 and 24 provide for the suspension or cancellation of a nuclear ship safety certificate issued to a United Kingdom ship. Regulation 26 prohibits a nuclear ship from proceeding to sea or on any voyage without the appropriate certificate.

Part 5 contains miscellaneous requirements for nuclear ships. Regulation 27 makes provision for a quality assurance programme, regulation 28 provides for the decommissioning of nuclear ships and regulation 29 specifies the action that the master must take in the event of the loss of a nuclear ship.

The Regulations also provide for offences and penalties in the event of a contravention of the requirements of the Regulations (regulation 30). Regulation 31 makes provision for the special control of nuclear ships, enabling port State control officers to check, amongst other things, for unreasonable radiation or other hazards. In cases of non-compliance with the Regulations, a ship may also be detained (regulation 32).

Regulation 33 requires the Secretary of State to review the operation and effect of these Regulations and publish a report before [DATE] and at intervals not exceeding 5 years after that. Following a review, it will fall to the Secretary of State to consider whether the Regulations should remain as they are, or be amended or revoked. A further instrument would be needed to amend or revoke the Regulations.

Marine Guidance Note XXX also provides guidance on how the Secretary of State will exercise discretion where the Nuclear Code permits this. Marine Guidance Note XXX is available from the Maritime and Coastguard Agency (MCA) of Spring Place, 105 Commercial Road, Southampton SO15 1EG (telephone 020 3817 2000 and email infoline@mca.gov.uk) <https://www.gov.uk/topic/ships-cargoes/m-notices>. Merchant Shipping Notice M.1613 is also available at the same link and from the MCA.

The Convention and its Protocol of 1988 may be obtained in copy from the International Maritime Organization (IMO), 4 Albert Embankment, London SE1 7SR and both are available on the Foreign and Commonwealth Office (FCO) treaties database (<https://treaties.fco.gov.uk/responsive/app/consolidatedSearch/>). The text of the IMO Resolutions amending the Convention and Protocol may be obtained from the IMO or found in Marine Information Note XXX(M), or on the FCO treaties database (<https://treaties.fco.gov.uk/responsive/app/consolidatedSearch/>).

Future amendments to the Convention and to the Protocol may be obtained in copy from the IMO and, after coming into force in the United Kingdom, found on the Foreign and Commonwealth Office (FCO) treaties database (<https://treaties.fco.gov.uk/responsive/app/consolidatedSearch/>). Until such publication is made on the FCO treaties database, an amendment will be available from the MCA and on <https://www.gov.uk>. An amendment will be publicised in advance of its in-force date by means of a Parliamentary Statement to both Houses of Parliament and by way of a Marine Guidance Note, which will be available in copy from the MCA and on <https://www.gov.uk>.

A full impact assessment has not been produced for this instrument as no, or no significant, impact on the private or voluntary sector is foreseen.

An Explanatory Memorandum is published alongside the instrument on www.legislation.gov.uk.