

**DISCUSSION OF QUALIFICATION REQUIREMENTS FOR ELECTRO-TECHNICAL
OFFICER ON VESSELS POWERED BY MAIN PROPULSION MACHINERY
OF 750 kW/1,000 HP OR MORE**

1. GENERAL. This enclosure provides guidance to qualify for an International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW) endorsement as Electro-Technical Officer on Vessels Powered by Main Propulsion Machinery of 750 kW/1,000 HP or More (ETO) as specified in Section A-III/6 of the STCW Code and 46 Code of Federal Regulations (CFR) 11.335.
2. SEA SERVICE, TRAINING, AND DEMONSTRATIONS.
 - a. In accordance with 46 CFR 11.335(a), a candidate for an endorsement as ETO must:
 - 1) Provide evidence of either:
 - i) Not less than 36 months combined workshop skills training and approved seagoing service of which not less than 30 months must be seagoing service in the engine department of vessels. Experience gained in the deck department may be creditable for up to 3 months of the service requirements; or
 - ii) Completion of an approved training program that includes a combination of workshop skill training and seagoing service of not less than 12 months, and which meets the requirements of Section A-III/6 of the STCW Code;
 - 2) Meet the standard of competence specified in Section A-III/6 of the STCW Code. This may be done by completing the assessment in Enclosure (2) or an approved alternative; and
 - 3) Satisfactorily complete approved training in:
 - i) Medical First Aid Provider;
 - ii) Basic and Advanced Fire Fighting as specified in 46 CFR 11.303;
 - iii) Proficiency in Survival Craft and Rescue Boats Other than Fast Rescue Boats;
 - iv) Onboard Computer Networking and Security;
 - v) Radio Electronics;
 - vi) Integrated Navigation Equipment;
 - vii) Ship Propulsion and Auxiliary Machinery;
 - viii) Instrumentation and Control Systems; and
 - ix) High-Voltage Power Systems.

- b. The total days of workshop skills training in paragraph (2)(a)(1)(i) of this enclosure should not exceed 180 days. Workshop skills training may include, but is not limited to, shore-based laboratories, in-port watchkeeping and/or maintenance, engine room simulator and/or internships in an appropriate field of study (shipyards, power generating station, or facilities where mechanical and electrical systems have to be operated, maintained, and managed).
 - c. For purposes of qualifying for an ETO endorsement, seagoing service is considered to be service on board a vessel that is relevant to qualification for ETO. The Coast Guard will accept service in the engine department of ocean, near-coastal, Great Lakes, or inland vessels of at least 750 kW/1,000 HP as being relevant to the qualification of ETO. Mariners may also qualify using service on vessels of less than 750 kW/1,000 HP propulsion power by providing evidence that their service included duties relevant to the ETO endorsement.
 - d. As specified in 46 CFR 11.335(b), a mariner who has served in a relevant capacity onboard a vessel may qualify for an endorsement as ETO if they provide evidence of:
 - 1) Seagoing service of not less than 12 months within the last 60 months; and
 - 2) Meeting the standards of competence specified in Section A-III/6 of the STCW Code. This may be done by providing evidence of the following:
 - i) Successful completion of the assessments in Enclosure (2) or an approved alternative;
 - ii) Completion of approved or accepted training for Basic and Advanced Firefighting and Medical First Aid Provider; and
 - iii) Holding or qualifying for an endorsement for Proficiency in Survival Craft and Rescue Boats Other Than Fast Rescue Boats or Proficiency in Survival Craft and Rescue Boats Other Than Lifeboats and Fast Rescue Boats-Limited.
- Service in a relevant capacity may include service in a position that has provided the mariner with experience in the areas identified in paragraphs (2)(a)(3)(iv) through (ix) of this enclosure.
- e. To qualify for an STCW endorsement as ETO, mariners must provide evidence of meeting the standard of competence for Basic Training (46 CFR 11.302).
 - f. As specified in 46 CFR 11.335(d), a mariner who does not hold any other national or STCW endorsements may be issued an ETO endorsement upon completion of the requirements described above without holding or qualifying for a corresponding national endorsement.
3. ASSESSMENTS. As noted above, mariners must provide evidence of meeting the standard of competence specified in Section A-III/6 of the STCW Code by completion of the assessments in Enclosure (2), or an approved equivalent alternative. Applicants may

document their assessment using Enclosure (3) or they may use any other format that shows equivalent information.

4. RENEWAL OF ENDORSEMENT. In order to renew an endorsement as ETO, an applicant must have currently valid basic training and meet the general requirements for renewal of a merchant mariner credential found in 46 CFR 10.227.