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Regulations of 28 July 2021 (Federal Law Gazette I p. 3236)

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Regulations on the Competencies and Proficiencies of Seafarers in the Maritime Shipping Industry*

(Seafarers' Competencies and Proficiencies Regulations – See-BV)

Seafarers' Competencies and Proficiencies Regulations of 8 May 2014 (Federal Law
Gazette I, p. 460), as most recently amended by Article 1 of the Regulations of 28 July 2021
(Federal Law Gazette I p. 3236)

Footnote *: These Regulations also transpose

1. Directive 2012/35/EU of the European Parliament and of the Council of 21
November 2012 amending Directive 2008/106/EC on the minimum level of training of
seafarers (OJ L 343, 14 December 2012, p. 78);
2. Directive 2008/106/EC of the European Parliament and of the Council of 19
November 2008 on the minimum level of training of seafarers (recast) (OJ L 323, 3
December 2008, p. 33);
3. Directive 2005/45/EC of the European Parliament and of the Council of 7
September 2005 on the mutual recognition of seafarers' certificates issued by the
Member States and amending Directive 2001/25/EC (OJ L 255, 30 September 2005, p.
160);
4. Directive 2005/36/EC of the European Parliament and of the Council of 7
September 2005 on the recognition of professional qualifications (OJ L 255, 30
September 2005, p. 22), to the extent that professions in the seafaring sector are
affected.

The Federal Ministry of Transport and Digital Infrastructure hereby makes the following
Regulations, in both cases in conjunction with Section 1(2) of the Amendment of
Responsibilities Act of 16 August 2002 (Federal Law Gazette I, p. 3165) and the
Organizational Decree of 17 December 2013 (Federal Law Gazette I, p. 4310),

- on the basis of paras. 3a, 3c and 3d of the first sentence of Section 9(1) of the
Maritime Shipping (Federal Competences) Act in the version promulgated on 26 July
2002 (Federal Law Gazette I, p. 2876), Section 9(1) and (2) as amended by Article
2(1)(6) of the Act of 20 April 2013 (Federal Law Gazette I, p. 868), after consulting the
Federal Ministry of Labour and Social Affairs and the Federal Ministry of Food and
Agriculture, and
- on the basis of Section 12(2) of the Maritime Shipping (Federal Competences)
Act in the version promulgated on 26 July 2002 (Federal Law Gazette I, p. 2876), as

amended by Article 2(163) of the Act of 7 August 2013 (Federal Law Gazette I, p. 3154), in conjunction with Section 23(2) of the Federal Charges Act of 7 August 2013 (Federal Law Gazette I, p. 3154), after consulting the Federal Ministry of Finance:

Part 1
General Provisions

Chapter 1
Scope, definitions, responsibilities

Section 1
Scope

These Regulations govern

1. the competencies, proficiencies and other requirements for the issuing and withdrawal of certificates of competency, certificates of proficiency and other certificates for masters, officers and other seafarers serving on board commercial vessels,
2. the approval of training courses and
3. the procedures for the recognition of vocational aptitude tests

unless otherwise specifically governed by other provisions.

Section 2
Definitions

(1) "STCW Convention" means the International Convention of 7 July 1978 on Standards of Training, Certification and Watchkeeping for Seafarers (Federal Law Gazette 1982 II, p. 297), as amended.

(2) "STCW Code" means the amendments, adopted by Resolution 2 of the Final Act of the Conference of Member States of the International Maritime Organization on 7 July 1995, to the Annex to the STCW Convention (Federal Law Gazette 1997 II, p. 1118), as amended.

(3) "IGF Code" means the International Code of Safety for Ships Using Gases or other Low-Flashpoint Fuels (Federal Ministry of Transport Gazette 2016, p. 655, special edition C 8151) in accordance with the definition in regulation II-1.2.29¹ of the International Convention for the Safety of Life at Sea, 1974, with the Annex and Appendix and the Protocols of 1978 and 1988 relating thereto (SOLAS) (Federal Law Gazette 1979 II, p. 141; 1980 II, p. 525; 1983 II, p. 784; 1994 II, p. 2458 as well as the Appendix to the Federal Law Gazette II No 44 of 27 September 1994, p. 43), as amended.

(4) "Polar Code" means the International Code for Ships Operating in Polar Waters (Polar Code) in accordance with the definition in SOLAS regulation XIV/1.1; "polar waters" means Arctic waters and/or the Antarctic area in accordance with the definitions in SOLAS regulation XIV/1.2 to XIV/1.4 (Federal Ministry of Transport Gazette 2015, p. 843, special edition C 8146), as amended.

(5) "ISPS Code" means the International Code for the Security of Ships and of Port Facilities (Federal Law Gazette 2003 II, p. 2018) adopted on 12 December 2020 by resolution 2 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea (SOLAS).

(6) For the purposes of these Regulations:

1. "Federal Agency" means the Federal Maritime and Hydrographic Agency;
2. "Berufsgenossenschaft" (Occupational Accident Insurance Fund) means the German Social Accident Insurance Institution for Commercial Transport, Postal Logistics and Telecommunications;
3. "Certificate of competency" means the official certificate issued by a competent authority of a Party to the STCW Convention and, in the case of nautical service on

fishing vessels and technical service on vessels with a propulsion power of less than 750 kilowatts, by another competent entity for masters, officers and GMDSS radio operators on which the powers, functions and levels of responsibility, including restrictions, of the holder of the certificate have been entered and which entitles the holder to serve in the capacity and perform the functions involved at the level of responsibility specified therein;

4. "Certificate of proficiency" means the certificate issued by a competent authority of a Party to the STCW Convention for seafarers on which the powers, functions and levels of responsibility, including restrictions, of the holder of the certificate of proficiency have been entered;

5. "Proof of qualification" means documentary evidence, in accordance with Section 51, other than a certificate of competency or certificate of proficiency, used to establish that the requirements of the STCW Convention relevant to any given proof of qualification have been met;

6. "Endorsement of recognition" means an endorsement issued by the Federal Agency the purpose of which is to recognize a certificate of competency issued to a master, officer or GMDSS radio operator and obtained in another country or a certificate of proficiency for service on tankers on ships flying the flag of the Federal Republic of Germany;

7. "Certificate of equivalent competency" means a certificate issued by the Federal Agency the purpose of which is to recognize a certificate obtained in another country concerning a competence not subject to the STCW Convention for service on ships flying the flag of the Federal Republic of Germany;

8. "Certificates" means certificates of competency, certificates of proficiency, evidence of qualification, endorsements of recognition, certificates of equivalent competency, dispensations and other documents issued in accordance with these Regulations;

9. "Management level" means the level of responsibility associated with crew members serving as master, chief mate, chief engineer officer or second engineer officer on board a seagoing ship and ensuring that all functions within the designated area of responsibility are properly performed;

10. "Operational level" means the level of responsibility associated with crew members serving as officer in charge of a navigational or engineering watch, electro-technical officer, designated duty engineer for periodically unmanned machinery spaces, GMDSS radio operator or ship's doctor and maintaining direct control over the performance of all functions within the designated area of responsibility in accordance with proper procedures and under the direction of an individual serving in the management level for that area of responsibility;

11. "Support level" means the level of responsibility associated with crew members performing assigned tasks, duties or responsibilities under the direction of the master or an officer;

12. "Training record book" means a record of activities published or approved by the Federal Agency to certify practical training and seagoing service;

13. "Month" means a calendar month or, if several periods each lasting less than one calendar month are involved, a period made up of 30 days;

14. "Domestic voyage" means a voyage from German ports to German ports;

15. "Near-coastal voyage" means a voyage in the course of which ports in Germany, in the European part of the Kingdom of the Netherlands, in the Kingdom of Denmark with the exception of the Faeroes and Greenland, and ports in the Republic of Poland are called at;
16. "Fishing vessel" means a commercial ship used for catching fish or other living marine resources;
17. "Coastal fishing" means fishing done on fishing voyages over a distance not exceeding 35 nautical miles from the coast of the Federal Republic of Germany or over a distance not exceeding 30 nautical miles from the coast of the neighbouring coastal countries;
18. "High-sea fishing" means fishing done in the Baltic Sea, the North Sea and in the area bounded in the north by the 63rd parallel north from the Norwegian coast to the 10th meridian west, thence southwards to 60 nautical miles north of the Irish coast, continuing at a distance of 60 nautical miles along the west coast of Ireland to 50°30' north and 10° west and thence in a straight line to the Creach Lighthouse (Ushant) on the island of Ouessant;
19. "Deep-sea fishing" means fishing done outside the boundaries of high-sea fishing;
20. "Length" means 96 percent of the total length on a waterline at 85 percent of the least moulded depth measured from the top of the keel or as the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that is greater;
21. "Vocational aptitude test" means the determination whether a candidate for a certificate has the required competencies, knowledge, understanding and proficiency and is able to confidently apply them on board commercial vessels;
22. "Professional accreditation" means the procedure for and about the determination of compliance with the professional requirements at the universities established under federal state law in accordance with the STCW Convention;
23. "Valid", in the case of certificates issued for an unlimited period, means the continued existence of the competence or proficiency; and
24. "Propulsion power" means the total maximum continuous rated output power of all of a ship's main propulsion machinery which appears on the ship's certificate of registry or other official document.

In the case of para. 20 of the first sentence, in ships designed with a rake of keel, the waterline on which this length is measured shall be parallel to the designed waterline. The vocational aptitude test in accordance with para. 21 of the first sentence shall take the form of examinations and a practical final examination. The practical final examination shall take place at the end of a professionally accredited, shipping-related course of study or a shipping-related school education at a training institution established under federal state law. (7) For the purposes of these Regulations, the abbreviations listed in Annex 1 are used to designate the certificates of competency and certificates of proficiency for seafarers engaged in navigation, maritime mobile service, engineering and electro-technical service, ship operations, ship safety and security, service on special types of vessel excluding service on passenger ships.

Section 3

Responsibilities

- (1) Within the scope of these Regulations, the Federal Agency shall be responsible:

1. for issuing, replacing, exchanging, withdrawing and seizing certificates and declaring that certificates have been suspended;
2. for revalidating certificates of competency and certificates of proficiency by recognizing the continued existence of the competence or proficiency;
3. for approving training courses and activities, conducting examinations, professional accreditation as well as for specifying the requirements for the professional aptitude test;
4. for issuing training record books, if this is required by these Regulations;
5. subject to para. 1 of the first sentence of subsection 5, for establishing whether training courses in the fields of metalwork and electrical engineering satisfy the requirements;
6. for issuing certificates of professional activity in maritime shipping;
7. for supervising the practical training and seagoing service in accordance with Section 31(2)(2), Section 40(2)(2) and Section 42(4)(2); and
8. for supervising the training in accordance with Section 49(4)(1)(b) and (6)(1)(b) and Section 50(4)(1)(b).

The Federal Agency may involve the Berufsbildungsstelle Seeschifffahrt e.V. in the supervision of the practical training and seagoing service in accordance with para. 7. (2) Notwithstanding subsection 1(1), the certification of officers in charge of the navigational watch or officers in charge of the engineering watch shall, in the case of candidates who have graduated from the training institutions established by the State of Mecklenburg-Western Pomerania, be the responsibility of the administrative authority designated by that state on the basis of the administrative arrangement between the Federal Republic of Germany and the State of Mecklenburg-Western Pomerania of 5 August 2005 (Federal Gazette, p. 12 875).

(3) Notwithstanding subsection 1(1), evidence of qualification for service on passenger ships and evidence of qualification for the maintenance of competencies pursuant to Sections 44 to 46, shall not require a certificate issued by the Federal Agency if certificates are issued in accordance with Section 51(5) or 54(2).

(4) Notwithstanding subsection 1(3), the Berufsgenossenschaft shall be responsible for approving training courses in the fields of basic safety training, the operation of survival craft and rescue boats plus fast rescue boats and the control of fire-fighting operations. The first sentence also applies to training courses to ensure continued professional competence pursuant to Section 54(1).

(5) Within the scope of these Regulations, the Berufsbildungsstelle Seeschifffahrt e.V. shall be responsible for:

1. determining whether regulated professions in the fields of metalwork and electrical engineering satisfy the requirements;
2. publishing a list with the regulated professions determined in accordance with para. 1; and
3. supervising the practical training and seagoing service of officer assistants.

It shall be subject to technical supervision by the Federal Ministry of Transport and Digital Infrastructure. The determination and publication in accordance with para. 1 shall require agreement with the Federal Agency.

Section 4 **Standardized formats for certificates**

The standardized formats for the certificates of competency, certificates of proficiency, endorsements of recognition and evidence of professional activity in maritime shipping shall be published by the Federal Ministry of Transport and Digital Infrastructure in the Federal Ministry of Transport Gazette.

Chapter 2 Obtaining and issuing certificates

Section 5 General requirements for obtaining certificates

(1) Persons wishing to obtain a certificate of competency, certificate of proficiency or evidence of qualification shall prove:

1. their identity and that they have reached the minimum age prescribed in Section 6;
2. their personal aptitude pursuant to Section 7;
3. their professional aptitude,
 - a) within the framework of training courses conducted under federal state law, by means of a vocational aptitude test, or
 - b) within the framework of approved training courses for obtaining competencies in German maritime shipping law in accordance with Annex 2, in maritime safety and security, for service on special types of vessel and other advanced vocational training courses;
4. that they have undergone the practical training and seagoing service required by these Regulations; and
5. that they have completed an approved training course in accordance with the requirements set out in section A-VI/1 of the STCW Code in conjunction with Section 54(1) and (2) and that they hold a corresponding valid certificate of proficiency.

Para. 5 of the first sentence does not apply to persons applying for:

1. a certificate of competency for GMDSS radio operators;
2. a certificate of proficiency in basic safety training or in ship security;
3. a certificate of proficiency for service on ships operating in polar waters; and
4. evidence of qualification in accordance with Section 51(1).

(2) Persons wishing to obtain a certificate of competency for navigation must, in addition to the requirements set out in subsection 1, prove:

1. in the case of domestic voyages, near-coastal voyages or coastal fishing, that they hold a Restricted Operator's Certificate (ROC) for GMDSS radio operators; and
2. in all other cases that they hold a General Operator's Certificate (GOC) for GMDSS radio operators.

(3) Para. 1 and 2 of the first sentence of subsection 1 shall be applied mutatis mutandis to the issuing of endorsements of recognition and certificates of equivalent competency. Para. 1 of the first sentence of subsection 1 shall be applied mutatis mutandis for the issuing of seafarers' cards.

Section 6 Minimum age

(1) Notwithstanding the provisions of the Maritime Labour Act, the minimum age of candidates for a certificate of competency or a certificate of proficiency shall be 18 years.

Persons applying for a master's certificate of competency must be at least 20 years old.

(2) Notwithstanding subsection 1, persons must be at least 16 years old when applying for a certificate of proficiency for:

1. navigational watch proficiency;
2. engine-room watch proficiency;
3. proficiency regarding the basic requirements of safety on board;
4. proficiency in ship security;
5. proficiency required for service on an oil tanker, chemical tanker or liquefied gas tanker;
6. service on ships subject to the IGF Code;
7. service on ships operating in polar waters; and
8. for evidence of qualification for service on passenger ships.

The first sentence shall apply mutatis mutandis to obtaining a seafarer's card.

(3) In the cases described in subsection 2, persons may obtain the proficiencies before their 16th birthday, and necessary examinations may also be taken before this time. However, certificates of proficiency may not be issued until the time stipulated in subsection 2.

Section 7 **Personal aptitude**

(1) A person shall be deemed to possess the personal aptitude for obtaining or revalidating a certificate of competency or certificate of proficiency if they:

1. prove, by means of a certificate as described in Section 12, their medical fitness for the activity they are to perform at sea and for the relevant branch of service; and
2. are not unreliable.

(2) Persons shall be deemed to be unreliable if they have seriously or repeatedly violated provisions governing criminal traffic offences in connection with the operation of a vessel and have been finally convicted for this.

(3) Persons shall normally be deemed to be unreliable if, as the holder of a certificate of competency or an endorsement of recognition, they have violated the current provisions in the maritime shipping sector governing the consumption of alcohol or have served on a ship under the influence of intoxicating substances.

(4) In particular, persons may be regarded as unreliable if:

1. they have seriously violated provisions governing criminal traffic offences outside the maritime shipping sector a vessel and have been finally convicted for this;
2. they have repeatedly committed infringements of shipping police rules that carry a fine;
3. they have had a certificate of competency or endorsement of recognition for maritime shipping withdrawn by a final decision of the competent authority;
4. they have been repeatedly banned from operating vehicles in road traffic, inland navigation or in maritime shipping; or
5. they have been finally convicted of fraud or falsification of documents in connection with obtaining a certificate in accordance with these Regulations.

(5) If facts are known that cast reasonable doubt on the reliability required of the candidate, the Federal Agency may require a candidate to:

1. apply for a certificate of good conduct under Section 30 of the Federal Central Criminal Register Act for submission to the Federal Agency; or
2. submit
 - a) a report by a traffic psychologist or
 - b) a medico-psychological report.

(6) If facts are known that cast reasonable doubt on the medical fitness for service at sea of the holder of a certificate of medical fitness for service at sea, the Federal Agency should inform the Maritime Medical Service of the Berufsgenossenschaft.

Section 8 Time limits

(1) The following shall be issued for a limited period of time and revalidated:

1. a certificate of competency for navigational service on commercial vessels not used for the purposes of fishing, for maritime mobile service on a ship and for the engine department, with the exception of the certificate of competency for engine operators;
2. a certificate of proficiency for service on tankers;
3. evidence of qualification for service on passenger ships;
4. an endorsement recognizing a certificate of competency issued by another country;
5. a certificate of proficiency for service on ships subject to the IGF Code; and
6. a certificate of proficiency for service on ships operating in polar waters.

(2) The period of time for which they are issued shall not exceed five years.

(3) The period shall commence on the date of:

1. the successful completion of training; or
2. the completion of a training course that is a requirement for the desired certificate.

The period shall end, in the case of certificates of competency for navigational service being issued or revalidated, on the date on which the period of time the licence to perform maritime mobile service on ships is issued for ends. The event that occurs first shall be taken as a basis. If the event is less than six months old, the date on which the certificate was issued shall be applicable for the start of the period.

Section 9 Restrictions

(1) The Federal Agency shall issue and revalidate a certificate of competency with the restrictions resulting from Section 13(1) of the Maritime Labour Act, these Regulations and the regulations in the Annex to the STCW Convention, if appropriate, regarding a ship's size, propulsion power, trading area, nautical or technical equipment.

(2) Unless candidates for a certificate of competency for navigational service can demonstrate that they hold a certificate of knowledge of the English language that corresponds at least to the basic knowledge in accordance with level A2 of the Common European Framework of Reference for Languages recommended for use by the Council of Europe in Recommendation (2008) 7 of the Committee of Ministers of 2 July 2008 and by the European Community in the Council Resolution of 14 February 2002 on the promotion of

linguistic diversity and language learning in the framework of the implementation of the objectives of the European Year of Languages 2001 (OJ 2001 C 50, p. 1 ff.), the certificate of competency shall be valid exclusively for domestic voyages.

Chapter 3

Vocational aptitude tests, professional accreditation and quality assurance

Subchapter 1

Vocational aptitude tests for masters and officers

Section 10

Vocational aptitude tests and professional accreditation

(1) Candidates for a certificate of competency

1. as a deck officer,
2. as an engineer officer,
3. as an electro-technical officer, or
4. as a master, if these Regulations make provision for this,

must demonstrate their professional aptitude by means of a vocational aptitude test.

(2) Vocational aptitude tests can be taken at training institutions established under federal state law.

(3) Persons wishing to be admitted to the vocational aptitude tests must demonstrate that they:

1. have completed the required practical training and seagoing service;
2. have been trained at a training institution established under federal state law
 - a) in accordance with the syllabuses provided for in these Regulations and under federal state law,
 - b) for the duration provided for in these Regulations and under federal state law;
3. have passed examinations:
 - a) in all training fields covered by the STCW Convention and the Annexes to the STCW Convention;
 - b) in German maritime shipping law pursuant to Annex 2(5).

(4) The requirements to be met by the vocational aptitude test in accordance with Sections 11 and 12 shall be deemed fulfilled:

1. in the case of a university, if the course of study concerned obtained professional accreditation from the Federal Agency;
2. in the case of a technical college, if the framework training and examination regulations and the framework curriculum are drawn up and implemented in consultation with the Federal Ministry of Transport and Digital Infrastructure.

(5) The professional accreditation may be granted for a maximum of five years. Collateral clauses may be attached to it, and this may also be done retroactively. The professional accreditation may be renewed if this is requested at least six months before the expiry of the period of validity and the requirements for the professional accreditation are still met.

Section 11

Quality standards for training and examinations

(1) The relevant requirements for ensuring the safety of life at sea and protection of the marine environment with regard to training and competencies under the STCW Convention shall be deemed to have been met for certification in accordance with the STCW Convention within the meaning of Section 2(2) of the Maritime Shipping (Federal Competences) Act (SeeAufgG) if the Federal Agency does not raise any objections and compliance with the following provisions of the Annex to the STCW Convention is ensured:

1. compliance with Regulation I/6 with regard to the underlying training programmes;
2. compliance with Regulation I/12 with regard to the use of simulators;
3. compliance with the requirements set out in the appropriate chapters in conjunction with Regulation I/6 with regard to school and higher education or practical vocational education, training and competence on board;
4. compliance with Regulation I/6 with regard to the competence, supervision and monitoring of the trainers and those responsible for training and assessment of competence;
5. compliance with Regulation I/6 with regard to the proficiency and competence of candidates and with regard to the assessment of competence.

(2) The relevant requirements for ensuring the safety of life at sea and protection of the marine environment with regard to training and competencies for navigational service on fishing vessels shall be deemed to have been met for certification within the meaning of Section 2(2) of the Maritime Shipping (Federal Competences) Act (SeeAufgG) if there are no specific well-founded objections and compliance with the appropriate provisions of these Regulations and the application mutatis mutandis of subsection 1 is ensured.

(3) For the purpose of assessing the requirements of paras. 1, 2, 4 and 5 of subsection 1 and of subsection 2 with regard to issuing or amending study and examination regulations, the Federal Agency shall be given the opportunity to provide its comments. It shall be authorized to make comments in the interest of complete implementation of the relevant requirements set out in the STCW Convention. The requirements of paras. 1, 2, 4 and 5 of subsection 1 and of subsection 2 shall be deemed fulfilled if they are coordinated with the Federal Agency.

Section 12 **Quality assurance**

(1) In addition to the requirements set out in Section 11, the training institutions established under federal state law shall ensure that with regard to all activities in connection with shipping-related training in accordance with the requirements of these Regulations:

1. quality standards systems in accordance with Regulation I/8 paragraph 1 of the Annex to the STCW Convention have been established on a permanent basis;
2. there is regular evaluation in accordance with Regulation I/8 paragraph 2 of the Annex to the STCW Convention by selected qualified persons who are not themselves involved in the activities concerned; and
3. the necessary data, documents and information are provided to the Federal Ministry of Transport and Digital Infrastructure for the reporting obligations specified in Regulation I/8 paragraph 3 of the Annex to the STCW Convention.

(2) The major factor determining whether a person is qualified within the meaning of para. 2 of the first sentence of subsection 1 shall be knowledge of international maritime shipping and the quality requirements resulting from conventions and codes of the International Maritime Organization, in particular the STCW Convention and its transposition into domestic law.

(3) The shipping-related training institutions established under federal state law shall give the Federal Agency an opportunity to attend the vocational aptitude tests as an observer. Representatives of the Federal Agency shall not be members of the board of examiners but should be given the right to suggest examination questions and inspect written examinations. Suggestions made by the Federal Agency shall be taken into account when implementing subsection 1.

**Section 13
(repealed)**

Section 14

Suspension of recognition as vocational aptitude tests

If the Federal Ministry of Transport and Digital Infrastructure or the Federal Agency receives well-founded complaints, or if the Federal Republic of Germany is informed that another state or the International Maritime Organization believes that the requirements set out in Sections 10 to 12 have not been met, recognition of a final examination as a vocational aptitude test can be revoked. Sections 48 and 49 of the Administrative Procedures Act (VwVfG) shall apply mutatis mutandis.

**Subchapter 2
Approval of training courses**

Section 15

Requirements to be met by training courses

Training courses within the meaning of para. 3(b) of the first sentence of Section 5(1) shall require approval. The training courses, including any prescribed examinations, must be such that they provide the knowledge, understanding and proficiency for any given competency and demonstrate that they have been obtained.

**Section 16
Approval of training courses**

(1) A request for the approval of a training course shall be submitted in writing or electronically to the competent authority. The request must contain the following information:

1. a course name;
2. an outline of the training, containing at least the following:
 - a) duration of the training;
 - b) entry requirements for trainees regarding educational background, level of training, personal aptitude and the checking thereof;
 - c) specimen of a certificate of attendance or of evidence of qualification;
 - d) minimum and maximum number of trainees permitted;
 - e) description of the classrooms and how they are equipped, including the equipment for practical exercises;
3. the course material to be used;
4. a training plan, containing at least the following:
 - a) overview of contents, stating the time devoted to the individual subjects, broken down into theory instruction and practical exercises (timetable);
 - b) detailed curriculum with in-depth description of the competencies to be acquired;

- c) description of the instructional methodology and techniques to be used;
 - d) description of the procedure for assessing the competencies of the trainees, including the procedures for admission to examinations and the options and arrangements for resits;
5. a list of the instructors and examiners with a description of their training, qualifications, advanced training, instructor certification and relevant activities as an instructor;
6. a description of the procedure for compliance with the standards for training and examinations set out in Section 11.

The requirements to be met by the quality assurance in accordance with Section 12(1) and (2) shall apply mutatis mutandis.

(2) If the documents submitted are complete and prove that the training course meets the requirements, provisional approval can be granted for a maximum of six months. Within the period of validity of the provisional approval, the competent authority shall check the training course at the premises of the training institution. The first date for conducting the provisionally approved training course shall be agreed in consultation with the Federal Agency. If it meets the requirements, approval shall be granted for a maximum of three years. Collateral clauses may be attached to it, and this may also be done retroactively.

(3) The competent authority shall be notified without delay of any changes in circumstances relevant to the approval.

(4) The approval may be renewed if this is requested at least six months before the expiry of the period of validity and the requirements for approval are still met.

(5) The approval shall be withdrawn if the provider has obtained the approval:

- 1. by means of fraudulent misrepresentation, threat or bribery; or
- 2. by providing information, either intentionally or as a result of gross negligence, that was untrue or incomplete in major respects.

The approval shall be withdrawn if the provider no longer has the necessary professional skills, independence or reliability. This is without prejudice to Sections 48 and 49 of the Administrative Procedures Act (VwVfG).

(6) For the approval of modules in the context of professional accreditation in accordance with Section 10 that are to lead to the issue of certificates of proficiency, evidence of qualification or certificates of attendance, subsections 1, 3, 4 and 5 shall apply mutatis mutandis. Within the period of validity of the approval, the Federal Agency may check the module at the premises of the training institution established under federal state law. The duration for which the module is approved depends on the duration of the professional accreditation it is based on.

Section 17 **Record of attendees**

(1) The provider shall keep a record of the attendees who have successfully completed a training course within the last six years.

(2) The following details shall be entered in the record:

- 1. the surname, first name and the date of birth of attendees;
- 2. name and the Federal Maritime and Hydrographic Agency's (BSH) approval number of the training course, including the period of attendance of the individual attendee;
- 3. the numbers of the certificates of attendance or the evidence of qualification of the individual attendees and the date of issue of the certificate.

(3) If the provider can no longer fulfil its obligations in accordance with subsection 1, the record of attendees shall immediately be transmitted to the approval body in digital form. After the transmission in accordance with the first sentence, the provider shall immediately delete the record of attendees in accordance with subsection 1, using automated deletion if it was stored in electronic form.

Subchapter 3 Periods of seagoing service and activities

Section 18 Periods of seagoing service and ships

Periods of seagoing service must be such that seafarers can obtain and continuously apply the knowledge, understanding and proficiency for any given competence. The seagoing service must be on ships covered by the scope of the STCW Convention in its Article III or on fishing vessels.

Section 19 Approved activities

Activities that are to be approved as appropriate to continued competence within the meaning of Section 53 must require knowledge, understanding and proficiency on which the relevant certificate of competency is based. The Federal Agency shall publish a list of approved activities.

Chapter 4 Foreign certificates and evidence of qualification

Section 20 Certificates of competency and certificates of proficiency issued by other Member States of the European Union or other states parties to the Agreement on the European Economic Area

(1) A certificate of competency within the meaning of Article 5 of Directive 2008/106/EC of the European Parliament and of the Council of 19 November 2008 on the minimum level of training of seafarers (recast) (OJ L 323, 3 December 2008, p. 33), as most recently amended by Article 1 of Directive 2019/1159/EU (OJ L 188, 12 July 2019, p. 94), as amended, issued by another Member State of the European Union or a state party to the Agreement on the European Economic Area shall, upon request, be recognized by the Federal Agency. The first sentence shall also apply to certificates of proficiency as master or officer on tankers specified in sections A-V/1-1 and A-V/1-2 of the STCW Code.

(2) Recognition shall be granted immediately after the application is filed by issuing an endorsement in accordance with the requirements set out in section A-I/2, paragraph 3, of the STCW Code. Recognition shall be confined to the functions, capacities and levels of responsibility indicated on the certificate of competency submitted for recognition. Limitations included on the certificate of competency submitted shall be retained in accordance with the STCW Convention.

(3) If the certificate of competency includes functions at the management level, candidates for an endorsement must demonstrate that they have appropriate knowledge of German maritime shipping law by having successfully attended an approved training course. If this proof cannot be furnished at the time of application, an endorsement of recognition valid for a maximum of three months can be issued once.

(4) The endorsement shall be issued for a fixed period of time pursuant to Section 8. However, the period of validity must not exceed the period of validity of the certificate of competency submitted for recognition.

(5) The Federal Agency may, upon request, recognize certificates of competency and professional certificates for service on ships other than those referred to in subsection 1 issued by another Member State of the European Union or state party to the Agreement on the European Economic Area or issue certificates of equivalent competency if the holders of

a certificate of competency prove that they have knowledge equivalent to that required of the holder of a comparable German seafarer's qualification. An adaptation period or appropriate professional experience may be required in individual cases.

Section 21

Certificates of competency and certificates of proficiency from third states

A certificate of competency from states other than those referred to in Section 20 may, upon request, be recognized if this has been agreed with the third state in question within the meaning of Regulation I/10, paragraph 1.2 of the Annex to the STCW Convention. Section 20(2) to (5) shall be applied mutatis mutandis. The first sentence shall also apply to certificates of proficiency as master or officer on tankers specified in sections A-V/1-1 and A-V/1-2 of the STCW Code.

Section 22

Foreign certificates of proficiency, evidence of qualification

A certificate of proficiency or evidence of qualification issued by a Party to the STCW Convention shall be deemed to be the corresponding certificate of proficiency or evidence of qualification under these Regulations without a procedure as described in Section 20 or 21 being required. The first sentence does not apply to certificates of proficiency as master or officer on tankers specified in sections A-V/1-1 and A-V/1-2 of the STCW Code.

Chapter 5

Other general provisions

Section 23

Fraud and other unlawful practices in connection with certificates

As part of its remit for keeping the Record of Seafarers' Competencies under Section 9f of the Maritime Shipping (Federal Competences) Act (SeeAufgG), the Federal Agency shall act as the competent authority within the meaning of Article 8 of Directive 2008/106/EC. It shall be responsible for taking the measures necessary for detecting and combating fraud or other unlawful practices in connection with the issuing and revalidation of certificates. This shall also include the exchange of information with the competent authorities of other countries within the meaning of Article 8(2) of Directive 2008/106/EC, taking into account the provisions of Section 9f(4) and (5) of the Maritime Shipping (Federal Competences) Act (SeeAufgG).

Section 24

Authorizations in the case of deviations from the training course and the obtaining of certificates

(1) The Federal Agency may, upon request, authorize deviations from the provisions governing the obtaining of certificates of competency and certificates of proficiency if the candidate has, through other training courses and activities, in particular in the Federal Waterways and Shipping Administration, the federal fisheries protection and deep-sea fishing monitoring agencies, the Federal Armed Forces, the Federal Police and the federal state river police forces, obtained competencies that are equivalent to the provisions of these Regulations. This rule shall not be applied in the cases listed in Section 43(2)(1).

(2) In connection with obtaining certificates of competency for masters and officers, proof of having participated in a vocational aptitude test shall have to be furnished. For obtaining certificates of competency for service at management level within the framework of the activities mentioned in the first sentence of subsection 1, proof of periods of sea-going service in the relevant capacity shall be furnished by way of a valid certificate of competency in accordance with these Regulations; recognitions of deviations that fall within the scope of agreements concluded especially for the purpose of the first sentence of subsection 1 between the Federal Agency and the institutions mentioned therein shall be excepted from this.

Section 25

Dispensations

The Federal Agency may, if this does not cause danger to persons, property or the environment, upon request authorize a dispensation in accordance with Article VIII of the STCW Convention or Article 16 of Directive 2008/106/EC permitting a specified officer to serve on a specified commercial ship flying the flag of the Federal Republic of Germany for a specified period not exceeding six months in a capacity for which he or she does not hold the appropriate certificate. No dispensation shall be authorized for a master or chief engineer officer except in circumstances of force majeure and then only for the shortest possible period.

Section 26

Requirement to keep certificates available on board

Holders of certificates shall be obliged to keep the originals of these certificates, or an electronic document of equivalent probative value, available on board if the certificates are relevant to the tasks they have been assigned.

Section 27

Issuing of replacements, identical certificates and exchange

- (1) Persons who can credibly show that they have lost a certificate issued to them under these Regulations, or that the certificate has become unusable, or that they have changed their name shall, upon request, receive a replacement.
- (2) Subsection 1 does not apply to certificates of proficiency for ship safety or other certificates of indefinite duration that include an equivalent competency. For these, it shall be demonstrated that the conditions of paras. 1 to 3 of the first sentence of Section 5(1) are satisfied at the time the application for issue of a replacement is made.
- (3) The Federal Agency may, upon request, issue an identical certificate attesting to lost or unusable certificates.
- (4) Certificates of competency for navigation or marine engineering as officer or master issued before 1 June 2014 may, upon request, by analogous application of the first sentence of Section 24(1), be exchanged for certificates of competency issued under these Regulations. Certificates of competency as skipper on small vessels may, upon request, be exchanged for a certificate of competency as master on domestic voyages GT 100 (master NK 100). Certificates of competency as engine operator issued before 1 June 2014 with a time limit imposed on the permit in accordance with the Officer Training Regulations in the version promulgated on 15 January 1992 (Federal Law Gazette I, pp. 22, 227), as repealed by Section 66(2) of the Regulations of 8 May 2014 (Federal Law Gazette I, p. 460), may, upon request, be exchanged for certificates of competency as engine operator (TSM) in accordance with these Regulations.

Part 2

Competencies and proficiencies for the deck department

Chapter 1

Navigational service excluding fishing vessels

Section 28

Seagoing service requirements

- (1) To obtain the certificates of competency referred to in Section 29(1), candidates must complete seagoing service on commercial vessels of 500 gross tonnage or more or on commercial vessels engaged on non-near-coastal voyages.
- (2) To obtain the certificate of competency referred to in Section 29(2), candidates must complete seagoing service on commercial vessels of 100 gross tonnage or more or on commercial vessels engaged on near-coastal voyages at a distance of six or more nautical miles off the German coast or on commercial vessels approved for the transport of more than 12 passengers.

- (3) To obtain the certificate of competency referred to in Section 29(3), candidates must complete seagoing service on commercial vessels.
- (4) The seagoing service referred to in subsections 1 and 2 must not be on fishing vessels.
- (5) Subsections 1 to 4 shall apply mutatis mutandis to the demonstration of continued professional competence pursuant to Section 53.

Section 29

Certificates of competency and certificates of proficiency

(1) For navigational service, certificates of competency shall, upon request, be issued for certification as:

1. officer in charge of the navigational watch (NWO);
2. chief mate (NEO); and
3. master (NK).

The certificate of competency as officer in charge of the navigational watch shall include certification as chief mate on commercial vessels of less than 3000 gross tonnage.

(2) For navigational service on ships of less than 500 gross tonnage engaged on near-coastal voyages within the meaning of Regulation II/3 of the Annex to the STCW Convention, certificates of competency shall, upon request, be issued for certification as:

1. officer in charge of the navigational watch on near-coastal voyages (NWO 50);
and
2. master on near-coastal voyages (NK 500).

(3) For navigational service:

1. on ships of less than 100 gross tonnage and with a propulsion power of up to 300 kilowatts engaged on domestic voyages at a distance of up to six nautical miles off the German coast and carrying 12 passengers or fewer; as well as
2. on boats plying between two places;

a certificate of competency shall, upon request, be issued for certification as master (NK 100) within the meaning of Regulation II/3, paragraph 7 of the Annex to the STCW Convention. Certificates of competency for navigational service pursuant to subsections 1 and 2 shall include certification as master (NK 100).

(4) For navigational service at the support level, certificates of proficiency shall, upon request, be issued certifying:

1. navigational watch proficiency (NWB), which qualifies ratings to form part of a navigational watch; and
2. proficiency as able seafarer deck (NVM).

Section 30

Requirements for obtaining certificates of competency

(1) To obtain a certificate of competency as officer in charge of the navigational watch (NWO), candidates shall demonstrate that:

1. they
 - a) are in possession of a certificate of final examination in the regulated profession of ship mechanic; or
 - b) have completed an approved course of practical training and seagoing service as an assistant navigational officer in accordance with the Guidelines for the Training of Assistant Navigational Officers in Maritime Shipping of 26 April

2018 (Federal Ministry of Transport Gazette 2018, p. 365) of at least twelve months;

2. they have completed a course of training lasting at least two years in accordance with the requirements set out in sections A-II/1, A-II/2, A-IV/2, A-VI/4 and A-VI/5 of the STCW Code at a training institution established under federal state law;
3. they are in possession of valid certificates of proficiency in accordance with the requirements set out in sections A-VI/2, paragraphs 1 to 4 and A-VI/3, paragraphs 1 to 4 of the STCW Code.

In the case referred to in para. 1(b) of the first sentence, the training and seagoing service may also be completed as a placement under educational law or in the form of practical semesters during their training at a training institution established under federal state law. In the case referred to in the second sentence, candidates shall keep a training record book in which the master or a qualified officer confirms that the candidates performed, during the required seagoing service, bridge watchkeeping duties under the supervision of the master or a qualified officer for a period of not less than six months and that the onboard training met the appropriate requirements set out in section A-II/1 of the STCW Code.

(2) To obtain a certificate of competency as chief mate (NEO), candidates shall demonstrate that they have seagoing service of not less than twelve months in the capacity of officer in charge of a navigational watch (NWO). Continued competence pursuant to Section 53 shall be demonstrated at the time of application.

(3) To obtain a certificate of competency as master (NK), candidates shall demonstrate that, in addition to the seagoing service referred to in subsection 2, they have further seagoing service of not less than twelve months in the capacity of chief mate (NEO) or 24 months in the capacity of officer in charge of a navigational watch (NWO). Continued competence pursuant to Section 53 shall be demonstrated at the time of application.

(4) To obtain a certificate of competency as officer in charge of the navigational watch (NWO 500), candidates shall demonstrate that:

1. they
 - a) are in possession of a certificate of final examination in the regulated profession of ship mechanic;
 - b) have completed an approved course of practical training and seagoing service as an assistant navigational officer in maritime shipping in accordance with the Guidelines for the Training of Assistant Navigational Officers in Maritime Shipping of not less than twelve months;
 - c) are in possession of a certificate of final examination in the regulated profession of fish farmer specializing in high-sea and coastal fishing and that they subsequently completed twelve months of seagoing service in the deck department; or
 - d) have seagoing service of not less than 36 months in the deck department;
2. they have completed a course of training in accordance with the requirements set out in sections A-II/3, A-IV/2, A-VI/4, paragraphs 1 to 3 of the STCW Code lasting normally one half of a school year at a training institution established under federal state law; and
3. they are in possession of valid certificates of proficiency in accordance with the requirements set out in sections A-VI/2, paragraphs 1 to 4 and A-VI/3, paragraphs 1 to 4 of the STCW Code.

In the cases referred to in para. 1(b) of the first sentence, candidates shall keep a training record book in which the master or a qualified officer confirms that the onboard training met the appropriate requirements set out in section A-II/3 of the STCW Code.

(5) To obtain a certificate of competency as master (NK 500), candidates shall demonstrate that they have seagoing service of not less than twelve months in the capacity of officer in charge of a navigational watch (NWO 500). Continued competence pursuant to Section 53 shall be demonstrated at the time of application.

(6) To obtain a certificate of competency as master (NK 100), candidates shall demonstrate that they have:

1. seagoing service of not less than six months in the deck department; and
2. completed a course of training in accordance with the requirements set out in regulation II/3, paragraph 7 in conjunction with sections A-II/3 and A-IV/2 of the STCW Code at a training institution established under federal state law in accordance with Annex 3 with a duration of normally not less than three months.

Section 31

Requirements for obtaining certificates of proficiency

(1) To obtain a navigational watch (NWB) certificate of proficiency, candidates must demonstrate that

1. they have completed:
 - a) seagoing service of not less than six months; or
 - b) seagoing service of not less than two months in addition to a special training or an approved course of training, either on board ship or pre-sea; and
2. they have the standard of competence specified in section A-II/4 of the STCW Code.

The seagoing service and training referred to in para. 1 of the first sentence shall be associated with navigational watchkeeping duties and must be performed under the direct supervision of the master, an officer in charge of the navigational watch or another crew member who is qualified in accordance with this chapter. In cases referred to in para. 1(a) of the first sentence, proof of the standard of competence required by para. 2 of the first sentence shall be furnished by means of an examination, upon request, conducted by the Federal Agency in accordance with Annex 4. The Federal Agency may involve the Berufsbildungsstelle Seeschifffahrt e.V. when conducting the examination.

(2) To obtain a certificate of proficiency as able seafarer deck (NVM), candidates must demonstrate that they:

1. hold a sailor's licence (Matrosenbrief) issued in accordance with German law before 1 June 2014, that the conditions of Section 29(4)(1) are satisfied and that they hold a valid certificate of proficiency in accordance with Section 45(1); or
2. have completed a course of training in accordance with the requirements set out in section A-II/5 of the STCW Code as a ship's operation technical assistant (navigation) at a training institution established under federal state law, a valid certificate of proficiency in accordance with Section 45(1) and that they have undergone a course of practical training approved by the Federal Agency and seagoing service in the deck department at the support level of not less than six and a half months.

Chapter 2

Navigational service on fishing vessels

Section 32

Seagoing service requirements

Seagoing service within the meaning of this chapter must be on fishing vessels of twelve metres length and over. The first sentence does not apply to obtaining a certificate of competency as skipper (BKü).

Section 33 Certificates of competency

(1) For navigational service on fishing vessels of 24 metres length and over, the following shall be issued upon request:

1. regarding certification as skipper, a certificate of competency
 - a) as master (BG) authorizing the holder to serve as skipper and chief mate in deep-sea fishing; and
 - b) as master (BK) authorizing the holder to serve as skipper in high-sea fishing;
2. regarding certification as officer, a certificate of competency
 - a) as officer in charge of the navigational watch (BGW) authorizing the holder to serve as officer of the watch in deep-sea fishing; and
 - b) as officer in charge of the navigational watch (BKW) authorizing the holder to serve as officer of the watch in high-sea fishing.

(2) For navigational service on fishing vessels of less than 24 metres length engaged in coastal fishing, a certificate of competency as skipper (BKü) shall be issued upon request. Certificates of competency as skipper (BKü) obtained before 1 June 2014 shall retain their validity regarding the operation of fishing vessels measuring up to 75 GRT/ 150 GT, irrespective of the length of the vessel.

(3) The powers of a certificate of competency as a higher-order master shall include the powers of a lower-order certificate of competency. The certificate of competency as officer in charge of the navigational watch (BGW) shall include the powers of the certificate of competency as officer in charge of the navigational watch (BKW). By way of supplement to the first sentence, the certificate of competency as officer in charge of the navigational watch (BKW) shall include the powers of the certificate of competency as skipper (BKü) if the requirements set out in Section 6 are met. Certificates of competency for navigational service on fishing vessels shall include certification as master (NK 100). For holders of a certificate of competency as skipper (BKü), the fourth sentence shall only apply if they have passed a final examination at a training institution established under federal state law and if their certificate of final examination states that their achievement in marine engineering is at least adequate or if their graduation certificate as fish farmer confirms that their achievement in the subject of engine technology is adequate.

(4) Holders of a certificate of competency as skipper (BKü) who have passed their final examination at the training institutions established under federal state law and whose certificate of final examination states that their achievement in marine engineering is at least adequate shall, upon request, receive the following addition on their certificate of competency (BKü): "The holder is also authorized to supervise propulsion plants with a power output of up to and including 300 kilowatts on fishing vessels engaged in coastal fishing and on small vessels."

Section 34 Requirements for obtaining certificates of competency

(1) To obtain a certificate of competency as officer in charge of the navigational watch (BGW), candidates shall demonstrate that they:

1. have at least 24 months of seagoing service in the deck department on deep-sea fishing vessels; or

2. are in possession of a certificate of final examination in the regulated profession of ship mechanic, able seafarer or fish farmer specializing in high-sea and coastal fishing and that they subsequently completed twelve months of seagoing service in the deck department on deep-sea fishing vessels.

In addition, candidates shall demonstrate that they have completed a course of training lasting at least two years in accordance with the requirements set out in Annex 5 at a training institution established under federal state law.

(2) To obtain a certificate of competency as officer of the navigational watch (BKW) and skipper (BKü), candidates shall demonstrate that they are in possession of a certificate of final examination in the regulated profession of ship mechanic, able seafarer or fish farmer specializing in high-sea and coastal fishing and that they subsequently completed twelve months of seagoing service in the deck department on deep-sea fishing vessels, plus,

1. to obtain a certificate of competency as officer in charge of the navigational watch (BKW), that they have successfully completed a course of training lasting at least two semesters and

2. to obtain a certificate of competency as skipper (BKü), that they have successfully completed a course of training lasting at least one semester

in accordance with the requirements set out in Annex 5 at a training institution established under federal state law.

(3) To obtain a certificate of competency as master (BG), candidates shall demonstrate that they have seagoing service of 24 months in the capacity of officer in charge of a navigational watch in deep-sea fishing.

(4) To obtain a certificate of competency as master (BK), candidates shall demonstrate that they have seagoing service of 24 months in the capacity of officer in charge of a navigational watch in high-sea fishing.

Chapter 3 Maritime mobile service

Section 35 Certificates of competency as GMDSS radio operator

For the performance of maritime mobile service on radio stations on commercial vessels participating in the Global Maritime Distress and Safety System (GMDSS), the following certificates of competency shall, in accordance with section A-IV/2 of the STCW Code and upon request, be issued for the certification of GMDSS radio operators:

1. the General Operator's Certificate (GOC) for the unrestricted performance of maritime mobile service on ship radiotelephone stations, ship earth stations and all GMDSS radio equipment; and
2. the Restricted Operator's Certificate (ROC) for performance of maritime mobile service on VHF ship radiotelephone stations and VHF GMDSS radio equipment.

Section 36 Requirements for obtaining certificates of competency as GMDSS radio operator

To obtain a certificate of competency as GMDSS radio operator, candidates shall demonstrate that they have completed a course of nautical training in accordance with Section 30 or 34 at training institutions established under federal state law. The requirements referred to in the first sentence shall be deemed to have been met if candidates have successfully attended an approved course of training in accordance with the requirements set out in section A-IV/2 of the STCW Code.

Part 3 Competencies for the engine department

Section 37

Seagoing service requirements

- (1) Seagoing service within the meaning of this part shall be on commercial ships with a propulsion power of 750 kilowatts or more.
- (2) Subsection 1 does not apply to candidates for a certificate of competency pursuant to Section 38(2).
- (3) Subsection 1 applies mutatis mutandis to the demonstration of continued competence pursuant to Section 53.

Chapter 1

Marine engineering service

Section 38

Certificates of competency and certificates of proficiency

(1) For marine engineering service in a manned engine room or as a designated duty engineer in a periodically unmanned engine room for propulsion plants of any power output, certificates of competency shall, upon request, be issued for certification as:

1. officer in charge of the engineering watch (TWO);
2. second engineer officer (TZO); and
3. chief engineer officer (TLM).

The certificate of competency as second engineer officer shall include certification as chief engineer officer for propulsion plants with a power output not exceeding 3,000 kilowatts; this shall not apply to certificates of competency issued under the condition stipulated in para. 2(b) of the first sentence of Section 53(1).

(2) For marine engineering service for propulsion plants with a power output not exceeding 750 kilowatts, a certificate of competency as engine operator (TSM) shall be issued upon request.

(3) For marine engineering service in a manned engine room or as a designated duty engineer in a periodically unmanned engine room with a propulsion plant with a power output of 750 kilowatts or more, certificates of proficiency shall, upon request, be issued for:

1. engine-room watch proficiency (TWB), qualifying the holder to form part of watch in a manned engine room or to be designated to perform duties in a periodically unmanned engine room; and
2. proficiency as able seafarer engine (TVM).

Section 39

Requirements for obtaining certificates of competency

(1) To obtain a certificate of competency as officer in charge of the engineering watch (TWO), candidates shall demonstrate that:

1. they
 - a) are in possession of a certificate of final examination in the regulated profession of ship mechanic;
 - b) are in possession of a certificate of final examination in a regulated metalworking or electrical engineering profession recognized in accordance with para. 1 of the first sentence of Section 3(5) that includes a course of training in metalwork in accordance with Annex 6 lasting at least 14 weeks and the expansion in depth of this proficiency by means of the practical application of the syllabus during the period of vocational training and have completed an approved course of practical training and seagoing service as an assistant engineer officer in accordance with the Guidelines for the Training of Assistant Engineer Officers

in Maritime Shipping of 17 November 2020 (Ministry of Transport Gazette 2020, p. 802) of at least twelve months;

c) are in possession of a certificate of final examination as a ship's operation technical assistant (engineering) and have completed an approved course of practical training and seagoing service as an assistant engineer officer in accordance with the Guidelines for the Training of Assistant Engineer Officers in Maritime Shipping of at least twelve months; or

d) have completed an approved course of practical training and seagoing service as an assistant engineer officer in accordance with the Guidelines for the Training of Assistant Engineer Officers in Maritime Shipping of at least 18 months;

2. they have completed a course of training lasting at least two years in accordance with the requirements set out in sections A-III/1 and A-III/2, including section A-VI/4, paragraphs 1 to 3 of the STCW Code at a training institution established under federal state law; and

3. they are in possession of valid certificates of proficiency in accordance with the requirements set out in sections A-VI/2, paragraphs 1 to 4 and A-VI/3, paragraphs 1 to 4 of the STCW Code.

In the case referred to in para. 1(c) of the first sentence, the training and seagoing service may also be completed as a placement under educational law or in the form of practical semesters during their training at a training institution established under federal state law. In the case referred to in the second sentence, candidates shall keep a training record book in which the chief engineer officer or a qualified officer confirms that the candidates performed, during the required seagoing service, engineering watchkeeping duties under the supervision of the chief engineer officer or a qualified officer for a period of not less than six months and that the onboard training met the appropriate requirements set out in section A-III/1 of the STCW Code.

(2) To obtain a certificate of competency as second engineer officer (TZO), candidates shall demonstrate that they have seagoing service of not less than twelve months in the capacity of officer in charge of an engineering watch (TWO). Continued competence pursuant to Section 53 shall be demonstrated at the time of application.

(3) To obtain a certificate of competency as chief engineer officer (TLM), candidates shall demonstrate that, in addition to the seagoing service referred to in subsection 2, they have further seagoing service of not less than twelve months in the capacity of second engineer officer or 24 months in the capacity of officer in charge of an engineering watch. Continued competence pursuant to Section 53 shall be demonstrated at the time of application.

(4) To obtain a certificate of competency as engine operator (TSM), candidates shall demonstrate that:

1. they

a) are in possession of a certificate of final examination in the regulated profession of ship mechanic;

b) are in possession of a certificate of final examination in a regulated metalworking or electrical engineering profession recognized in accordance with para. 1 of the first sentence of Section 3(5) that includes a course of training in metalwork in accordance with Annex 6 lasting at least seven weeks and have at least six months of seagoing service as an engineer; or

c) are in possession of a certificate of navigational competence in accordance with Part 2, with the exception of the certificate of competency issued under

Section 29(3), and have completed a course of training in metalwork in accordance with Annex 6 lasting at least seven weeks; and

2. they have completed a course of training in accordance with the requirements set out in Annex 7 lasting normally one half of a school year at a training institution established under federal state law.

Section 40

Requirements for obtaining certificates of proficiency

(1) To obtain an engine-room watch (TWB) certificate of proficiency, candidates must demonstrate that:

1. they
 - a) have seagoing service of at least six months and have completed a course of training in metalwork in accordance with Annex 6 lasting at least seven weeks or are in possession of a certificate of final examination in a regulated metalworking or electrical engineering profession recognized in accordance with para. 1 of the first sentence of Section 3(5) that includes a course of training in metalwork in accordance with Annex 6 lasting at least seven weeks and the expansion in depth of proficiency by means of the practical application of the syllabus during the period of vocational training; or
 - b) have seagoing service of at least two months in addition to a special training or an approved course of training including a course of training in metalwork in accordance with Annex 6 lasting at least seven weeks; and
2. they have the standard of competence specified in section A-III/4 of the STCW Code.

The seagoing service and training referred to in the first sentence shall be associated with engine-room duties and must be performed under the direct supervision of an engineer officer or another crew member who is qualified in accordance with this chapter. In cases referred to in para. 1(a) of the first sentence, proof of the standard of competence required by para. 2 of the first sentence shall be furnished by means of an examination, upon request, conducted by the Federal Agency in accordance with Annex 4. The Federal Agency may involve the Berufsbildungsstelle Seeschifffahrt e.V. when conducting the examination.

(2) To obtain a certificate of proficiency as able seafarer engine (TVM), candidates must demonstrate that they:

1. hold a sailor's licence (Matrosenbrief) issued in accordance with German law before 1 June 2014, that the conditions of Section 38(3)(1) are satisfied; or
2. have completed a course of training in accordance with the requirements set out in section A-III/5 of the STCW Code as a ship's operation technical assistant (engineering) at a training institution established under federal state law and that they have undergone a course of practical training approved by the Federal Agency and seagoing service in the engine department at the support level of at least two weeks.

Chapter 2

Electro-technical service

Section 41

Certificate of competency and certificate of proficiency

For electro-technical service on ships with a propulsion power of 750 kilowatts or more, a certificate of competency as electro-technical officer (ETO) and a certificate of proficiency as electro-technical rating (ESE) shall be issued upon request.

Section 42
Requirements for obtaining a certificate of competency and a certificate of proficiency

(1) To obtain a certificate of competency as electro-technical officer (ETO), candidates shall demonstrate that:

1. they
 - a) are in possession of a certificate of final examination in the regulated profession of ship mechanic and have completed an approved course of practical training and have seagoing service as an assistant electro-technical officer in accordance with the Guidelines for the Training of Assistant Electro-Technical Officers in Maritime Shipping of 5 December 2018 (Ministry of Transport Gazette 2018, p. 883) of at least six months;
 - b) are in possession of a certificate of final examination in a regulated electrical engineering profession recognized in accordance with para. 1 of the first sentence of Section 3(5) that includes a course of training in electrical manufacturing and metalwork in accordance with Annex 6a lasting at least nine weeks and the expansion in depth of this proficiency by means of the practical application of the syllabus during the period of vocational training and have completed an approved course of practical training and have seagoing service as an assistant electro-technical officer in accordance with the Guidelines for the Training of Assistant Electro-Technical Officers in Maritime Shipping, as amended, of at least six months;
 - c) are in possession of a certificate of completion of a technical college education or a university degree that includes a course of training in electrical manufacturing and metalwork in accordance with Annex 6a lasting at least nine weeks and the expansion in depth of this proficiency by means of the practical application of the syllabus during the period of study and have completed an approved course of practical training and have seagoing service as an assistant electro-technical officer in accordance with the Guidelines for the Training of Assistant Electro-Technical Officers in Maritime Shipping, as amended, of at least six months; or
 - d) have completed an approved course of practical training and have seagoing service as an assistant electro-technical officer in accordance with the Guidelines for the Training of Assistant Electro-Technical Officers in Maritime Shipping of twelve months;
2. they have completed a course of training lasting at least two years in accordance with the requirements set out in section A-III/6, including section A-VI/4, paragraphs 1 to 3 of the STCW Code at a training institution established under federal state law; and
3. they are in possession of valid certificates of proficiency in accordance with the requirements set out in sections A-VI/2, paragraphs 1 to 4 and A-VI/3, paragraphs 1 to 4 of the STCW Code.

(2) In the case referred to in subsection 1(1)(d), the training and seagoing service may also be completed as a placement under educational law or in the form of practical semesters during their training at a training institution established under federal state law. In the case referred to in the first sentence, candidates shall keep a training record book in which the chief engineer officer or a qualified officer confirms that the onboard training met the appropriate requirements set out in section A-III/6 of the STCW Code.

(3) Holders of a certificate of competency described in Section 38(1) shall be deemed to have met the requirements set out in subsection 1 if they demonstrate that they have completed an inter-company training course in electrical manufacturing in accordance with Annex 6a lasting at least seven weeks and a course of training in accordance with section A-III/6 of the STCW Code at a training institution established under federal state law. Seafarers who demonstrate that they have had seagoing service of at least twelve months in an equivalent capacity within the last five years before 1 June 2014, may, upon request, be issued a certificate of competency as electro-technical officer (ETO), provided that the requirements set out in paras. 2 and 3, including demonstration that they have completed an approved course of training in the operation and maintenance of power systems in excess of 1,000 volts, have been met.

(4) To obtain a certificate of proficiency as electro-technical rating (ESE), candidates shall demonstrate that they:

1. are in possession of a certificate of final examination in a regulated electrical engineering profession recognized in accordance with para. 1 of the first sentence of Section 3(5) that includes a course of training in electrical manufacturing and metalwork in accordance with Annex 6a lasting at least nine weeks and the expansion in depth of this proficiency by means of the practical application of the syllabus during the period of vocational training;
2. have undergone a course of practical training approved by the Federal Agency and have electro-technical service at the support level of at least six months; and
3. have the standard of competence specified in section A-III/7 of the STCW Code.

Part 4 Proficiencies in ship operations

Section 43 Certificate of proficiency as ship mechanic

(1) For service at the support level in ship operations, a certificate of proficiency as ship mechanic (GSM) in accordance with the Vocational Training of Seafarers Regulations shall, upon request, be issued in accordance with section A-VII/2 in conjunction with section A-II/5 and A-III/5 of the STCW Code.

(2) To obtain a certificate of proficiency as ship mechanic (GSM), candidates shall demonstrate that they:

1. are in possession of a certificate of final examination in the regulated profession of ship mechanic; and
2. are in possession of a valid certificate of proficiency in accordance with the requirements set out in section A-VI/2, paragraphs 1 to 4, of the STCW Code.

(3) Trainee ship mechanics may be given, upon request:

1. after successful completion of inter-company training courses in fire-fighting, rescue operations and security – certificates of proficiency in basic safety training and basic security training on the ship; and
2. after successful completion of part I of the final examination – certificates of navigational watch proficiency, engine-room watch proficiency and proficiency in the operation of survival craft and rescue boats.

Part 5 Proficiencies in ship safety and security

Section 44

Certificate of proficiency regarding the basic requirements of safety on board (basic safety training)

(1) Seafarers who are, in any capacity, permanently or temporarily employed on board the ship in the context of its operation as part of the ship's crew with designated duties in the fields of safety or pollution prevention shall, upon request, be issued a certificate of proficiency in basic safety training (SGA).

Notwithstanding the master's obligation under Section 23 of the Maritime Labour Act to conduct a safety briefing for all persons on board who are not passengers, one crew member, to whom duties regarding the ensuring of ship safety and the prevention of environmental pollution on board are to be assigned, must be the holder of a certificate of proficiency certifying completion of basic safety training.

(2) To obtain a certificate of proficiency in accordance with the first sentence of subsection 1, candidates must demonstrate that they have completed an approved course of training in:

1. personal survival techniques in accordance with the requirements set out in table A-VI/1-1 of the STCW Code;
2. fire prevention and fire fighting in accordance with the requirements set out in table A-VI/1-2 of the STCW Code;
3. elementary first aid in accordance with the requirements set out in table A-VI/1-3 of the STCW Code; and
4. personal safety and social responsibilities in accordance with the requirements set out in table A-VI/1-4 of the STCW Code.

(3) For service on fishing vessels, a certificate of proficiency in accordance with subsection 1 may, upon request, be issued for holders of a certificate of competency as described in Section 33 without reference to Regulation VI/1 of the Annex to the STCW Convention.

Section 45

Certificates of proficiency for the operation of survival craft and rescue boats plus fast rescue boats

(1) For service on survival craft and rescue boats, a certificate of proficiency for the operation of survival craft and rescue boats (SÜB) shall be issued upon request.

(2) To obtain the certificate of proficiency referred to in subsection 1, candidates shall demonstrate that they:

1. have seagoing service of not less than six months; and
2. have completed an approved course of training in accordance with the requirements set out in section A-VI/2, paragraphs 1 to 4 of the STCW Code.

The course of training referred to in para. (2) of the first sentence must also provide proficiency in the safe operation of free-fall lifeboats.

(3) For service on fast rescue boats, a certificate of proficiency for the operation of fast rescue boats (SSB) shall be issued upon request.

(4) To obtain the certificate of proficiency referred to in subsection 3, candidates shall demonstrate that they:

1. are in possession of a valid certificate of proficiency in accordance with subsection 1; and
2. have attended an approved course of training in accordance with the requirements set out in section A-VI/2, paragraphs 7 to 10, of the STCW Code.

Section 46

Certificate of proficiency in the control of fire-fighting operations

(1) A certificate of proficiency in the control of fire-fighting operations (SLB) shall be issued upon request.

(2) To obtain the certificate of proficiency referred to in subsection 1, candidates shall demonstrate that they have completed an approved course of training in accordance with the requirements set out in section A-VI/3, paragraphs 1 to 4, of the STCW Code, with particular emphasis on the organization, planning and tactics in the conduct of fire-fighting operations.

Section 47

Certificate of proficiency for ship security officers

For service as ship security officer, a certificate of proficiency for ship security officers (SSO) shall be issued upon request. To obtain the certificate of proficiency referred to in the first sentence, candidates shall demonstrate that they:

1. meet the requirements for obtaining a certificate of proficiency in basic security training on the ship;
2. have seagoing service of not less than twelve months on ships subject to the ISPS Code; and
3. have completed an approved course of training in accordance with the requirements set out in section A-VI/5 of the STCW Code.

Section 48

Certificates of proficiency for crew members in ship security (basic security training)

(1) Seafarers shall, upon request, be issued a certificate of proficiency attesting to a basic security training (SRT) on the ship. Notwithstanding the master's obligation under Section 23 of the Maritime Labour Act to conduct a safety briefing, all persons who are not passengers shall receive familiarization training on board in accordance with section A-VI/6, paragraph 1, of the STCW Code from the ship security officer or another qualified crew member so that they are able to:

1. recognize and report security threats, including threats by pirates or other armed attacks;
2. know the procedures to be followed in the event of a security threat; and
3. perform functions set out in the security plan.

(2) To obtain a certificate of proficiency in accordance with the first sentence of subsection 1, candidates must demonstrate that they have completed an approved course of training:

1. in accordance with the requirements set out in table A-VI/6-1 of the STCW Code (proficiency in enhancing security awareness); and
2. in accordance with the requirements set out in table A-VI/6-2 of the STCW Code (proficiency of seafarers with specific security-related duties).

Part 6

Additional proficiencies for service on special types of vessel

Chapter 1

Proficiencies for service on tankers

Section 49

Certificates of proficiency for service on oil and chemical tankers

(1) For officers and other crew members with specific designated duties and responsibilities related to the cargo or cargo facilities on oil and chemical tankers, a certificate of proficiency attesting to a basic training in cargo handling on oil and chemical tankers (ÖL-CHEM-G) shall be issued upon request.

(2) To obtain the certificate of proficiency referred to in subsection 1, candidates shall demonstrate that, in addition to having completed an approved course of training in fire-fighting operations in accordance with the requirements set out in section A-V/1-1, paragraph 1 of the STCW Code, they:

1. have seagoing service of at least three months on oil or chemical tankers and adequate knowledge in accordance with the requirements set out in section A-V/1-1, paragraph 1 of the STCW Code; or
2. have completed an approved course of training (ÖL-CHEM-G) in accordance with the requirements set out in section A-V/1-1, paragraph 1 of the STCW Code.

(3) For the master, the chief engineer officer, the chief mate, the second engineer officer and every other crew member with immediate responsibility for loading and discharge operations, cargo care, cargo handling, tank cleaning or other cargo-related activities on oil tankers, a certificate of proficiency attesting to an advanced training in cargo handling on oil tankers (ÖL-F) shall be issued upon request.

(4) To obtain the certificate of proficiency referred to in subsection 3, candidates shall demonstrate that they:

1. in addition to the proficiency acquired and maintained in accordance with subsection 2,
 - a) have seagoing service of not less than three months on oil tankers; or
 - b) have completed a shortened course of training approved by the Federal Agency in a supernumerary capacity on board tankers lasting at least one month on board oil tankers in a supernumerary capacity, in which at least three loading and discharge operations have been performed and the training is documented in an approved training record book in accordance with the guidance provided in section B-V/1 of the STCW Code; and
2. have completed an approved course of training (ÖL-F) in accordance with the requirements set out in section A-V/1-1, paragraph 2 of the STCW Code.

(5) For the master, the chief engineer officer, the chief mate, the second engineer officer and every other crew member with immediate responsibility for loading and discharge operations, cargo care, cargo handling, tank cleaning or other cargo-related activities on chemical tankers, a certificate of proficiency attesting to an advanced training in cargo handling on chemical tankers (CHEM-F) shall be issued upon request.

(6) To obtain the certificate of proficiency referred to in subsection 5, candidates shall demonstrate that they:

1. in addition to the proficiency acquired and maintained in accordance with subsection 2,
 - a) have seagoing service of not less than three months on chemical tankers; or
 - b) have completed a shortened course of training approved by the Federal Agency in a supernumerary capacity on board tankers lasting at least one month on board chemical tankers in a supernumerary capacity, in which at least three loading and discharge operations have been performed and the training is documented in an approved training record book in accordance with the guidance provided in section B-V/1 of the STCW Code; and
2. have completed an approved course of training (CHEM-F) in accordance with the requirements set out in section A-V/1-1, paragraph 3 of the STCW Code.

Section 50
Certificates of proficiency for service on liquefied gas tankers

(1) For officers and other crew members with specific designated duties and responsibilities related to the cargo or cargo facilities on liquefied gas tankers, a certificate of proficiency attesting to a basic training in cargo handling on liquefied gas tankers (GAS-G) shall be issued upon request.

(2) To obtain the certificate of proficiency referred to in subsection 1, candidates shall demonstrate that, in addition to having completed an approved course of training in fire-fighting operations in accordance with the requirements set out in section A-V/1-2, paragraph 1 of the STCW Code, they:

1. have seagoing service of at least three months on liquefied gas tankers and adequate knowledge in accordance with the requirements set out in section A-V/1-2, paragraph 1 of the STCW Code; or
2. have completed an approved course of training (GAS-G) in accordance with the requirements set out in section A-V/1-2, paragraph 1 of the STCW Code.

(3) For the master, the chief engineer officer, the chief mate, the second engineer officer and every other crew member with immediate responsibility for loading and discharge operations, cargo care, cargo handling, tank cleaning or other cargo-related activities on liquefied gas tankers, a certificate of proficiency attesting to an advanced training in cargo handling on liquefied gas tankers (GAS-F) shall be issued upon request.

(4) To obtain the certificate of proficiency referred to in subsection 3, candidates shall demonstrate that they:

1. in addition to the proficiency acquired and maintained in accordance with subsection 2,
 - a) have seagoing service of not less than three months on liquefied gas tankers; or
 - b) have completed a shortened course of training approved by the Federal Agency in a supernumerary capacity on board tankers lasting at least one month on board liquefied gas tankers in a supernumerary capacity, in which at least three loading and discharge operations have been performed and the training is documented in an approved training record book in accordance with the guidance provided in section B-V/1 of the STCW Code; and
2. have completed an approved course of training (GAS-F) in accordance with the requirements set out in section A-V/1-2, paragraph 2 of the STCW Code.

Chapter 2 **Proficiencies for service on ships subject to the IGF Code**

Section 50a

Certificates of proficiency for service on ships subject to the IGF Code

(1) For masters, officers and every other member of the crew responsible for specific safety duties in connection with the careful handling and use of fuels as well as with the related emergency measures on board ships subject to the IGF Code, a certificate of proficiency attesting to a basic training for service on ships subject to the IGF Code (IGF-G) shall be issued upon request.

(2) To obtain the certificate of proficiency referred to in subsection 1, candidates shall demonstrate that they:

1. in addition to having completed an approved course of training in fire-fighting operations in accordance with the requirements set out in section A-V/3, paragraph 1 of the STCW Code, have completed an approved course of training (IGF-G) in accordance with the requirements set out in section A-V/3, paragraph 1 of the STCW Code; or

2. hold a valid certificate of proficiency in accordance with Section 50(1) or (3).
- (3) For masters, engineer officers and every other member of the crew with immediate responsibility for the careful handling and use of fuels and fuel systems on ships subject to the IGF Code, a certificate of proficiency attesting to an advanced training for service on ships subject to the IGF Code (IGF-F) shall be issued upon request.
- (4) To obtain the certificate of proficiency referred to in subsection 3, candidates shall demonstrate that they, in addition to the valid certificate of proficiency issued in accordance with subsection 2:
1. have had seagoing service of not less than one month during the preceding five years, including participation in at least three bunkering operations on board ships subject to the IGF Code; and
 2. have completed an approved course of training (IGF-F) in accordance with the requirements set out in section A-V/3, paragraph 2 of the STCW Code.

Two of the three bunkering operations in accordance with para. 1 of the first sentence can be replaced by an approved course of training on a simulator regarding bunkering operations as part of a course of training in accordance with para. 2 of the first sentence.

(5) To obtain the certificate of proficiency referred to in subsection 3, candidates shall demonstrate that they, in addition to the valid certificate of proficiency issued in accordance with Section 50(3):

1. have participated in at least three bunkering operations during the preceding five years on board ships subject to the IGF Code, or in three loading or discharge operations on liquefied gas tankers; and
2. have had seagoing service of not less than three months during the preceding five years on board:
 - a) ships subject to the IGF Code;
 - b) tankers transporting fuels covered by the IGF Code as cargo; or
 - c) ships using gases or low-flashpoint fuels as fuel.

Chapter 3 **Proficiencies for service on ships operating in polar waters**

Section 50b

Certificates of proficiency for service on ships operating in polar waters

- (1) For masters and deck officers performing watchkeeping duties on ships operating in polar waters, a certificate of proficiency attesting to a basic training for service on ships operating on polar waters (PLR-G) shall be issued upon request.
- (2) To obtain the certificate of proficiency referred to in subsection 1, candidates shall demonstrate that they have completed an approved course of training (PLR-G) in accordance with the requirements set out in section A-V/4, paragraph 1 of the STCW Code.
- (3) For masters and chief mates serving on ships operating in polar waters, a certificate of proficiency attesting to an advanced training for service on ships operating in polar waters (PLR-F) shall be issued upon request.
- (4) To obtain the certificate of proficiency referred to in subsection 3, candidates shall demonstrate that they, in addition to the proficiency acquired and maintained in accordance with subsection 2:
1. have seagoing service of not less than two months in the deck department, at the management level or performing watchkeeping duties at the operational level in polar waters or another equivalent seagoing service; and

2. have completed an approved course of training (PLR-F) in accordance with the requirements set out in section A-V/4, paragraph 2 of the STCW Code.

Chapter 4 **Proficiencies for service on passenger ships**

Section 51

Evidence of qualification for service on passenger ships

- (1) For every member of the crew of a passenger ship providing direct service to passengers in passenger spaces, evidence of qualification certifying passenger safety training in accordance with the requirements of section A-V/2, paragraph 2 of the STCW Code shall be issued. Notwithstanding the master's obligation under Section 23 of the Maritime Labour Act to conduct a safety briefing, all members of the personnel of a passenger vessel shall receive familiarization training on board in accordance with A-V/2, paragraph 1 of the STCW Code so that they are able to make a personal contribution to the implementation of emergency plans, emergency instructions and emergency procedures as well as to effective communication with the passengers in an emergency situation.
- (2) For the master, officers and the other members of the crew who are qualified in accordance with chapters II, III and VII of the Annex to the STCW Convention and every other member of the crew of a passenger ship designated on muster lists to assist passengers in emergency situations, evidence of qualification certifying their competence in crowd management on passenger vessels in accordance with the requirements set out in section A-V/2, paragraph 3 of the STCW Code shall be issued.
- (3) For the master, the chief engineer officer, the chief mate, the second engineer officer and every other member of the crew of a passenger ship designated on muster lists as having responsibility for the safety of passengers in emergencies, evidence of qualification certifying their competence in crisis management and human behaviour in accordance with the requirements set out in section A-V/2, paragraph 4 of the STCW Code shall be issued.
- (4) For the master, the chief engineer officer, the chief mate, the second engineer officer and every other member of the crew of a passenger ship with immediate responsibility for the embarkation and disembarkation of passengers, the loading, discharging or securing of cargo or the closing of hull openings on board ro-ro passenger ships, evidence of qualification certifying their competence in ensuring passenger safety, cargo safety and hull integrity in accordance with the requirements set out in section A-V/2, paragraph 5 of the STCW Code shall be issued.
- (5) Masters, officers and crew members for whom a training in accordance with subsections 1 to 4 is required have to demonstrate at an interval of not more than five years after acquiring the qualification that they have completed an appropriate refresher training.
- (6) The proficiencies referred to in subsections 1 to 4 may also be acquired by completing an approved course of training. The provider shall confirm the proficiencies by issuing evidence of qualification.

Part 7 **Maintenance of competency and proficiency**

Section 52

General requirements for the revalidation of certificates

- (1) A certificate issued for a fixed period can, upon request, be revalidated. A new certificate shall be issued for purposes of revalidation. The revalidation of certificates presupposes that candidates have furnished evidence of their identity and personal aptitude in accordance with Section 7 as well as of a valid certificate of proficiency in accordance with Section 44. Evidence in accordance with Section 44 shall not be required for the revalidation of a certificate of competency for GMDSS radio operators or a certificate of proficiency for service on ships operating in polar waters.
- (2) This part does not apply to:

1. certificates of competency for navigational service on fishing vessels and engine operators;
2. certificates of proficiency for navigational, marine engineering and electro-technical service and in ship operations plus ship security.

Section 53

Revalidation of certificates of competency

(1) For revalidation of their certificate of competency, masters and officers must demonstrate their continued competence by means of:

1. seagoing service, performing functions, irrespective of the capacity they served in, appropriate to the certificate to be revalidated, for a period of at least:
 - a) twelve months in total during the preceding five years; or
 - b) three months in total during the preceding six months immediately prior to the application for revalidation; or
 - c) one-and-a-half months during the preceding five years and, in addition, the performance of approved activities for at least twelve months during the preceding five years; or
2. seagoing service of not less than three months, either:
 - a) as a crew member carried exclusively for training purposes and performing functions appropriate to the certificate to be revalidated; or
 - b) immediately prior to taking up the rank for which the certificate to be revalidated is valid, in a lower officer rank than permitted by the highest power of the certificate of competency submitted for revalidation; or
3. having successfully attended an approved course of training in accordance with section A-I/11, paragraph 1.4 of the STCW Code.

Seagoing service in accordance with paras. 1 and 2 of the first sentence shall be demonstrated by means of a certificate of competency that is valid for the functions performed.

(2) For revalidation of their certificate of competency, GMDSS radio operators must demonstrate their continued competence by means of:

1. seagoing service within the meaning of para.1 or 2(a) of the first sentence of subsection 1;
2. having successfully attended an approved course of training in accordance with section A-I/11, paragraph 1.4 of the STCW Code; or
3. passing an examination for maritime mobile service in accordance with Annex 4, which shall, upon request, be conducted by the Federal Agency.

In the case referred to in para. 1(c) of the first sentence of subsection 1, the one-and-a-half months may be waived depending on the approved activity or demonstrated during the twelve months in which the approved activity is performed. The second sentence of subsection 1 shall apply *mutatis mutandis*.

(3) To enable them to complete the seagoing service required by para. 2 of the first sentence of subsection 1, the Federal Agency may, upon request, issue a certificate of competency in the lower rank, taking the other requirements into account.

(4) If certificates of competency include powers of certificates of proficiency that require revalidation in accordance with Section 54, the revalidation of the latter shall be a prerequisite for revalidation in accordance with subsection 1.

(5) Section 5(2) shall be applied mutatis mutandis to the revalidation of certificates of competency for nautical service. Notwithstanding the first sentence, possession of a VHF radio operator's certificate in accordance with Annex 3 of the Ship Safety Regulations shall suffice for the revalidation of certificates of competency for navigation service on domestic voyages in order to meet the requirements of Section 5(2)(1).

(6) In accordance with regulation I/11, paragraph 5 of the Annex to the STCW Convention, holders of a certificate of competency issued under Section 29(1) and (2) must demonstrate that they have sufficient competence for the operation of ECDIS systems by having completed an approved course of training if the certificate of competency as officer in charge of the navigational watch (NWO) was first issued before 1 January 2006 or the certificate of competency (NWO 500) was first issued before 1 January 2015. In particular, this shall include training on an ECDIS simulator that meets the standards set out in section A-I/12 of the STCW Code. If this competence is not demonstrated, the certificate of competency shall be issued with a restriction in accordance with Section 9(1).

(7) In accordance with regulation I/11, paragraph 5 of the Annex to the STCW Convention, holders of a certificate of competency issued under Section 29(2) must demonstrate that they have sufficient competence for the operation of ARPA systems by having completed an approved course of training if the certificate of competency (NWO 500) was first issued before 1 January 2015. In particular, this shall include training on an ARPA simulator that meets the standards set out in section A-I/12 of the STCW Code. If this competence is not demonstrated, the certificate of competency shall be issued with a restriction in accordance with Section 9(1).

Section 54

Revalidation of certificates of proficiency

(1) To maintain their proficiency, holders of a certificate of proficiency in ship safety must, at intervals not exceeding five years, demonstrate that they continue to meet the requirements of the corresponding sections of the STCW Code by completing one or more approved courses of training and by furnishing evidence of appropriate qualifications. The Berufsgenossenschaft may, when granting approval, take account of advanced training courses on board and relevant professional experience to the extent permitted by sections A-VI/1, A-VI/2 and A-VI/3 of the STCW Code.

(2) The evidence required by subsection 1 shall be furnished by submitting evidence of qualification that certifies that the holder has attended one or more approved courses of training. Course providers shall ensure that the requirements of the STCW Convention are met. The course providers shall certify the proficiencies by issuing evidence of qualification (one or more documents). The required maintenance of the proficiency in basic safety training and the operation of survival craft and rescue boats may be demonstrated by passing the final examination as a ship mechanic. The proficiencies shall be confirmed by the Federal Agency by issuing a certificate of proficiency as a ship mechanic.

(3) To revalidate their certificate of proficiency, holders of certificates of proficiency for service on tankers shall, if they obtained their certificate of proficiency more than five years previously, demonstrate that they:

1. have completed an approved course of training during the preceding five years;
or
2. have had seagoing service of at least three months during the preceding five years during which they exercised powers appropriate to the certificate of proficiency.

(4) To revalidate their certificate of proficiency, holders of certificates of proficiency for service on ships subject to the IGF Code shall, if they obtained their certificate of proficiency more than five years previously, demonstrate that they:

1. have completed an approved course of training during the preceding five years;
or

2. have had seagoing service of at least three months during the preceding five years during which they exercised powers appropriate to the certificate of proficiency.

Section 50a(2)(2) and (5)(2)(b) and (c) shall apply mutatis mutandis.

(5) To revalidate their certificate of proficiency, holders of certificates of proficiency for service on ships operating in polar waters shall, if they obtained their certificate of proficiency more than five years previously, demonstrate that they have:

1. completed an approved course of training during the preceding five years; or
2. seagoing service of not less than two months during the preceding five years in the deck department, at the management level or performing watchkeeping duties at the operational level during which they exercised powers appropriate to the certificate of proficiency.

Section 55 (repealed)

Part 8

Withdrawal, suspension and seizure of certificates of competency

Section 56

Withdrawal of certificates of competency

- (1) A certificate of competency shall be withdrawn if the holder is unreliable within the meaning of Section 7 or unfit for service at sea.
- (2) In the cases referred to in subsection 1, the Federal Agency may impose time limits and conditions for the issue of a new certificate of competency of a lower, equivalent or higher order.
- (3) The shipping police authorities shall immediately notify the Federal Agency of any facts that it requires for checking whether the conditions for a withdrawal have been met.
- (4) The permit on which the certificate of competency is based shall expire upon withdrawal. The Federal Agency may order that, after withdrawal, the certificate of competency shall be immediately surrendered to the Federal Agency. The second sentence shall also apply if instructions have been issued for the immediate execution of the withdrawal.
- (5) In the case of a foreign certificate of competency, the effect of withdrawal shall be to deprive the holder of the right to use their certificate of competency in Germany. The second to fourth sentence of subsection 4 shall apply mutatis mutandis, with the proviso that the certificate of competency shall be submitted to the Federal Agency so that the order referred to in the first sentence can be stored on the index of seafarers' competencies and proficiencies for the duration of the order.
- (6) The holder and the competent agency that issued the foreign certificate of competency shall be informed immediately in writing that it has been withdrawn or that the holder is no longer entitled to sail in accordance with subsection 5.
- (7) Subsections 1 to 6 shall apply mutatis mutandis to the withdrawal of endorsements recognizing foreign certificates of competency.

Section 57

Suspension of certificates of competency

- (1) The Federal Agency may, for a specific period of time, order that certificates of competency be suspended if the holders do not yet meet the conditions for withdrawal but there are doubts as to their reliability. If these doubts are dispelled before the end of ordered period, the order shall be lifted. During the period for which the suspension of the certificate of competency has been ordered, the holder may not make use of the permit on which the certificate of competency is based.
- (2) Doubts as to their reliability shall, as a rule, be deemed to exist if the holder of a certificate of competency, as a result of being under the influence of alcoholic beverages or other intoxicating substances in shipping traffic, was not or is not able to operate a ship

safely or, as a member of the ship's crew, to perform other activities on the bridge or in the deck or engine department.

(3) In individual cases where there are good reasons for doing so, certain types of ship or certain types of waterway navigable by sea-going ships may be excluded from the suspension of a certificate of competency.

(4) Holders of a certificate of competency within the meaning of these Regulations shall surrender the certificate to the Federal Agency for official safekeeping no later than the time at which the order becomes enforceable. Holders of another certificate of competency shall surrender it to the Federal Agency no later than the time at which the order becomes enforceable so that it can be endorsed with the order to suspend the certificate of competency. After expiry of the period of suspension imposed, or in the event of the order being lifted before it expires, this shall be indicated on the certificate of competency, and the certificate shall be returned to the holder or a person identified by a written power of attorney.

(5) If an endorsement recognizing a foreign certificate of competency has been issued, the first sentence of subsection 4 shall apply mutatis mutandis.

Section 58 Enforcement

The Federal Agency may, if the holder of the certificate so requests, order that the withdrawal or suspension commence at a later date. The later date must not be more than four weeks after the date originally ordered.

Section 59 Temporary seizure of certificates of competency

(1) If there are cogent reasons for assuming that a certificate of competency will be withdrawn or suspended, the temporary seizure of the certificate of competency may be ordered.

(2) A temporarily seized certificate of competency shall be surrendered to the Federal Agency immediately, stating the reasons.

(3) As soon as it has received the information that an order has been issued for the seizure of a certificate of competency, the Federal Agency shall decide whether the certificate is to be suspended or withdrawn. The temporary seizure shall be lifted and the certificate of competency returned to the holder or an authorized person if the reason for the order no longer applies or if the Federal Agency does not withdraw or suspend the certificate of competency.

(4) If an endorsement recognizing a foreign certificate of competency has been issued, subsections 1 to 3 shall apply mutatis mutandis.

Section 60 Enforcement assistance

The Federal Agency shall avail itself of the assistance of the federal state police forces, including the river police, of the Federal Police and of the customs authorities in accordance with the agreements between the Federal Government and the federal states on the exercise of river police enforcement duties, the supplementary agreement to the agreement on the exercise of river police enforcement duties concluded between the Federal Government and the federal coastal states, and the Regulations on the Assignment of Maritime Shipping Duties of 23 June 1982 (Federal Law Gazette I, p. 733).

Section 61 Relationship to other legislation

Sections 56 to 59 shall be without prejudice to the responsibilities and powers set out in the Maritime Safety Investigation Act, the Sea Fisheries Act and other legislation governing the withdrawal of entitlements, the imposition of restrictions on entitlements or the seizure and confiscation of the appropriate documents.

Part 9
Evidence of professional activity in maritime shipping

Section 62
Evidence of professional activity in maritime shipping (seafarer's identification document)

(1) Seafarers may, upon request and in accordance with subsections 2 and 3, be issued documentary evidence of professional activity in maritime shipping in the form of a "seafarer's identification document". This document shall only be valid in conjunction with a valid passport or identity card and shall not be a replacement passport or an official identity card. The document may additionally bear the title "seafarer's card".

(2) The document referred to in subsection 1 may be issued to:

1. the holder of a valid certificate in accordance with these Regulations;
2. any other crew member on a commercial vessel flying the flag of the Federal Republic of Germany;
3. technical college or university students who study at training institutions established under federal state law and undergo practical training and seagoing service on a ship for this purpose;
4. students who are, upon arrangement by the Association of German Shipowners, given an insight into the work of the seafaring professions during the school holidays, without these persons working on board;
5. German nationals who are in possession of a valid foreign certificate;
6. trainee ship mechanics.

(3) The document referred to in subsection 1 shall be valid for ten years, or for one year in the case of subsection 2(4), and shall contain a passport photograph and the following particulars:

1. surname and first name;
2. date and place of birth;
3. nationality;
4. card number;
5. date of issue and period of validity; and
6. issuing authority.

The terms in the first sentence may additionally be used in an English translation.

Part 10
Data protection

Section 63
Use of personal data

(1) The administrative authorities responsible in accordance with these Regulations shall, within the scope of their respective areas of responsibility, be authorized to collect, store and use personal data necessary for the purpose of checking whether the conditions for obtaining or revalidating certificates have been met. Upon completion of the check referred to in the first sentence, these data shall be deleted immediately unless they are stored on the Index of Seafarers' Competencies under Section 9f of the Maritime Shipping (Federal Competences) Act (SeeAufgG) or longer retention periods exist under other legislation.

(2) The Federal Agency shall immediately enter the information regarding the withdrawal or suspension of a certificate of competency, including the time limits and conditions set out in Sections 56 and 57, on the Index of Seafarers' Competencies. The data referred to in the first sentence shall be deleted immediately after one of the measures referred to in the first sentence has ended.

(3) Subsection 1 also applies to the providers of approved training courses and, after the transmission in accordance with Section 17(3), also to the approval body, with the proviso that the personal data of every trainee on the record of attendees pursuant to Section 17 shall be deleted immediately six years after the trainee has successfully completed the course, using automated deletion in the case of electronic storage, unless longer retention periods exist under other legislation.

Part 11

Final provisions

Section 64

Transitional provisions

(1) Metalworking or electrical engineering professions that were approved before [insert day on which these Regulations entered into force] shall be deemed to satisfy the requirements to be met by metalwork training set out in Annex 6.

(2) Where this statutory instrument limits the period of validity of certificates of competency and certificates of proficiency, these time limits shall, when these Regulations enter into force, also apply to relevant certificates issued under the provisions applicable hitherto.

(3) Holders of a certificate of competency as skipper (NSF) as well as holders of a pleasure craft inshore skipper's licence who are in possession of a valid certificate of fitness for service at sea in the deck department as well as a restricted radio operator's certificate (SRC) shall be deemed qualified within the meaning of Section 30(6) until the end of 31 December 2023.

(4) Certificates of proficiency attesting to a basic training or advanced training for service on ships subject to the IGF Code issued prior to the entry into force of the First Regulations amending the Seafarers' Competencies and Proficiencies Regulations shall be valid for a maximum of five years after issue.

Section 65

Amendments to the Regulations governing the fees charged for administrative acts of the Federal Maritime and Hydrographic Agency

Section 66

Entry into force, termination

(1) These Regulations shall enter into force on 1 June 2014.

(2) At the same time, the following shall cease to have effect:

1. the Officer Training Regulations in the version promulgated on 15 January 1992 (Federal Law Gazette I, pp. 22, 227), as amended by Article 29(5) of the Act of 25 July 2013 (Federal Law Gazette I, p. 2749);

2. the Shipping Office Regulations of 21 October 1981 (Federal Law Gazette I, p. 1146), as amended by Article 4 of the Regulations of 27 October 2006 (Federal Law Gazette I, p. 2403).

Annex 1

(to Section 2)

Abbreviations

The abbreviations listed below are used for certificates of competency and certificates of proficiency for seafarers engaged in navigation, maritime mobile service, engineering and electro-technical service, ship operations, safety, security and for service on special types of vessel.

1. Navigational service excluding fishing vessels

NWO Officer in charge of the navigational watch

NEO Chief mate

NK Master

NWO 500 Officer in charge of the navigational watch on near-coastal voyages (GT 500)

NK 100 Master on domestic voyages (GT 100)

NWB Navigational watch proficiency

NVM Able seafarer deck

2. Navigational service on fishing vessels

BKW Officer in charge of the navigational watch in high-sea fishing

BGW Officer in charge of the navigational watch in deep-sea fishing

BKü Skipper in coastal fishing

BK Master in high-sea fishing

BG Master in deep-sea fishing

3. Maritime mobile service

GOC General Operator's Certificate for GMDSS radio operators

ROC Restricted Operator's Certificate for GMDSS radio operators

4. Ship operations

GSM Ship mechanic

5. Marine engineering service

TWO Officer in charge of the engineering watch

TZO Second engineer officer

TLM Chief engineer officer

TSM Engine operator

TWB Engine-room watch proficiency

TVM Able seafarer engine

6. Electro-technical service

ETO Electro-technical officer

ESE Electro-technical rating

7. Ship safety and security

SGA Basic safety training

SÜB Operation of survival craft and rescue boats

SBB Operation of fast rescue boats

SLB	Control of fire-fighting operations
SRT	Basic security training on the ship
SSO	Ship security officer

8. Service on special types of vessel

ÖL-CHEM-G	Basic tanker training for oil and chemical tankers
GAS-G	Basic tanker training for liquefied gas tankers
ÖL-F	Advanced oil tanker training
CHEM-F	Advanced chemical tanker training
GAS-F	Advanced liquefied gas tanker training
IGF-G	Basic training for liquefied gas powered ships
IGF-F	Advanced training for liquefied gas powered ships
PLR-G	Basic training for ships operating in polar waters
PLR-F	Advanced training for ships operating in polar waters

**Annex 2
(to Section 5)**

Approval of courses of training in German maritime shipping law

1. Courses

The courses of training in German maritime shipping law shall be addressed to officers at the management level and masters.

2. Requirements

The courses of training referred to in paragraph 1 must provide the knowledge specified in this Annex.

3. Trainees

The courses of training referred to in paragraph (1) are to be attended by persons holding a valid certificate of competency as officer or master for navigational or engineering service which is to be recognized by the Federal Agency in accordance with these Regulations.

4. Course objectives

Courses of training for officers shall provide basic knowledge and courses of training for masters shall provide in-depth knowledge of German maritime law and, in particular, enable the trainees to apply the relevant German provisions in order to meet the responsibility assigned to them for human life, protection of the marine environment and property and maritime security.

5. Course syllabuses

The course of training should cover the following subjects:

- 5.1 Legal system of the Federal Republic of Germany
- 5.2 Responsibilities and structure of the shipping administration
- 5.3 General maritime transport law

- 5.4 Training of seafarers, certification of seafarers
- 5.5 Manning of ships
- 5.6 Maritime Labour Act and secondary legislation, including health and safety law
- 5.7 Criminal law and administrative offences related to maritime law
- 5.8 Civil law provisions related to maritime law
- 5.9 Public law provisions related to maritime law
- 5.10 Law relating to labour relations at the workplace
- 5.11 Social law

**Annex 3
(to Section 30)**

**Requirements for the proof of professional aptitude to be provided by candidates
wishing to obtain a certificate of competency as master (NK 100)**

The competencies required by Section 30(6)(2) must enable candidates to perform the activities listed below in paragraph 1. Taking into account the general training objectives listed in paragraph 2, the training shall cover the provision of the necessary competencies to be acquired in accordance with the learning spheres mentioned in paragraph 3.

1. Activities of masters (NK 100)

Within the scope of their powers, they shall perform the following navigational duties on small vessels:

- 1.1 navigating and manoeuvring a ship, operating and monitoring the technical equipment on the bridge, organizing and monitoring bridge and watchkeeping duties;
- 1.2 performing sea surveillance and operating the ship;
- 1.3 performing and monitoring marine radiocommunications in sea area A1;
- 1.4 planning, performing and monitoring ship operation activities in the navigational sphere;
- 1.5 assessing processes in the engine operation;
- 1.6 establishing and monitoring the seaworthiness of the ship;
- 1.7 ensuring that the ship's fire prevention, rescue and other safety equipment is complete, in working order and ready for operation;
- 1.8 performing and monitoring administrative duties;
- 1.9 assuming responsibility for the welfare of the crew;
- 1.10 managing people in the operation of the ship, planning and executing the assignment of work;
- 1.11 maintenance;
- 1.12 performing the functions assigned by acts and other legislation; and
- 1.13 performing the functions assigned by the shipowner.

2. General training objectives

Masters (NK 100) must be able to confidently apply the competencies to be acquired in the learning spheres mentioned in paragraph 3 and to assess the technical processes in the operation of the ship and how they are interlinked.

3. Competencies

Candidates wishing to obtain a certificate of competency as master (NK 100) shall demonstrate that they have the necessary competencies in the following learning spheres:

3.1 Society and communication

3.1.1 Needs-based communication

Specialized English, spoken and written

IMO Standard Marine Communication Phrases

3.1.2 Social and labour law

Social insurance

Maritime labour law

Collective bargaining

3.1.3 Health and safety on board

Health and safety law

Workplace design, work tasks, organization of work, work times, rest periods, breaks

Enforcement and implementation of health and safety measures, checks of effectiveness and integration of health and safety in operational organization

3.2 Navigation

3.2.1 Terrestrial navigation

Determination of position based on landmarks, aids to navigation and dead reckoning

Working with nautical charts

Aids to navigation and beaconage/buoyage systems

Nautical publications

Plotting coastal tracks

Course plotting

Current navigation

3.2.2 Practical navigation

Navigation within the scope of a watch

Navigation in special situations

One-man operation and watchkeeping

Track planning, execution and control using rational methods and aids

Assessment and maintenance of the ship's safety

Monitoring the technical systems and taking decisions in the event of malfunctioning

Clear, unambiguous and effective internal and external communication

3.2.3 Nautical information systems

Reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures

3.2.4 Radar navigation including ARPA

Structure and mode of operation of radar equipment as well as different display modes

Radar operation (including ARPA functionalities)

Analysis and interpretation of the information obtained

Assessment of limitations

Recognition of spurious echoes

3.2.5 Tides and currents

Tidal effects

High and low tides for a certain location

Determination of tide levels using tide tables

3.2.6 Technical navigation systems

Operating principles, limitations and operation of:

Compass systems

Heading controllers

Track controllers

Speed logs

Echo sounders

Satellite navigation systems

Automatic identification system (AIS)

3.2.7 Maritime transport law

International Regulations for Preventing Collisions at Sea, 1972, as amended (COLREG)

Traffic Regulations for Navigable Waterways

Regulations governing watchkeeping

3.2.8 Ship construction and stability

Ship components and structures

Shipyard documents, measurement and classification

Measures for ascertaining, appraising and impacting stability and trim

Stability and survivability of the damaged ship

Organization of necessary maintenance work

3.2.9 Manoeuvring

Manoeuvring and handling ships in ports, in pilotage waters and at sea, in rough weather and in ice

Turning in tight sea spaces

Consideration of suction effects when approaching/going alongside larger vessels

Berthing and unberthing, taking into account the effects of current and wind

Rope handling

Anchoring

3.2.10 Meteorology

Structure, mode of operation and reading of meteorological instruments

Information services that regularly provide reliable meteorological data

Assessment of meteorological data

Assessment of the weather situation with a view to the safety of the sea voyage

Recognition of the deterioration of the weather and derivation of measures

3.2.11 Radiocommunications

Restricted Operator's Certificate (ROC) for GMDSS radio operators

Risk prevention when handling radio equipment

Radio services in emergencies

3.3 Controlling the operation of the ship and care for persons on board

3.3.1 National law

Knowledge of and ability to apply national law

Certificates and other documents that have to be carried on board

Measures for the safe operation of the ship in accordance with national regulations (responsibilities, organization and execution)

Flag state control

Control of classification societies

Passenger registration

3.3.2 Protection of the marine environment

Marine pollution prevention requirements

Prevention of the pollution of the marine environment

Disposal of any pollutants

Documentation of the action taken

3.3.3 Emergency procedures

Emergency plans for self-rescue and rescue of others, collision and other emergencies

Emergency exercises

Assessment of ship safety

Behaviour in the event of shipping accidents

Precautionary measures for improving ship safety

Operational readiness of ship safety equipment and systems

3.3.4 Search and rescue (SAR)

International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual

Coordination of rescue measures

Search patterns in man overboard situations

Procedures for rescuing persons from the sea

3.4 Marine engineering

3.4.1 Propulsion plants up to 300 kilowatts; operation and systems monitoring

Description of plant and engineering systems

Functioning of propulsion systems and electrical installations

Recognition of system components, such as fuel filters, lubricating oil filters, air filters, oil dipsticks, stern tube seals and allocation of wear parts based on technical documentation

Understanding of operating manuals of the ship's engineering systems

Understanding of the necessary engineering documentation

Operation, control and finding as well as rectification of faults

Type plates and markings

Systems for the operation of engines, including the bilge system

Replacing and allocating wear parts as well as ordering spare parts

Checking filling levels, evaluation of consumption and derivation of measures

Performance of operations monitoring, reading of operating values and derivation of measures

Response to alarms and derivation of measures

Annex 4
(to Sections 31, 40 and 53)
Examination regulations of the Federal Agency

1. General information

To improve the readability of these examination regulations, using both male and female word forms at the same time is avoided. Nevertheless, all references to persons refer to both genders.

2. Applicability

2.1 These examination regulations shall govern examinations to determine proficiency

- 2.1.1 under section A-II/4 of the STCW Code (navigational watch proficiency)
- 2.1.2 under section A-III/4 of the STCW Code (engine-room watch proficiency) and
- 2.1.3 for maritime mobile service with regard to continuing proficiency in accordance with section A-IV/2 in conjunction with section A-I/11, paragraph 1.1.3 of the STCW Code and Section 53(2)(3) of these Regulations

within the Federal Agency's area of competence.

3. Registration for examinations

3.1 Candidates wishing to take an examination must register with the Federal Agency (examination authority), stating which examination they wish to take. A fully completed request for the issue or revalidation of the certificate being sought shall be enclosed with the registration. The examination authority must have received the registration at the latest ten days before the requested date of examination. In individual cases, this deadline may be waived, provided that the required staff and material are in place at the examination venue.

3.2 Candidates may also be registered for an examination as a group, provided that one person is named as a point of contact.

3.3 The examination authority shall decide whether the examination can take place at the requested time.

3.4 The examination authority may also reschedule an examination if there are important reasons for doing so. Candidates may request that an examination be rescheduled if there are important reasons for doing so. The request shall be submitted without delay.

4. Admission to examinations

4.1 The examination authority shall decide whether a candidate is to be admitted to an examination.

4.2 Persons who can credibly show that, with the exception of the examination being sought, they meet all the other eligibility requirements for issue or revalidation of the certificate being sought shall be admitted to examinations.

5. Contents and conduct of examinations

5.1 The subject of the examination shall be the standards of competence set out in section:

5.1.1 A-II/4 of the STCW Code (navigational watch proficiency);

5.1.2 A-III/4 of the STCW Code (engine-room watch proficiency); or

5.1.3 A-IV/2 of the STCW Code (GMDSS radio operators). The requirements regarding the standards set out in Table A-IV/2 of the STCW Code shall apply mutatis mutandis to the VHF radio operator's certificate, the Restricted Operator's Certificate I and II and the General Operator's Certificate.

5.2 The date, time and venue of the examination shall be set by the examination authority and communicated to the candidates or, in the case of para. 3.2 of this Annex, to the point of contact.

5.3 Before the start of the examinations, candidates must prove their identity by presenting an identity card or passport.

5.4 If candidates withdraw during the examination for reasons that are other than cogent, they shall be deemed not to have passed the examination.

5.5 If candidates arrive late for the scheduled examination, this shall reduce the time available to them for the examination and may, under certain circumstances, also make it impossible to carry out the requested examination, in particular in the case of group registrations or if other candidates wish to make use of the subsequent appointment time slot.

5.6 Unauthorized aids, such as mobile phones, books, pocket calculators or the like, or the help of third parties must not be used during the examination. Before the start of the examination, the candidates shall be informed of the consequences of attempted cheating.

5.7 The instructions of the examiner shall be complied with. The examiner shall be entitled to exclude candidates from the ongoing examination if they attempt to cheat and do not comply with instructions. The examiner shall only provide assistance with regard to the handling of the workstation and the examination sheets. Questions regarding the content of the examination shall not be answered.

5.8 Before the start of the examination, the examiner shall explain to the candidates how the examination is to be conducted and familiarize them with the simulator, if one is used in the examination. The familiarization is not part of the examination and normally does not take longer than 15 minutes. The examination shall take no longer than 30 minutes for each candidate. The examination paper consists of a selection of questions or simulation exercises that are to be answered or completed in the relevant field of examination in accordance with 5.1 and that are individually compiled for the candidate for the respective examination.

5.9 Some parts of the examination are to be completed in writing. After completion of the respective part of the examination, the corresponding documents shall be handed in to the examiner.

5.10 A record shall be made of the examination.

5.11 The examination authority may allow persons who demonstrate a justified interest to be present during the examination.

6. Results of examinations

6.1 The examination authority shall decide on the result of the examination.

6.2 Candidates shall be deemed to have passed the examination if they have demonstrated, within the time allowed, skills and knowledge regarding all the subjects of the examination, i.e. that they have met the criteria listed in the tables applicable in accordance with para. 5.1 for the evaluation of the competencies and proficiencies to be examined in any given case.

6.3 After full completion of the examination, the results shall be communicated to the candidates orally and included in the record of the examination, in which the examiner shall, moreover, document the subject matter of the examination, its course, his or her initials and potential irregularities.

The results are communicated as “passed” or “not passed”.

6.4 The result “not passed” is communicated to the candidate if all admissible examinations or attempts have been exhausted without achieving a result of at least 80%.

7. Resits

7.1 Candidates who have not passed an examination may resit the examination. The resit shall comprise the entire examination and may be held at the earliest five working days and at the latest six months after the date of the examination that was not passed.

7.2 Candidates who fail a resit twice shall, before they re-register for the examination, demonstrate that they have:

7.2.1 seagoing service in accordance with Section 31(1)(a) of at least two months for navigational watch proficiency;

7.2.2 seagoing service in accordance with Section 40(1)(a) of at least two months for engine-room watch proficiency.

8. Fees

8.1 After attendance of an examination or a resit, a notification of fees stating the examination fee in accordance with the consecutive number 2002 of the Annex to section 1(2) of the Regulations governing the fees charged for administrative acts of the Federal Maritime and Hydrographic Agency is issued irrespective of the result of the examination.

9. Violations of the examination regulations, attempted cheating

9.1 If it is determined that candidates do not comply with the examination procedures laid down in the examination regulations during the examination, the examination may be considered as “not passed” as a whole.

9.2 Candidates who cheat or attempt to cheat may be excluded, from that point in time, from any further examinations for a period of at least six months.

9.3 In particular communicating with other candidates in the examination room, taking along annexes to the examination sheets and sheets with notes from the examination room as well as bringing along inadmissible work equipment and devices into the examination room shall be considered attempted cheating or cheating. This includes, in particular, any kinds of electronic devices (e. g. mobile phones, tablets and smartwatches) and books as well as any types of notes or anything similar.

Annex 5 (to Section 34)

Requirements for the proof of professional aptitude to be provided by candidates wishing to obtain certificates of competency for navigational service on fishing vessels

The knowledge and skills required by paragraph 2 of the first sentence of Section 34(1) and Section 34(2) must enable candidates to perform the activities listed below in paragraph 1. Taking into account the general training objectives listed in paragraph 2, the training shall cover the provision of the necessary knowledge and skills in the fields mentioned in paragraph 3.

1. Activities of officers and masters with certificates of competency issued in accordance with Section 33

Within the scope of their powers, officers and masters shall perform the following navigational duties on fishing vessels:

1.1 navigating and manoeuvring a ship, operating and monitoring the technical equipment on the bridge, organizing and monitoring bridge and watchkeeping duties;

1.2 performing sea surveillance and operating the ship;

- 1.3 performing and monitoring marine radiocommunications;
- 1.4 planning, performing and monitoring ship operation activities in the navigational sphere and during fishing;
- 1.5 assessing processes in the engine operation;
- 1.6 establishing and monitoring the seaworthiness of the ship;
- 1.7 ensuring that the ship's fire prevention, rescue and other safety equipment is complete, in working order and ready for operation;
- 1.8 preparing the ship for the catch;
- 1.9 caring for the catch during the voyage and in port;
- 1.10 performing and monitoring administrative duties;
- 1.11 assuming responsibility for the welfare of the crew;
- 1.12 managing people in the operation of the ship, planning and executing the assignment of work and on-board training;
- 1.13 maintenance;
- 1.14 performing the functions assigned by acts and other legislation; and
- 1.15 performing the functions assigned by the shipowner.

2. General training objectives

Officers in charge of the navigational watch (BKW) and skippers (BKü) are to be able to confidently apply the knowledge and skills in the fields listed in paragraph 3. Officers in charge of the navigational watch (BGW) are to be able to confidently apply the knowledge and skills in the fields listed in paragraph 3 and to assess the technical processes in the operation of the ship and how they are interlinked.

3. Fields of knowledge and skill

Candidates wishing to obtain a certificate of proficiency as officer in charge of the navigational watch (BGW) or (BKW) or as skipper (BKü) shall demonstrate that they have the necessary knowledge and skills in the following fields:

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
3.1	Navigation			
3.1.1	Terrestrial navigation			
	Course plotting			
	Base lines and ships' positions and dead reckoning			
	Rhumb-line and great-circle navigation		X	X
	Current navigation			
	Nautical publications			
	Working with nautical charts, aids to navigation and beaconage/buoyage systems			
	Compass checking procedures			
	Fundamentals of the tides			

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
3.1.2	Celestial navigation			X
	Base lines and ships' positions			
	Orientation using celestial bodies			
	Compass checking procedures			
3.1.3	Technical navigation			
	Sounders and speed logs, operation, structure and mode of operation			
	Fundamentals of hydroacoustics, sound and sound propagation in the water			
	Basic underwater detection procedures			X
	Echo-sounders, sonars, net sounders, catch sensors, structure, mode of operation, operation and interpretation of sounding images			X
	Interpretation of the results of sounders and speed logs			
	Compass systems, operation, structure and mode of operation			
	Geomagnetism and ship's magnetism, making allowance for errors			
	Satellite navigation procedures			
	Radar systems, structure, mode of operation and operation			
	Radar navigation and plotting procedures, ARPA systems			
	ECDIS, structure, mode of operation and operation			X
	Bridgeteam management			X
	Automatic pilot systems, operation, structure and mode of operation			
3.2	Maritime shipping law			
3.2.1	Public shipping law and maritime labour law			
	Provisions governing the responsibilities of the Federal Government in the field of maritime shipping			
	Flag law			X
	Maritime Safety Investigation Act			
	Maritime Labour act and the statutory instruments enacted on the basis of this Act			

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
	Ship Safety Act, Ship Safety Regulations and environmental protection			
	SOLAS			X
	International and national provisions for the protection of the seas (MARPOL)			
	International and national traffic rules and regulations (COLREG)			
	Fisheries legislation			
	International law of the sea			X
	Provisions governing the maintaining of ships' and catch logs and oil record books; electronic catch log book			
	Shipping Register Regulations			X
	Consular, passport and foreigners law			X
	Beach regulations			
	Official documents required to be carried on board ships			
	Provisions governing occupational health and safety and accident prevention			
	The bodies responsible for ship safety and occupational health and safety and their main functions			X
	Social insurance law, Unfair Dismissal Protection Act, Act governing labour relations at the workplace collective bargaining law			X
3.3	Seamanship			
3.3.1	Safety technology			
	Fire safety, fire fighting			
	Rescue of persons, ship and cargo, behaviour in the event of accidents			
	Survival of persons in distress, safety service			
	Maintenance of the safety equipment			
3.3.2	Cargo technologies and fishing techniques			
	Structure, mode of operation and handling of pelagic trawls, bottom trawls and longline fishing			
	Calculations at the fishing gear, nets and net sections, cutting rhythm, setting of net sections,			

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
	tapering section and selvages			
	Trawl doors, structure, mode of operation, handling, setting and calculation			
	Maintenance and handling of sweep lines on board			
	Cargoworthiness and seaworthiness			
	Cargo handling equipment, cargo space equipment and ballast distribution			
	Deadweight capacity and workability of the ship			
3.3.3	Design and construction of the ship			
	Ship components, ship construction and structural members of a ship			X
	Fish processing systems			X
	Shipyards documents, freeboard, measurement and classification			
	Supervising construction and repair			X
3.3.4	Stability and trim of the ship			
	Measures for ascertaining, appraising and impacting stability and trim			
	Influences on stability			X
	Stability and survivability of the damaged ship			X
3.3.5	Manoeuvring			
	Manoeuvring and handling ships in ports, in pilotage waters and at sea, in rough weather, in ice and while putting into the water, trawling and lifting the fishing gear			
	Structure and mode of operation of control systems			X
	Manoeuvring characteristics, manoeuvring attempts and manoeuvring documents			
	Anchoring and towing manoeuvres			
	Search and rescue as well as assistance measures			
	Safely guiding the fishing gear across the seabed			X
3.4	Marine engineering			
	Prime movers and driven machines			X
	Apparatus and containers, structure, mode of operation and employment			
	Reading technical drawings			
	Shaft line, propellers and steering gear; structure and			X

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
	mode of operation			
	Power distribution, fundamentals of ship automation			X
	Hydraulics systems			X
	Propulsion plants up to 300 kilowatts; operation and systems monitoring	X	X	
3.5	Meteorology and oceanography			
	Fundamentals of meteorology and oceanography			
	Processing meteorological and oceanographic information			
	Meteorological instruments, reading, structure and mode of operation			X
	Weather situations and weather developments			
	Typical weather situations, climates			
3.6	Fisheries biology and hygiene of foodstuffs			
	Marine habitat			
	Types of commercially harvested fish			
	Sustainable fishing			
	Regulation on the hygiene of foodstuffs, HACCP system			
	Post-mortem changes, rigor mortis			
	Spoilage of fish, rate of spoilage and effect of temperature			
	Assessment of quality of the raw product caught; "Karlsruher Schema" (assessment system for the quality of foodstuffs), Quality Index Method			
	Preservation methods at sea; chilling and freezing			
3.7	(Radio)communications			
	Communications using the International Code of Signals			X
	General Operator's Certificate (GOC)			
	Restricted Operator's Certificate (ROC)			
3.8	Medical treatment of injured persons and illnesses			
	Diagnosis and treatment			X
	Fundamentals of maritime medicine			
	Anatomy			X
	Physiology, including nutritional, occupational and climatic physiology			X

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
	Onboard medical equipment, use of drugs and medicines			X
	Maritime Medicine Regulations			X
	Medical consultation by radio		X	
	Injection techniques, bandaging, nursing and wound treatment			X
	Diseases of and injuries to the throat, nose, ears, eyes and skin			X
	Internal and infectious diseases, vaccinations			X
	Neurological disorders and mental illnesses, problems of addiction			X
	Treatment in emergencies and after accidents (cuts, bone fractures, etc.)			X
	Poisoning			X
	Medical problems of persons in distress			
	Tropical diseases		X	X
	Accident reports			X
	Advanced first-aid course	X	X	
3.9	Personnel management			X
	Social behaviour			
	Personnel management			
	Duties of superiors			
	Management tools and management style			
	Group problems			
	Staff appraisal			
	On board training and instruction			
	Conflict management			
3.10	Business administration			X
	Operation and structure of shipping companies			
	Competitiveness in maritime shipping			
	Pricing at seafish markets (only general information)			
	International and national fisheries policy			
	Risks and insurance in maritime shipping, fishing			
	Costs and services of shipping companies			
3.11	English			
	Specialized English			
	Standard Marine Navigational Vocabulary			X

	Fields	Not required for BGW	Not required for BKW	Not required for BKü
	Sea protests and reports			X
	Standard fisheries vocabulary (fish species, fishing gear, parts of the fishing gear, fishing areas and fisheries legislation)			X

Annex 6
(to Sections 39, 40)
Metalwork training requirements

A course of training in metalwork must provide at least the following knowledge, understanding and proficiency:

Metalwork training in a training workshop or inter-company training institution

1. Planning and preparing operational processes, checking/assessing the outcome

- 1.1 Determining the work steps (from performance of work to quality control)
- 1.2 Assessing needed parts and work equipment
- 1.3 Selecting testing and measuring tools to check the outcome of the work
- 1.4 Preparing bar stock, workpieces, clamping devices, tools, testing and measuring instruments and other aids
- 1.5 Setting up the workplace
- 1.6 Checking the outcome of the work and assessing deviations from the desired dimensions

2. Reading, applying and preparing technical documentation

- 2.1 Reading, understanding and applying drawings of parts, groups and exploded-view drawings as well as technical documentation and operating instructions
- 2.2 Preparing sketches
- 2.3 Applying standards and tolerances

3. Distinguishing, allocating and using materials, auxiliaries and supplies

- 3.1 Distinguishing material properties of ferrous metals, non-ferrous metals, plastics and natural materials
- 3.2 Selecting materials, taking into account their properties
- 3.3 Selecting the processing method on the basis of the intended use
- 3.4 Using the technical names of tools (hammers, marking-out tools, chisels, saws, files, pliers, cutters, screwdrivers, wrenches as well as testing instruments)
- 3.5 Distinguishing, allocating and selecting different supplies and auxiliaries based on their intended use

4. Testing and measuring

- 4.1 Selecting testing and measuring instruments based on their intended use

- 4.2 Measuring lengths with graduated scales, vernier callipers, micrometre screw gauges, taking into account systematic and accidental measuring errors
- 4.3 Measuring angles using angle gauges and verification using fixed angles
- 4.5 Checking the flatness of surfaces with rulers and angles using the light-gap method
- 4.6 Checking the geometrical accuracy with radius gauges
- 4.7 Checking the dimensional accuracy with fixed-type and adjustable gauges
- 4.8 Checking the surface for wear and damage
- 4.9 Explaining limit dimensions, tolerances, functions and material characteristics of joined components
- 4.10 Composing measurement and test records
- 5. Scribing, centre punching and marking**
- 5.1 Citing the working rules for scribing and centre punching
- 5.2 Scribing workpieces, taking into account the properties and surface of the material
- 5.3 Centre punching for drilling as well as punching checkpoints and measuring points
- 5.4 Marking workpieces and components
- 6. Aligning and clamping tools and workpieces**
- 6.1 Selecting clamping devices depending on size, shape, material as well as working on workpieces or components and their securing
- 6.2 Aligning and clamping workpieces or components, taking into account workpiece strength and surface protection
- 6.3 Aligning and clamping tools
- 7. Manual machining**
- 7.1 Selecting tools depending on material, shape and surface quality of the workpiece
- 7.2 Filing
 - 7.2.1 Naming different surfaces (flat, angular and parallel, curved and complex shapes)
 - 7.2.2 Describing types of files and their structure
 - 7.2.3 Describing the arrangement of the teeth and the cut types (single cut files, rasps, cross cut files)
 - 7.2.4 Describing cut classifications (middle cut and second cut file grades)
 - 7.2.5 Citing the working rules for filing and selecting files to working technique and maintenance of files
 - 7.2.6 Filing surfaces and shapes of workpieces made from steel and non-ferrous metals (flat, angular, parallel to size) as well as fits

- 7.3 Sawing
 - 7.3.1 Citing the working rules for sawing by hand
 - 7.3.2 Outlining the criteria for hand saw selection (hacksaws, flush-cutting backsaws, electric hand saws, crosscut saws)
 - 7.3.3 Describing the structure of saws (blade shapes, tooth spacing)
 - 7.3.4 Identifying the cutting angles and the number of teeth to be taken into account (depending on the material)
 - 7.3.5 Sawing sheet metal, pipes and sections made from ferrous and non-ferrous metals, plastics and wood based on marking
- 7.4 Cutting (threads)
 - 7.4.1 Comparing thread types (distinction based on thread shape)
 - 7.4.2 Naming tools for cutting
 - 7.4.3 Describing the use of serial hand taps (set of 3 cutters and identification code)
 - 7.4.4 Internal thread tapping and external thread cutting taking into account material properties and cooling lubricants
 - 7.4.5 Cutting pipe threads
 - 7.4.6 Listing the work steps for removing broken taps
- 7.5 Off-hand grinding
 - 7.5.1 Describing grinding with abrasive paper, abrasive cloth, in particular selection of grain sizes
 - 7.5.2 Describing lapping of components with lapping abrasive
- 8. Mechanical machining**
 - 8.1 Selecting tools, taking into account processes, materials and cutting tool geometry
 - 8.2 Determining and setting the rotation frequency, feed, and cutting depth of machine tools for drilling with the help of tables and diagrams
 - 8.3 Ready machine tools for operation
 - 8.4 Drilling
 - 8.4.1 Distinguishing drilling tools (twist/spiral drills and their structure, cutting geometry of drills)
 - 8.4.2 Distinguishing reamers (hand and machine reamer designs)
 - 8.4.3 Describing counterboring and countersinking (countersinking and counterboring tools)
 - 8.4.4 Citing the working rules for drilling
 - 8.4.5 Explaining the selection and sharpening of twist/spirals drill bits
 - 8.4.6 Explaining the chucking of drills (operational readiness)
 - 8.4.7 Explaining the release and installation of drill chucks and morse taper drill bits

8.4.8 Drilling holes into workpieces made from ferrous and non-ferrous metals with a positional tolerance of up to ± 0.2 mm, taking into account cooling lubricants, using drilling machines and lathes with various tools, by way of drilling into solid material, boring, centring and countersinking

8.4.9 Drilling holes into workpieces made from ferrous metals up to an IT 7 dimensional accuracy and a surface roughness Rz between 4 and 10 μm , taking into account the cooling lubricants, by way of round reaming

8.5 Turning

8.5.1 Describing the operating principle of lathes and their sub-assemblies

8.5.2 Explaining cutting motions, cutting depth and feed

8.5.3 Describing the different turning processes (external/internal)

8.5.4 Distinguishing tool bits (types of cutting tools) and tool holders

8.5.5 Determining the work steps for the manufacture of tools (work planning)

8.5.6 Manufacturing work pieces made from ferrous and non-ferrous metals up to a dimensional accuracy of ± 0.1 mm and a surface roughness Rz between 4 and 63 μm , taking into account cooling lubricants, using different cutting tools, by means of facing and turning

8.6 Grinding

8.6.1 Describing the operating principle of electrical bench grinding machines and the assemblies of the grinding machine

8.6.2 Describing hand grinding machines

8.6.3 Describing angle grinders

8.6.4 Distinguishing abrasives (wheels/discs and use)

8.6.5 Describing clamping devices for grinding wheels/discs

8.6.6 Explaining surface grinding/sharpening of tools, such as scribers, centre-punches, drill bits, chisels, at the grinding wheel stand

8.7 Sawing

8.7.1 Describing the operating principle and the assemblies of the power saw

8.7.2 Distinguishing power saws (horizontal and vertical band saws, hacksaws and circular saws)

8.7.3 Describing sawing processes (sawing off, sawing out and slotting)

8.7.4 Describing the structure of saws blades (blade shapes, tooth spacing, saw blade cut)

8.7.5 Selecting the cutting angles and the number of teeth to be considered (depending on the material)

8.7.6 Describing free hand cuts

8.7.7 Sawing workpieces with stationary sawing machines

9. Shearing and cutting

- 9.1 Listing names of hand shears and their use
- 9.2 Citing the working rules for using hand-lever shears
- 9.3 Cutting light gauge sheet metal using hand and hand-lever shears based on marking
- 9.4 Cutting pipes with pipe cutters
- 9.5 Cutting, machining and shearing with chisels
- 9.6 Explaining manual thermal cutting of sheet metal, pipes and sections
- 10. Forming**
- 10.1 Cold forming of sheet made from steel and non-ferrous metals by means of air rounding and rotary bending with and without fixtures in a vice
- 10.2 Cold forming of steel pipes, taking into account the wall-thickness-to-diameter ratio
- 10.3 Hot forming of sheet metal, pipes and sections
- 10.4 Bend straightening of sheet metal, pipes and sections
- 10.5 Forming workpieces by repoussé, stretching and compression
- 10.6 Straightening
- 10.7 Using benders with exchangeable rollers
- 10.8 Describing sheet forming with bending machines/bending rolls
- 10.9 Citing the working rules for straightening, bending and forming
- 10.10 Describing the changes in material properties for hardening, tempering, annealing (heat treatment of steel)
- 11. Joining (screwed, bolted, pin and press-fit joints)**
- 11.1 Checking components for the surface quality of the faying surfaces and for geometrical tolerance as well as fixing them in a position suitable for assembly
- 11.2 Joining and securing components with bolts, nuts and locking elements, taking into account the proper order and tightening torque and material combination
- 11.3 Joining with screws, bolts, pins and keys
- 11.4 Constructing bolted and pin joints
- 11.5 Constructing press-fit joints by means of pressing, keying, contraction and expansion
- 11.6 Constructing threaded pipe joints
- 11.7 Describing the types of fits
- 12. Joining (welding, soldering)**
- 12.1 Carrying out preparatory work for welding and soldering (taking into account fire safety measures)
- 12.2 Readying welding and soldering equipment for operation

- 12.3 Selecting tools, soldering filler metal and flux based on the intended use
- 12.4 Preparing workpieces and components for welding and soldering
- 12.5 Butt welding of light gauge sheet metal and steel
- 12.6 Fillet welding on sheet metal and pipes made from steel
- 12.7 Soldering of workpieces and components made from ferrous and non-ferrous metals, taking into account the surface properties of the materials and the properties of the soldering agents
- 12.8 Joining by adhesive bonding
- 12.9 Describing the types and possible applications of adhesives
- 12.10 Listing types of threadlockers (adhesive, varnish)

**Annex 6a
(to Section 42)**

Electrical manufacturing and metalwork training requirements

A course of training in electrical manufacturing and metalwork must provide at least the following knowledge, understanding and proficiency:

Metalwork training in a training workshop or inter-company training institution

1. Planning and preparing operational processes and checking/assessing the outcome

- 1.1 Determining the work steps (from performance of work to quality control)
- 1.2 Assessing needed parts and determining work equipment
- 1.3 Determining testing and measuring tools to check the work results
- 1.4 Providing bar stock, workpieces, clamping devices, tools, testing and measuring instruments and other aids
- 1.5 Setting up the workplace
- 1.6 Evaluating the outcome of the work if there are deviations from the desired dimensions

2. Reading, applying and preparing technical documentation

- 2.1 Reading and applying drawings of parts, groups and exploded-view drawings
- 2.2 Reading and applying technical documentation, in particular repair and operating instructions, usage information, manuals, parts lists, tables and diagrams
- 2.3 Preparing sketches
- 2.4 Composing measurement and test records
- 2.5 Applying standards, in particular tolerance standards
- 2.6 Handling data carriers

3. Distinguishing, allocating and using materials, auxiliaries and supplies

- 3.1 Distinguishing material properties of ferrous metals, non-ferrous metals, plastics and natural materials

3.2 Selecting materials, taking into account their properties and machining them based on their intended use

3.3 Distinguishing supplies and auxiliaries, allocating them based on their use and selecting them based on their intended application

4. Testing, measuring, gauging

4.1 Selecting testing and measuring instruments based on their intended use

4.2 Measuring lengths with graduated scales, vernier callipers, micrometre screw gauges, taking into account potential systematic and accidental measuring errors

5. Scribing, centre punching, marking

5.1 Scribing workpieces, taking into account the properties and surface of the material

5.2 Centre punching for drilling as well as punching checkpoints and measuring points

6. Aligning and clamping tools and materials

6.1 Selecting and securing clamping devices based on their size, shape, material and the machining of workpieces or components

6.2 Aligning and clamping workpieces or components, taking particular account of workpiece strength and surface protection

6.3 Aligning and clamping tools

7. Manual machining

7.1 Selecting tools based on material, shape and surface quality of the workpiece

7.2 Filing of surfaces and shapes on workpieces made from steel and non-ferrous metals

7.3 Sawing sheet metal, pipes and sections made from ferrous and non-ferrous metals based on marking

7.4 Drilling into workpieces made from ferrous and non-ferrous metals

8. Mechanical machining

8.1 Selecting tools, taking into account processes, materials and cutting geometry

8.2 Determining and setting the rotation frequency, feed, and cutting depth of machine tools for drilling operations with the help of tables and diagrams

8.3 Ready machine tools for operation

8.4 Drilling workpieces made from ferrous and non-ferrous metals, taking particular account of cooling lubricants, using drilling machines with different tools, by way of drilling into solid material, boring, centring and countersinking

8.5 Grinding tools, in particular sharpening of scribes, centre-punches, drill bits, chisels, at the grinding wheel stand

9. Cutting

9.1 Shearing of light gauge sheet metal using hand and hand-lever shears based on marking

9.2 Cutting of pipes with pipe cutters

10. Forming

10.1 Cold forming of sheet made from steel and non-ferrous metals with and without fixtures in a vice by means of air rounding and rotary bending.

11. Joining (screwed, bolted, pin and press-fit joints)

11.1 Checking components for the surface quality of the faying surfaces and for geometrical tolerance as well as fixing them in a position suitable for assembly

11.2 Joining and securing components with bolts, nuts and locking elements, taking into account the proper order and tightening torque and material combination

Electrical manufacturing in a training workshop or inter-company training institution

1. Theoretical foundations

1.1 Describing the five safety rules, the dangers posed by electric current and behaviour in the event of an accident involving electricity

1.2 Explaining the protective measures (basic protection, fault protection, additional protection)

1.3 Citing the quantities and units in electrical engineering

1.4 Describing the effects of electric current (heat, magnetic, light, chemical, physiological effects)

1.5 Describing the atomic structure and the formation of positive and negative charges

1.6 Describing the concept of voltage, the generation of voltage, the measurement of voltage

1.7 Describing the flow of electric current in conductors, gases, vacuum

2. Basic work activities

2.1 Wiring

2.2 Insulating

2.3 Soldering methods

2.4 Soldering

2.5 Establishing earth connections

3. Basic knowledge of elements and components in electrical engineering, information technology or communications technology

3.1 Describing resistance

3.2 Describing reactance

3.3 Describing batteries

3.4 Describing control circuits

3.5 Describing conductor protection

3.6 Describing alternating current technology

- 3.7 Describing three-phase current technology
- 3.8 Describing power electronics
- 3.9 Reading and drawing circuit diagrams
- 4. General knowledge of electrical measurement technology**
- 4.1 Distinguishing measuring instruments
- 4.2 Selection of measuring instruments based on the kind of values to be measured
- 4.3 Setting up measuring circuits and presenting signal information
- 4.4 Distinguishing, classifying and calculating measuring errors
- 5. Operating, programming and using calculators and programmable components**
- 5.1 Creating simple logic circuits with programmable components
- 5.2 Describing programmable logic controllers
- 5.3 Distinguishing sensors
- 6. Assembly of devices**
- 6.1 Assembling, checking, maintaining and repairing electrical engineering or information and communications technology apparatus and devices
- 7. Switchgear**
- 7.1 Demonstrating knowledge of routine operational tests and maintenance of switchboard circuit breakers
- 7.2 Routine functional testing and maintenance of switchboard circuit breakers

**Annex 7
(to Section 39)**

Requirements for the proof of professional aptitude to be provided by candidates wishing to obtain a certificate of competency as engine operator

Candidates wishing to obtain a certificate of competency as engine operator on commercial vessels with a propulsion power of less than 750 kilowatts shall demonstrate that they have adequate competencies in the following fields:

- 1. communications;
- 2. marine engineering;
- 3. maintenance;
- 4. electrical engineering, control engineering;
- 5. monitoring technical ship operation.