Australian Government
Australian Maritime Safety Authority

CONDUCT OF ORAL EXAMINATIONS

The oral examination is an important component of the final assessment for issue of STCW and NSCV certificates of competency

1. General – Deck and Engineer Officers

1.1 The purpose of the oral examination is to determine whether the candidate's knowledge and skills are sufficient for the safe and competent performance of the duties and functions of the certificate of competence (CoC) applied for.

1.2 For all grades of certificate, unless the candidate is well below standard or is exceptionally good, in which case the examination time period may be shorter, the oral examination should be of about one hour duration.

1.3 For STCW: The maximum time frame should not normally exceed 2 hours. However, oral examinations for a combined CoC (steam and motor) may take up to three hours.

1. 1 hour and 15 minutes for watchkeeper (Engine and Deck)

2. 1 hour and 15 minutes to 1 hour and 30 minutes for management level

For NSCV: The maximum time frame should not exceed 1 hour 15 minutes.

A candidate who fails an oral examination may be assessed by the same examiner or regional office on no more than three attempts. A candidate who requires a fourth attempt must first contact the regional manager.

1.4 The oral examination is an important part of the overall assessment of competence and tests the candidate's ability to communicate ideas, commands and actions, especially for safety critical and environmentally sensitive procedures and tasks.

1.5 The oral examination questions will concentrate on the practical nature of the duties the candidate is expected to perform but will include knowledge of relevant Australian legislation (i.e. Marine Orders, *Navigation Act 2012, Marine Safety (Domestic Commercial Vessel) National Law Act 2012* etc.) and the important international conventions (i.e. SOLAS, STCW, MARPOL, Loadline, MLC, etc. as relevant). The oral examination syllabi are available from the AMSA website.

1.6 Deck and engineer candidates are expected to demonstrate knowledge of the design and operation of all vessel types, and safe operation of all types of machinery, relevant to the CoC applied for. The examiner will, however, expect the candidate to show a higher level of knowledge for the vessel types and machinery, they have either sailed on or operated. Candidates must be able to demonstrate that they "know their vessels".

1.7 To answer questions candidates will, when appropriate, be expected to draw sketches which should be of a sufficient standard and detail to illustrate to the examiner the required answer. The examiner will retain all sketches or any other material produced during the examination. Candidates may also be asked to do calculations, for example, relating to practical navigation or operational stability. The examiner will retain all sketches and calculation sheets.

1.8 The standard required for a pass in the oral examination cannot be quantified as a percentage. The examiner will take into account the candidate's depth of knowledge, practical application of knowledge, attitude and confidence, and use the following as a general guide:

- any major mistake in a critical skill area will constitute a failure
- an accumulation of significant mistakes in several areas will also constitute a failure.

1.9 The candidate must demonstrate that they are sufficiently familiar with the English language to enable a full understanding of directions as to the performance of duties. In general, a candidate who has a sufficient grasp of the language to pass the AMSA approved college course and the AMSA oral examination should meet this requirement.

1.10 During the oral examination the examiner will reference preparation notes and the examination checklist and also take notes. Examiners will endeavour to do this in a manner that does not distract the candidate.

1.11 From time to time AMSA trainee examiners, or examiners, may observe an oral examination, either by being present in the room, or by video link, for the purpose of training, or a peer review of the examiner. They will take no part in the assessment of the candidate.

1.12 For NSCV: Candidates with task books will be required to produce their completed task book at the oral examination. If completion has not been signed off, the examiner (final assessor) must verify that the task book has been completed to the extent possible given the equipment, cargo or voyage pattern of the seafarer's vessel(s) and then sign in the front of the book to confirm completion.

Section 3 of the task book contains details of the vessels, their operation and equipment and can be used to assess whether the level of completion is appropriate. A minimum of 80% completion of tasks is required to qualify for a reduction in sea service. Completion should not be signed off if 80% has not been achieved.

Regardless of whether task book completion has previously been signed off by an RTO, examiners may review the contents of the candidate's task book and ask questions on items covered in the book as considered appropriate. If the examiner is not satisfied that the content of the task book is at a reasonable standard they may defer the oral examination until the deficiencies are rectified.

1.13 The checklists pick up the main topics in each syllabus. Candidates will not be questioned on all topics, however, the checklists will be used to ensure a wide and meaningful coverage of the oral examination topics with particular emphasis on operational knowledge and safety.

2. Medical Condition

2.1 If during an oral examination the examiner suspects that an applicant may have a medical problem, which could render the applicant incapable of adequately discharging the duties and responsibilities of a vessel's officer, the examiner will suspend the oral exam and seek advice from AMSA management.

3. Master and Mates Oral Examinations

3.1 For STCW the examiner will use the Oral Examination Checklist – Deck as the record of the progress of the examination.
For NSCV the examiner will use Master <80 m NC, Master <35 m NC or Mate <80 m NC Oral Examination Checklist as appropriate. AMSA1076, 1099, 1078.

3.2 The letters on the checklist designate the relative importance of each topic and indicate the level of attainment required:

a. the letter A: covers critical areas, particularly emergency situations, that affect safety of life or the vessel, and major operational functions. A highly developed level of knowledge appropriate to the grade of certificate is required.
b. the letter B: covers areas that affect safety of life, or the vessel, in less critical situations, such as effective maintenance. A developed level of knowledge appropriate to the grade of certificate is required.
c. the letter C: covers areas not covered by A and B.

3.3 For STCW: When considering "appropriate to the grade of certificate" the examiner will take into consideration the meaning and intent of "management level" and "operational level" as defined by the STCW Convention.
For NSCV: When considering "appropriate to the grade of certificate" the syllabus document relevant to the qualification should be referenced for guidance.

3.4 For all grades of deck certificate a thorough knowledge and understanding of the *International Regulations for Preventing Collisions at Sea 1972*, as amended ("Rule of the Road") is considered essential. Failure to clearly answer a question concerning Part B – Steering and Sailing Rules is considered an automatic failure. The examiner may accept a small number of errors in the other sections of the regulations provided the examiner is satisfied the error(s) is not safety critical.

3.5 The oral examination may extend to cover items in the syllabus for the relevant CoC to test a candidate's knowledge in operational and safety aspects, such as:

a. stability considerations in normal daily operations and in emergency and damaged conditions;
b. passage planning, taking into account near and distant meteorological conditions, restricted channels, port facilities, etc;
c. bridge resource management and the navigational safety management of the vessel;
d. radar plotting;
e. practical navigation; and
f. vessel operations such as cargo operations, bunkering and mooring.

3.6 The oral examination may include items from the syllabus of a lower grade certificate, particularly where a candidate appears for Master, Master <3000 GT, Master <500 GT, Chief Mate, Chief Mate <3000 GT, Master <35, Master <24, Master Inland Waters, Mate <80, without previously sitting for a lower grade certificate.

3.7 Some of the older and more traditional types of equipment are purposefully retained in the syllabi; as long as they are carried on vessels, officers should know how to use them, in particular the use of a sextant and how to correct it. Although the deviascope examination is now conducted by the colleges as a part of the AMSA approved college course, examiners may ask applicants for chief mate <3000 GT, Chief Mate, Master <3000 GT and Master certificates a few general questions about use, care and correction of the magnetic compass.

3.8 In general, examiners will only pass a candidate:

- for a watchkeeper level of certificate - if the examiner, in the position as master of a vessel, would permit the candidate to be in sole charge of a navigational watch at sea, or a cargo watch, in port;
- for a chief mate level of certificate - if the examiner, in the position as master of a vessel would permit the candidate in addition to navigational duties, to manage the cargo operations and maintenance as required in the deck department and to take over a vessel in an emergency due to the incapacity of the master, bearing in mind that STCW78 as amended, states that a Chief Mate must be capable of taking over the responsibility of the master at any time; or
- for a master level of certificate (including coxswain) - if the examiner in the position as employer, would permit the candidate to be in command of a vessel and its crew.

4. Engineer Officer Oral Examination

4.1 The objective of the oral examination is to assess the candidate's knowledge of the practical operation and managerial component of marine engineering, which includes electrical, automation and control, mechanical and naval architecture components. It is also to ascertain whether the candidate has acquired the knowledge required for safe decision-making and for the performance of the functions relevant to the certificate for which they have applied for.

4.2 During the oral examination examiners will test the candidate on those areas of knowledge and skills:

a. critical to preservation of life, the environment and property (including emergency procedures);

b. necessary for efficient operation; and

c. in the 'theoretical' subjects only to the extent necessary to test the candidate's knowledge of the safety and operational aspects appropriate to the grade and sub-grade.

4.3 The examination will cover the safety critical areas vital to the protection of personnel, machinery and the environment, paying particular attention to emergency procedures and the safe control and operation of vital machinery and equipment.

4.4 As a general indication, examination for:

a. Marine Engine Driver Grade 1 (MED1) is to cover, but not necessarily be limited to, operational, routine and emergency duties and the maintenance processes of machinery and equipment <1500kW

b. Engineer Class 3 NC (EC3) covers management, decision making function emergency procedures, and the operation and maintenance processes of machinery and equipment < 3000kW

c. Engineer Watchkeeper (EWK) is to cover, but not necessarily be limited to, operational, routine and emergency duties associated with watchkeeping at sea and in port

d. Engineer Class 2 (EC2) is to additionally cover emergency procedures, and the operation and maintenance processes of machinery and equipment. However as a person holding an EC2 certificate can work as chief engineer on vessels with a propulsion power of <3000 kW, the EC2 oral examination must also cover areas relating to management;

e. Engineer Class 1 (EC1) is to additionally cover management and decision-making functions.

4.5 All engineers must also be able to perform duties as the vessel's electrical engineer. Consequently the oral examination may cover one or more electrical components.

4.6 Engineers who hold a valid AMSA CoC as EC1, EC2 or EWK are exempt from the requirements to hold a refrigerant handling license required by the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* and associated regulations. While the MAR Maritime Training Package core units that cover refrigeration are the same for EWK and EC3 engineers who hold a CoC as EC3 are **NOT** exempt from the requirement to hold a refrigerant handling licence. The oral examination for all levels of engineering may include questions on refrigeration maintenance and the safe handling of refrigerant gases.

4.7 Questions will cover important safety matters, including fire prevention, detection and extinction, knowledge of the more serious mishaps such as burner blow backs, uptake, scavenge fires, and crankcase explosions.

4.8 Questions regarding boiler water gauge reading, manipulation and defects are compulsory for all candidates other than MED1 and lower certificates.

4.9 EWK candidates and engineer cadets will be required to produce their completed training record book at the oral examination. Examiners will review the contents of the candidate's training record book and ask questions on items covered in the book as considered appropriate. If the examiner is not satisfied that the content of the training record book is at a reasonable standard they may defer the oral examination until the deficiencies are rectified. Engineer Class 3 (NC) Task book will be acceptable as TRB if completed while attaining an EC3.

4.10 For STCW: the examiner will use the Oral Examination Checklist - Engineer.
For NSCV: the examiner will use the EC3 or MED1 Oral Examination Checklist, as appropriate. AMSA1075, 1079.

4.11 The letters on the checklists designate the relative importance of each topic and the numbers indicate the level of attainment required as follows:

a. the letter A: covers critical areas, particularly emergency situations that affect the safety of life or the vessel;

b. the letter B: covers areas that affect safety of life, or the vessel, in less critical situations, such as effective maintenance;

c. the letter C: covers areas not covered by Letters A or B;

4.12 The number 1: highly developed level of knowledge/skill required;

a. the number 2: developed level of knowledge/skill required;

b. the number 3: basic level of knowledge/skill required.

EC 3 and MED1 checklists use only the letters.

4.13 The examiner will take into consideration the meaning and intent of "management level" and "operational level" as defined by the STCW Convention in determining the level of knowledge or skill required.

4.14 In general, examiners will only pass a candidate:

- for an EC1 certificate - if the examiner, in the position as employer, would permit the candidate to be chief engineer in charge of the vessel's engine room and associated machinery spaces, and responsible for the maintenance of all machinery and associated systems;
- for an EC2 certificate - if the examiner, in the position as chief engineer of a vessel would permit the candidate in addition to engine room watch keeping duties, to manage the engine room and maintenance of machinery and to take over a vessel in an emergency due to the incapacity of the chief engineer, bearing in mind that STCW78 as amended, states that a first engineer (i.e. STCW equivalent second engineer) must be capable of taking over the responsibility of the chief engineer at any time;
- for a watchkeeper level of certificate - if the examiner, in the position as chief engineer of a vessel would permit the candidate to be in sole charge of an engine room watch at sea or in port;
- for an EC3 certificate - if the examiner, in the position as employer, would permit the candidate to be chief engineer on a vessel with an inboard engine with propulsion power < 3000kW in waters to the outer limits of the EEZ ,and be responsible for the maintenance of all machinery and associated systems;
- for a MED1 certificate - if the examiner, in the position as employer, would permit the candidate to be chief engineer on a vessel with an inboard engine with propulsion power < 1500kW in waters to the outer limits of the EEZ, and be responsible for the maintenance of all machinery and associated systems.