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16721 NMC Policy Letter No. 14-02 24 July 2002

From: Commanding Officer, U. S. Coast Guard National Maritime Center

To: Distribution

Subj: QUALIFICATIONS FOR DECK AND ENGINEERING RATINGS

Ref: (a) Regulations II/4 and III/4 of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW)

- (b) Title 46, Code of Federal Regulations (46 CFR), Part 12
- (c) COMDTINST M16000.8B Marine Safety Manual, Volume III
- 1. <u>PURPOSE</u>. This policy letter clarifies the requirements of references (a) and (b) as they apply to an applicant for a rating as able seaman, or as a watchstanding qualified member of the engine department (QMED) and either an STCW certification as a rating forming part of a navigational watch (RFPNW) or an engineering watch (RFPEW).

2. ACTION.

- a. RECs processing applicants for these STCW qualifications should be guided by the enclosures to this policy letter concerning the information required to be submitted as part of the application packages. The files of applicants for RFPNW or RFPEW certifications should include completed records of practical demonstrations of practical skills. These may consist of copies of the enclosures or similar records containing the same information; and
- b. Commanding officers of units with marine safety responsibilities should bring this policy letter to the attention of the maritime industry with interests in marine personnel issues and to institutions that offer U. S. Coast Guard approved training. This policy letter will be distributed by electronic means only. It is available on the World Wide Web at http://www.uscg.mil/STCW/m-policy.htm.
- 3. <u>DIRECTIVES AFFECTED</u>. Enclosure (2) to Policy letter 24-98 and Policy Letter 4-01, both issued by the U. S. Coast Guard National Maritime Center, are superseded and cancelled.

4. BACKGROUND.

a. Reference (a) contains the requirements for a deck rating to be issued an STCW certificate as a rating forming part of a navigational watch (RFPNW). Similarly, an engine rating can become qualified as a rating forming part of an engineering watch (RFPEW).

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b. Reference (b) contains the requirements for an entry level mariner in the deck department to qualify as an able seaman (unlimited, limited, or special). For entry level mariners in the engine department, the regulations provide guidance for them to advance to a rating as a qualified member of the engine department (QMED). While there are numerous QMED ratings, this policy letter only refers to the watchstanding ratings: oiler, fireman/watertender, and junior engineer. There are two additional engineering watchstanding endorsements, deck engine mechanic and engineman; however, a prerequisite to qualify for either of those ratings includes qualification for one of the first three engineering ratings. Therefore, the latter two ratings will not be addressed.

5. DISCUSSION.

- a. The nature of the duties and responsibilities performed by ratings issued under our domestic scheme are similar to the ratings issued under the STCW scheme. Because of differing requirements to qualify for the domestic ratings as compared to the STCW ratings, it may penalize mariners who require only the domestic qualifications to require them to also meet the STCW's requirements.
- b. Applicants for certification as able seaman must only meet the requirements of references (b) and (c) to be certificated under the domestic scheme and issued a merchant mariner's document (MMD). A mariner holding an MMD endorsed as able seaman (unlimited, limited, or special) may not serve in that capacity on a vessel to which the full impact of the STCW applies unless the able seaman also holds an STCW certificate endorsed as an RFPNW as set forth in enclosure (1) and as proficient in survival craft. For information about proficiency in survival craft, consult policy letters 5-01 and 8-01 at http://www.uscg.mil/STCW/m-policy.htm.
- c. An ordinary seaman assigned to either the deck department or the maintenance department who either stands navigational watches, or may be assigned to stand navigational watches, must also be qualified as a RFPNW.
- d. Applicants for certification as a watchstanding QMED must only meet the requirements of references (b) and (c) to be certificated under the domestic scheme. An applicant holding an MMD endorsed as QMED may not serve in that capacity on a vessel to which the full impact of the STCW applies unless the QMED also holds an STCW certificate endorsed as an RFPEW as set forth in enclosure (2). The requirements of enclosure (2) apply also to a wiper who is standing engine room watches, or may be assigned to stand watches as a regular member of the watch.
- e. A rating qualifying for certification under domestic regulations alone, will only be issued an MMD with appropriate endorsements as QMED or able seaman. They will not be issued an STCW certificate.

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- f. Applicants holding an MMD with a qualified rating, either as able seaman or as a watchstanding QMED, but who do not qualify for an STCW certificate may later request an STCW-95 certificate claiming that the original has been lost. The REC to which the application is made must carefully review the mariner's records to determine whether or not an STCW certificate had actually been issued to an applicant. It will be impossible to determine that fact from only examining of the MMD, because the endorsements for the qualified endorsements are the same. An REC receiving such an application should consider action under the suspension and revocation proceedings for fraudulent application.
- g. If the mariner holds a MMD endorsed with a qualified rating, either as able seaman or as a watchstanding QMED, but has never qualified for the equivalent STCW certification, he or she must meet the requirements of enclosure (1) or (2) as appropriate to qualify for STCW certification.

Encl: (1) Requirements for qualification as an RFPNW

(2) Requirements for qualification as an RFPEW

Dist: Commandant (G-MOC), (G-MSO)

Area Commanders (Am)
All District Commanders (m)

All COs, MSOs

All Activity Commanders

All RECs

REQUIREMENTS FOR QUALIFICATION AS AN RFPNW

- Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW), Regulation II/4.
- 1. This enclosure provides guidance for a mariner to qualify for STCW certification as an RFPNW. It applies to any mariner who must qualify as an RFPNW for service on vessels subject to the full effects of the STCW.
- 2. Reference (a) requires all ratings forming part of a navigational watch on a seagoing ship of 500 gross tonnage (GT) or more to be duly certified to perform such duties. This includes entry level ratings standing navigational watches, such as lookout watches. It also includes entry level personnel serving in a maintenance department when those persons are required by the Certificate of Inspection to be qualified to augment the navigational watch. This requirement for certification does not apply to a mariner standing navigational watches in a supervised training status or to one whose duties are of an unskilled nature.
- 3. Applicants for the STCW certification must provide evidence of:
 - a. Either six months of approved, seagoing service that includes training and experience associated with navigational watchkeeping functions and involves duties carried out under the direct supervision of the master, officer in charge of the navigational watch or qualified ratings; or
 - b. Satisfactory completion of a course approved or accepted as "special training" required by the STCW plus a period of approved seagoing service. The length of the period of approved seagoing service will be specified as part of the course's approval and will not be less than two months; and
 - c. Evidence that the applicant meets the standards of 46 CFR 12.05-5 as regards to eye sight, color vision, and hearing.
- 4. A day of approved seagoing service for qualification as a RFPNW is an eight-hour day under training carrying out duties associated with navigational watchkeeping functions under the direct supervision of the master, the officer in charge of a navigational watch, or a qualified rating (STCW Regulation II/4). A qualified rating for training purposes is an able seaman holding an STCW certificate. The applicant must provide a record showing each day, or four-hour period, when service under training was completed. The record of sea service must include the name of the vessel, the date(s) of the training, indicate whether it was a ocean or near coastal voyage, and be signed by the master, chief mate, or an officer in charge of the watch who holds a license of second mate or higher. The signing officer should include his license number. At least 50% of the service must be performed on a seagoing vessel of at least 200 gross register tons (GRT) (equal to 500 GT). The other 50% may be performed on seagoing vessels that meet the requirements of reference (b) for qualification as an able seaman. All steering and helm assessments must be completed on a vessel of at least 100 GRT. See Table 1 of this enclosure for specific equipment requirements.

- 5. In addition to the seagoing service in paragraph 3.a. or 3.b., an applicant must be assessed as meeting the competencies listed in the STCW Code, Table A-II/4. Attachment A is a listing of every task in which a mariner must be assessed. It may be used as a checklist to ensure that every practical demonstration has been completed. Attachment B includes a specification/check of sheet for each practical demonstration required to be completed by the mariner. When the mariner has successfully completed a practical demonstration, the designated examiner or shipboard assessor should complete the information on the bottom of the individual assessment specification. The signing officer attests that he or she has witnessed the mariner's satisfactory performance in the listed area(s) based on the performance criteria. The applicant must present this signed copy of each specification as part of the application package.
- 6. Each candidate must demonstrate the competence to (1) steer the ship and comply with helm orders; (2) keep a proper look out; and (3) contribute to a safe watch. Each must perform every required demonstration using actual equipment or an approved full mission simulator. All steering and helm assessments must occur on a vessel of at least 100 GRT or a full mission ship simulator programmed to realistically simulate the hydrodynamic properties of vessels of at least 200 GRT (500 GT), equipped with a rudder order indicator, a rudder angle indicator, gyrocompass, magnetic compass, and a steering stand which permits the steering to be switched from hand to gyro. The assessment of the ability to contribute to monitoring and controlling a safe watch must occur aboard a ship at sea.
- 7. To serve as a shipboard assessor for assessment of an applicant's practical demonstrations of skill, a mariner must read the publication *CONDUCTING MARINER ASSESSMENTS: A Practical Manual for Assessors.* This 13-page document is available on the World Wide Web at http://www.uscg.mil/nmc/marpers/pag/Guidance_for_Assessors_manual.pdf. A shipboard assessor who witnesses a practical assessment must sign the appropriate Assessments of Competence form (Enclosure (1), attachment (B)) and indicate that he or she has read and followed the guidance in the manual. A shipboard assessor who has read this document and uses the Assessments of Competence forms will ensure fair, standardized assessments of an applicant's ability to competently perform the assessed tasks. The prospective shipboard assessor must be employed on the vessel serving as the platform for the demonstrations. The assessor must be a licensed deck officer holding an unlimited second mate or higher level license, and appropriate STCW-95 certificate or master holding a limited license and STCW-95 certificate at the management level (master).
- 8. Provided that completion of a training course is approved as such, a mariner who completes the course may be issued an interim STCW certification endorsed "Rating forming part of a navigational watch -lookout duties only." This interim rating will be valid for one year from the date of issue and may not be renewed. Mariners holding this certification may perform lookout duties while completing sea service required for the final rating.
- 9. This STCW certification may be issued to any mariner who provides proof of one year of sea service in a relevant capacity within the deck department between 1 October 1986 and 30 September 1991 without requiring completion of the assessments of skills. Completion of basic safety training is required.

CHECKLIST TO RECORD COMPLETION OF PRACTICAL ASSESSMENTS TO QUALIFY AS A

RATING FORMING PART OF A NAVIGATIONAL WATCH

This checklist conveniently groups the STCW's competencies and the supporting knowledge, understandings, and proficiencies that apply to an RFPNW. Ships' officers who witness the successful demonstration of a mariner's competency, performed in accordance with the assessment standards, should print their name, sign the appropriate line in this checklist and include their license number.

MARINER'S NAME M	IMD NO
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STCW COMPETENCY	DATE
I. STEER THE SHIP AND COMPLY WITH HELM ORDERS IN	
THE ENGLISH LANGUAGE	
1. Use of magnetic compass and gyro compasses	
a. Steady on new course	
b. Steer a course by gyro compass	
c. Steer a course by magnetic compass	
2. Carry out helm order	
a. Right (Starboard) 10	
b. Left (Port) 20	
c. Hard right (Starboard)	
d. Ease to 5	
e. Midships; or, midships the wheel	
f. Shift your rudder	
g. Meet her; or check her	
h. Steady as she goes	
i. Steer on the range	
j. Nothing to the right (Starboard)	
3. Change of steering mode	
a. Change over from automatic pilot to hand steering	
b. Change over from hand steering to automatic pilot	

MARINER'S NAME MMD NO	MARINER'S NAME	
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II. KEEP A PROPER LOOKOUT BY SIGHT AND HEARING	
1. Responsibilities of a lookout, including reporting the	
approximate bearing of a sound signal, light, or other object	
in degrees or points.	
a. Detection of objects by day	
b. Detection of objects by night	
c. Detection of sounds	
III. CONTRIBUTE TO MONITORING AND CONTROLLING A	
SAFE WATCH	
1. Procedures for relief, maintenance and hand over of a	
watch	
a. Relief of lookout watch	
b. Relief of helm watch	
c. Use of appropriate internal communications and alarm systems	

ASSESSMENT NO. RFPNW -1-1A

FUNCTION: Navigation at the Support Level

COMPETENCE: Steer the ship and comply with helm orders in the English language

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Use of magnetic and gyro-compasses.

TASK: Steady on a new course

PERFORMANCE CONDITION: At full sea speed, while on a northeasterly heading, when hearing the command in English, "Steer 342" (the assessor may select any course desired as long as it is more than 30° from the original heading).

PERFORMANCE BEHAVIOR: Turn the helm to bring the vessel to the new course and steady on the course of 342°.

- 1. Repeat order.
- 2. Turn the helm in the direction of the fewest degrees to the ordered course using no more than 15° of rudder.
- 3. Reduce the rudder angle as the vessel approaches the course.
- 4. Steady on the course of 342° with less than 5° of overshoot.
- 5. State: she's steady on three four two.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner	SSN No.		
Designated Examiner/ shipboard Assessor	License No.	MMD No.	
Position	Vessel or Training Course		

ASSESSMENT NO. RFPNW-1-1B		
FUNCTION: Navigation at the Support Level		
COMPETENCE: Steer the ship and comply with helm orders in	the English langua	age
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Use of	magnetic and gyro	compasses.
TASK: Steer a course by gyrocompass		
PERFORMANCE CONDITION: In a sea state of 4 or less, whe English, "Steer 342."	n hearing the com	mand in
PERFORMANCE BEHAVIOR: Use the gyrocompass to steer t	the course of 342°.	
PERFORMANCE STANDARD:		
 Repeat order. When steady on course state: "steering three four two." Steer the course ordered within ± 3° (open ocean), and ±2° 	(near coastal) for 1	5 minutes.
A ship's officer who signs below attests that he/she has met the shipboard assessor.		qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position Vessel or T	raining Course	

ASSESSMENT NO. RFPNW-1-1C			
FUNCTION: Navigation at the Support Level			
COMPETENCE: Steer the ship and comply with helm orders in the English language			
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Use of magnetic and gyro-compasses.			
TASK: Steer a course by magnetic compass			
PERFORMANCE CONDITION: In a sea state of 4 or less, when hearing the command in English, "Steer 342."			
PERFORMANCE BEHAVIOR: Use the magnetic compass to steer the course of 342°.			
PERFORMANCE STANDARD:			
 Repeat order. When steady on course state: "Steering three four two." Steer the course ordered within ± 5° (open ocean), and ±3° (near coastal) for 15 minutes. 			
A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner SSN No.			
Designated Examiner/ shipboard Assessor License No. MMD No.			
Position Vessel or Training Course 1- 3			

ASSESSIMENT NO. REPINW-1-2A
FUNCTION: Navigation at the Support Level
COMPETENCE: Steer the ship and comply with helm orders in the English language
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders.
TASK: Right (Starboard) 10
PERFORMANCE CONDITION: When hearing the command in English, "Right (Starboard) 10."
PERFORMANCE BEHAVIOR: Turn the helm until the rudder is right (starboard) 10°.
PERFORMANCE STANDARD:
 Repeat order. Immediately turn helm to right (starboard). Stop turning the helm when the rudder angle indicator reads right (starboard) 10°. State: "The rudder is right (starboard) 10", or "She's right (starboard) 10°."
A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.
Mariner SSN No.
Designated Examiner/ shipboard Assessor License No. MMD No.
Position Vessel or Training Course 1- 4

SSESSMENT NO. REPNW-1-2B
UNCTION: Navigation at the Support Level
COMPETENCE: Steer the ship and comply with helm orders in the English language
NOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders.
ASK: Left (Port) 20
PERFORMANCE CONDITION: When hearing the command in English, "Left (Port) 20."
PERFORMANCE BEHAVIOR: Turn the helm until the rudder is left (port) 20°.
PERFORMANCE STANDARD:
 Repeat order. Immediately turn helm to left (port). Stop turning the helm when the rudder angle indicator reads left (port) 20°. State: "The rudder is left (port) 20", or "She's left (port) 20°."
A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.
Mariner SSN No.
Designated Examiner/ shipboard Assessor License No. MMD No.
Position Vessel or Training Course 1- 5

ASSESSMENT NO. RFPNW -1-2C

FU	NCTION: Navigation at the Support Level			
СО	MPETENCE: Steer the ship and comply with helm orders in the English language			
KN	OWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders.			
TA	SK: Hard right (Starboard)			
PE	RFORMANCE CONDITION: When hearing the command in English, "Hard right (Starboard)."			
PE	RFORMANCE BEHAVIOR: Turn the helm to the right (starboard) until the rudder is at maximum right (starboard) rudder.			
PΕ	RFORMANCE STANDARD:			
1.	Repeat order			
2.	Immediately turn helm to right (starboard).			
3.	3. Stop turning the helm when the rudder angle indicator reads the rudder is at maximum right (starboard) rudder.			
4.	. The rudder is not jammed against the stops.			
5.	5. State: "The rudder is hard right (starboard)", or She's hard right (starboard)."			
	A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
M	ariner SSN No.			
De	esignated Examiner/ shipboard Assessor License No. MMD No.			
Pr	osition Vessel or Training Course			
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ASSESSMENT NO. RFPNW-1-2D FUNCTION: Navigation at the Support Level **COMPETENCE:** Steer the ship and comply with helm orders in the English language KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders. TASK: Ease to 5 **PERFORMANCE CONDITION:** When the rudder is more than 5° right (starboard) or left (port), when hearing the command in English, "Ease to 5." PERFORMANCE BEHAVIOR: Turn the helm to reduce the angle of the rudder until the indicator shows the rudder angle is right (starboard) or left (port) 5°. PERFORMANCE STANDARD: 1. Repeat order. 2. Immediately turn helm to reduce the rudder angle. 3. Stop turning the helm when the rudder angle indicator shows the rudder angle is right (starboard) or left (port) 5°. 4. State: "The rudder is right (starboard) or left (port) 5°." A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor. Mariner SSN No. Designated Examiner/ shipboard Assessor License No. MMD No. Position Vessel or Training Course

ASSESSMENT NO. RFPNW -1-2E

FUNCTION: Navigation at the Support Level		
COMPETENCE: Steer the ship and comply with helm orders i	n the English langu	age
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm	orders.	
TASK: Midships; or, midships the wheel		
PERFORMANCE CONDITION: When hearing the command in	n English, "Midship	s."
PERFORMANCE BEHAVIOR: Turn the helm to reduce the ar angle indicator shows the rudder angle is zero.	ngle of the rudder u	ntil the rudder
PERFORMANCE STANDARD:		
 Repeat order. Immediately turn helm to reduce the rudder angle. Stop turning the helm when the rudder angle indicator shows. State: "The rudder is midships." 	vs the rudder angle	is zero.
A ship's officer who signs below attests that he/she has met the shipboard assessor.	ne requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position Vessel or 1-8	Training Course	

ASSESSMENT NO. RFPNW -1-2F

FU	NCTION: Navigation at the Support Level		
CC	DMPETENCE: Steer the ship and comply with helm orders in t	he English langua	ge
KN	IOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm ord	ders.	
TA	SK: Shift your rudder		
PE	RFORMANCE CONDITION: With the rudder at 15° right (star the command in English, "Shift your Rudder."	board) rudder, whe	en hearing
PE	RFORMANCE BEHAVIOR: Turn the helm to the left (port) ur rudder angle is left (port) 15°.	itil the indicator sho	ows the
PE	RFORMANCE STANDARD:		
1.	Repeat order.		
2.	Immediately turn helm to the left (port).		
3.	Stop turning the helm when the rudder angle indicator shows 15°.	the rudder angle is	s left (port).
4.	State: "The rudder is left (port) 15°."		
	ship's officer who signs below attests that he/she has met the nipboard assessor.	requirements to qu	ualify as a
- R 4		CONINI	
M	ariner	SSN No.	
D	esignated Examiner/ shipboard Assessor	License No.	MMD No.
	osition Vessel or Tra	aining Course	
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ASSESSMENT NO. RFPNW-1-2G		
FUNCTION: Navigation at the Support Level		
COMPETENCE: Steer the ship and comply with helm orders in	the English langu	uage
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm o	orders.	
TASK: Meet her or, check her		
PERFORMANCE CONDITION: During a turn, when hearing the Her," or "Check Her."	e command in En	glish, "Meet
PERFORMANCE BEHAVIOR: Turn the helm to reduce the and counter rudder until the vessel stops turning.	gle of the rudder a	and apply
PERFORMANCE STANDARD:		
 Repeat order. Immediately turn helm to reduce the rudder angle. Apply counter rudder until the vessel stops turning. Ease the wheel to midships. State: "The vessel's heading is" 		
A ship's officer who signs below attests that he/she has met the shipboard assessor.	e requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position Vessel or T	raining Course	

ASSESSMENT NO. RFPNW -1-2H **FUNCTION:** Navigation at the Support Level **COMPETENCE**: Steer the ship and comply with helm orders in the English language KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders. **TASK:** Steady as she goes PERFORMANCE CONDITION: When hearing the command in English, "Steady as She Goes." **PERFORMANCE BEHAVIOR:** Note the heading of the vessel, stop any swing of the ship, and steer in the direction noted when the command was given. PERFORMANCE STANDARD: 1. Repeat order. 2. Note the heading when the command was given. 3. Immediately apply rudder to stop any swing of the ship. 4. Steer in the direction noted. 5. State: "She's steady as she goes." A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor. Mariner SSN No. Designated Examiner/ shipboard Assessor License No. MMD No.

Vessel or Training Course

Position

AS	SESSMENT NO. RFPNW-1-2I
FU	NCTION: Navigation at the Support Level
СО	MPETENCE: Steer the ship and comply with helm orders in the English language
KN	OWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders.
TA	SK: Steer on the range
PΕ	RFORMANCE CONDITION: When hearing the command in English, "Steer on the range."
PE	RFORMANCE BEHAVIOR: Keep the vessel's heading the same as the direction of the range.
PΕ	RFORMANCE STANDARD:
	Repeat order. Use the upper and lower range to keep the vessel's heading within 1º of the charted direction of the range for 5 minutes when the upper and lower ranges are aligned one over the other.
	ship's officer who signs below attests that he/she has met the requirements to qualify as a hipboard assessor.
M	ariner SSN No.
De	esignated Examiner/ shipboard Assessor License No. MMD No.
Po	Osition Vessel or Training Course 1- 12

ASSESSMENT NO. RFPNW-1-2J

FUNCTION: Navigation at the Support Level **COMPETENCE**: Steer the ship and comply with helm orders in the English language KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Helm orders. **TASK:** Nothing to the right (Starboard) **PERFORMANCE CONDITION:** When hearing the command in English, "Nothing to the right (Starboard)" [nothing to the left (port) may also be used]. PERFORMANCE BEHAVIOR: Keep the vessel from swinging to the right (starboard) and the vessel's heading from increasing (or decreasing). **PERFORMANCE STANDARD:** 1. The vessel does not swing to the right (starboard). 2. The vessel's heading does not increase for 5 minutes. A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor. Mariner SSN No. Designated Examiner/ shipboard Assessor License No. MMD No. Position Vessel or Training Course 1-13

ASSESSMENT NO. RFPNW-1-3A

FUNCTION: Navigation at the Support Level **COMPETENCE**: Steer the ship and comply with helm orders in the English language KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Change over from automatic pilot to hand steering and vice versa. **TASK:** Change from auto pilot to hand steering **PERFORMANCE CONDITION:** At sea speed, when hearing the command to put the steering into hand steering. **PERFORMANCE BEHAVIOR:** Change the steering mode from auto pilot to hand steering. **PERFORMANCE STANDARD:** 1. Repeat order. 2. Switch the steering mode from autopilot to hand. 3. Test that the new steering mode is responding. 4. State, "She's in hand steering." A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor. Mariner SSN No. Designated Examiner/ shipboard Assessor License No. MMD No. Position Vessel or Training Course 1-14

ASSESSMENT NO. RFPNW -1-3B **FUNCTION:** Navigation at the Support Level **COMPETENCE**: Steer the ship and comply with helm orders in the English language KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Change over from automatic pilot to hand steering and vice versa. **TASK:** Change from hand steering to auto pilot **PERFORMANCE CONDITION:** At sea speed, when hearing the command to put the steering into auto pilot. **PERFORMANCE BEHAVIOR:** Change the steering mode from hand steering to auto pilot. **PERFORMANCE STANDARD:** 1. Repeat order. 2. Put wheel amidships. 3. Verify the course dialed into the auto pilot is the same as the course to be steered. 4. Switch the steering mode from hand to auto pilot. 5. Verify that the autopilot is responding properly. 6. State, "She's in auto pilot." A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor. Mariner SSN No. Designated Examiner/ shipboard Assessor License No. MMD No. Position Vessel or Training Course 1- 15

ASSESSMENT NO. RFPNW -2-1A **FUNCTION:** Navigation at the Support Level **COMPETENCE:** Keep a proper look out by sight and hearing KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Responsibilities of lookout, including reporting the approximate bearing of a sound signal, light or other object in degrees or points. **TASK:** Detect and report objects in daylight **PERFORMANCE CONDITION:** On a ship or full mission ship simulator, given a condition in daylight of unlimited visibility through a field of view from right ahead to 22.5 degrees abaft the beam on each side of the vessel and a sea state of four or less, and a large and small vessel and a buoy in sight. **PERFORMANCE BEHAVIOR:** Detect and report all three objects. **PERFORMANCE STANDARD:** 1. Reports the large vessel before it is within ten miles of own ship. 2. Reports the small vessel before it is within 2 miles of own ship. 3. Reports the buoy before it is within 2 miles of own ship. 4. Reports the directions to all objects in degrees or points within ±1 point or ± 11.25°. A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor. Mariner SSN No. Designated Examiner/ shipboard Assessor License No. MMD No.

Vessel or Training Course

Position

ASSESSMENT NO. RFPNW-2-1B FUNCTION: Navigation at the Support Level **COMPETENCE:** Keep a proper look out by sight and hearing KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Responsibilities of lookout, including reporting the approximate bearing of a sound signal, light or other object in degrees or points. **TASK:** Detect and report objects at night **PERFORMANCE CONDITION:** On a ship or full mission ship simulator, given a condition at night of unlimited visibility through a field of view from right ahead to 22.5 degrees abaft the beam on each side of the vessel and a sea state of four or less, and a large and small vessel and a buoy in sight. **PERFORMANCE BEHAVIOR:** Detect and report all three objects. **PERFORMANCE STANDARD:** 1. Reports the lights of the large vessel before it is within ten miles of own ship. 2. Reports the lights of the small vessel before it is within 2 miles of own ship. 3. Reports the light of the buoy before it is within 2 miles of own ship. 4. Reports the directions to all objects in degrees or points within ±1 point or ± 11.25°. A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner

SSN No.

Designated Examiner/ shipboard Assessor

License No.

MMD No.

Position

Vessel or Training Course

ASSESSMENT NO. RFPNW -2-2A	
FUNCTION: Navigation at the Support Level	
COMPETENCE: Keep a proper look out by sight and hearing	
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Responsibilities of lookout, included reporting the approximate bearing of a sound signal, light or other object in degrees or points.	
TASK: Detect and report sounds	
PERFORMANCE CONDITION: On a ship or full mission ship simulator, in any condition of visibility, when a sound is generated by any sound appliance listed in the International Navigation Rules.	of
PERFORMANCE BEHAVIOR: Detect and report the direction of the sound.	
PERFORMANCE STANDARD:	
Report the direction of the sound in degrees or points within ± 1 point or $\pm 11.25^{\circ}$.	
A ship's officer who signs below attests that he/she has met the requirements to qualify a shipboard assessor.	ıs a
Mariner SSN No.	
Designated Examiner/ shipboard Assessor License No. MMD	No.
Position Vessel or Training Course	

ASSESSMENT NO. RFPNW -3-1A

FUNCTION: Navigation at the Support Level

COMPETENCE: Contribute to monitoring and controlling a safe watch

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Procedures for the relief, maintenance

and hand over of a watch.

TASK: Hand over a lookout watch

PERFORMANCE CONDITION: On a ship at sea, given traffic that has been reported to the officer of the watch, when the lookout relief reports to relieve the watch.

PERFORMANCE BEHAVIOR: Hand over the watch in accordance with the ordinary practice of good seamanship.

- 1. Tells the relief of:
 - a. all objects sighted and reported;
 - b. objects sighted and not yet reported;
 - c. past and present weather;
 - d. any special instructions to be followed during the watch; and
 - e. the status of the running lights.
- 2. The candidate allows the lookout relief to acquire his or her night vision.
- 3. Report "The lookout is relieved."

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner	SSN No.		
Designated Examiner/ shipboard Assessor	License No.	MMD No.	
Position	Vessel or Training Course		

ASSESSMENT NO. RFPNW-3-1B FUNCTION: Navigation at the Support Level **COMPETENCE:** Contribute to monitoring and controlling a safe watch KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Procedures for the relief, maintenance and hand over of a watch. **TASK:** Hand over a helm watch **PERFORMANCE CONDITION:** On a ship at sea, when being relieved at the helm. **PERFORMANCE BEHAVIOR:** Hand over the helm in accordance with the ordinary practice of good seamanship. **PERFORMANCE STANDARD:** 1. Tells the relief: a. both the gyro and magnetic course or helm position; b. the steering mode; c. the steering unit in use; and d. the amount and direction of rudder needed to hold course. 2. The candidate does not turn over the helm while executing a helm order (the candidate waits until the order is completed). 3. The helmsman states, "The wheel (or helm) is relieved." A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

SSN No.

Designated Examiner/ shipboard Assessor

Position

SSN No.

License No.

MMD No.

Vessel or Training Course

ASSESSMENT NO. RFPNW -3-2A

FUNCTION: Navigation at the Support Level

COMPETENCE: Contribute to monitoring and controlling a safe watch

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Use of appropriate internal

communications and alarm systems.

TASK: Report alarms

PERFORMANCE CONDITION: On a ship at sea.

PERFORMANCE BEHAVIOR: Notify the officer of the watch when hearing the following alarms:

- 1. The ARPA guard ring intrusion alarm;
- 2. The gyro-compass failure alarm;
- 3. Smoke and/or heat detector alarms;
- 4. Running light panel alarms;
- 5. The steering motor failure alarm; and,
- 6. The steering pump failure alarm.

PERFORMANCE STANDARD:

- 1. Immediately report each alarm to the Officer in Charge of the Watch.
- 2. In the case of steering failures, immediately after notifying the Officer in Charge of the Watch:
 - a. if not in hand steering, switch the steering to hand;
 - b. midship the wheel;
 - c. switch the motor or pump;
 - d. test the steering response; and,
 - e. when ordered by the watch officer, switch the steering to autopilot.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

REQUIREMENTS FOR QUALIFICATION AS AN RFPEW

- Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW), Regulation III/4
 - (b) COMDTINST M16000.8B Marine Safety Manual Volume III, Chapter 16
- 1. This enclosure provides guidance for engineering ratings to qualify for STCW certification as a rating forming part of an engine room watch in a manned engine room or designated to perform duties in a periodically unmanned engine room.
- 2. This enclosure applies to engineering ratings certificated as oiler, fireman/watertender, or junior engineer, or to wipers standing engineering watches on vessels to which the full effects of the STCW apply. It also applies to those same ratings if they are part of the maintenance department and may be assigned regular engine room watches if required.
- 3. Reference (b) requires all ratings forming part of an engineering watch on seagoing vessels powered by main propulsion machinery of 750 kilowatts (kW) (1,000 horsepower [HP] or more) to meet STCW standards. Also, because the United States accepts qualification under our domestic certification scheme for service on vessels under 200 GRT in near coastal, domestic service, the requirements in this enclosure do not apply to such service. STCW certification requirements also do not apply to a mariner who is standing engineering watches in a supervised training status and is an extra member of the watch.
- 4. Applicants for STCW certification as a RFPEW must provide evidence of:
 - a. Six months of approved, seagoing service that includes training and experience
 associated with engine room watchkeeping functions and involve the performance of
 duties carried put under the supervision of qualified engineer officer or qualified rating;
 or
 - b. Satisfactory completion of a course approved or accepted as being special training required by the STCW and a period of approved seagoing service. The length of the period of approved seagoing service will be specified as part of the course's approval.
- 5. A day of approved seagoing service for qualification as a RFPEW is eight-hour associated with engine room watchkeeping functions that involves the performance of duties carried out under the direct supervision of a qualified engineer officer or a qualified rating (STCW Regulation III/4). As an alternative to eight hours of training in one day, days of approved seagoing service may be acquired through directly supervised training periods of not less than four hours. Two such periods equal one day. The applicant must provide a record showing each day, or four-hour period, when service under training was completed. The record of sea service must include the name of the vessel, the date(s) of the training, indicate whether it was a steam or motor vessel and be signed by the chief engineer, first assistant engineer, or an assistant engineer who holds a license as second assistant engineer or higher. The signing officer should include his license number. A qualified rating for training purposes is a watchstanding QMED who has held that rating for at least one year. The service must be performed on a vessel of at least 1,000 horsepower (750kW) that meets the criteria of reference (b) for qualification as a qualified

member of the engine department (QMED). At least two-thirds of the required seagoing service must have been performed on a steam vessel or the STCW certification will be limited to motor vessels only. Because many vessels no longer have manned engine rooms, experience with engine room maintenance may be substitute for watch keeping experience.

- 6. In addition to the seagoing service in paragraph 4.a. or 4.b., an applicant must be assessed as meeting the competencies listed in the STCW Code, Table A-II/4. Attachment A is a listing of every task in which a mariner must be assessed. It may be used as a checklist to ensure that every practical demonstration has been completed. Attachment B includes a specification/check-off sheet for each practical demonstration required to be completed by the mariner. Note that three of the assessments, indicated on both the checklist and the individual assessment sheet, are only required if the applicant applies for certification valid for service on steam vessels. When the mariner has successfully completed a practical demonstration, the designated examiner or shipboard assessor should complete the information on the bottom of the individual assessment specification. The signing officer attests that he or she has witnessed the mariner's satisfactory performance in the listed area(s) based on the performance criteria. The applicant must present this signed copy of each specification as part of the application package.
- 7. To serve as a shipboard assessor for assessment of an applicant's practical demonstrations of skill, a mariner must read the publication *CONDUCTING MARINER ASSESSMENTS: A Practical Manual for Assessors.* This 13-page document is available on the World Wide Web at http://www.uscg.mil/hq/g-m/marpers/pag/assessors.pdf. A shipboard assessor who witnesses a practical assessment must sign the appropriate Assessments of Competence form (enclosure (2), attachment (B)) and indicate that he or she has read and followed the guidance in the manual. A shipboard assessor who has read this document and uses the Assessments of Competence forms will ensure a fair, standardized assessments of an applicant's ability to competently perform the assessed tasks. The prospective shipboard assessor must be employed on the vessel serving as the platform for the demonstrations, be a licensed engine officer holding a second assistant engineer license or higher and hold an approved STCW-95 certificate.
- 8. These requirements do not apply to non-watchstanding QMED ratings (electrician, machinist, refrigerating engineer, deck engineer, and pumpman).
- 9. Graduates of approved training courses that lead to a watchstanding QMED endorsement must also provide proof of meeting the STCW's competencies (attachment (A)) unless the course's approval indicates that course completion satisfies the STCW's competencies.
- 10. This STCW certification may be issued to any mariner who provides proof of one year of sea service in the engine room between 1 October 1986 and 30 September 1991 without requiring completion of the assessments of skills. Completion of basic safety training is required.

CHECKLIST TO RECORD COMPLETION OF PRACTICAL ASSESSMENTS TO QUALIFY AS A

RATING FORMING PART OF AN ENGINEERING WATCH

This checklist conveniently groups the STCW's competencies and the supporting knowledge understandings, and proficiencies that apply to an RFPEW. Ships' officers who witness the successful demonstration of a mariner's competency, performed in accordance with the assessment standards, should sign the appropriate line in this checklist, print their name, and include their license number.

MARINER'S NAME	MMD NO.	
CTCW COMPETENCY		DATE

STCW COMPETENCY	DATE
I. CARRY OUT A WATCH ROUTINE APPROPRIATE TO THE DUTIES OF AN REPEW AND UNDERSTAND	
ORDERS AND BE UNDERSTOOD IN MATTERS RELEVANT TO WATCHKEEPING DUTIES	
1. Safe working practices	
a. Clean oil purifier and demonstrate safe working practices	
b. Assist in pre-start check of diesel engine	
2. Engine-room watchkeeping procedures	
a. Relieve the watch	
b. Hand over the watch	
c. Make a round	
d. Adjust settings on potable water tank	
e. Take on fresh water	
f. Monitor electrical generating plant	
g. Determine tank and pressure vessel levels	
h. Take up on valve stuffing box gland	
i. Lubricate equipment fitted with a zirc fitting and a grease cup	
j. Clean basket type sea water strainer	
k. Manually light off a boiler*	
l. Monitor main turbines	
m. Monitor propulsion shafting and bearings	
n. Inspect the steering gear	

MARINER'S NAME	MMD NO	

o. Monitor distilling plant	
3. Basic environmental protection procedures	
a. Monitor sewage treatment plant	
b. Monitor oily water separator	
c. Monitor lube oil and fuel oil purification plants	
d. Monitor compressed air plants	
e. Monitor refrigeration and air conditioning plants	
f. Add clean oil	
g. Pump bilges to holding tanks	
4. Use of appropriate internal communication systems	
5. Engine room alarm systems and ability to distinguish between the various alarm, with special reference to fire	
extinguishing systems	
II. FOR KEEPING A BOILER WATCH, MAINTAIN THE CORRECT WATER LEVELS AND STEAM PRESSURES	
1. Safe operation of boilers	
a. Maintain water level	
b. Maintain steam pressure	
c. Determine and record readings	
d. Change out burners*	
e. Maintain clean burner assembly*	
III. OPERATE EMERGENCY EQUIPMENT AND APPLY EMERGENCY PROCEDURES	
1. Escape routes from machinery spaces	
2. Familiarity with the location and use of fire fighting equipment in the machinery spaces	
a. Locate and describe the use of emergency equipment	
b. Put fire pump into service	

^{*} Required for issuance of a certification valid for service on steam vessels. May be omitted by applicants for certification for service on motor vessels only.

ASSESSMENT NO. RFPEW-1-1A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

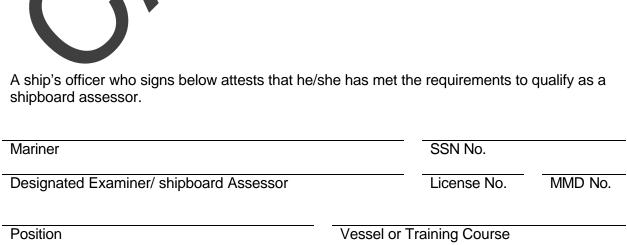
KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Relieve the watch

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Properly relieve the watch

- 1. Reports for duty 15 minutes before the hour
- 2. Determines from the off-going watch; plant operational status, unusual alarms or conditions during previous watch, standing orders, maintenance performed during previous watch, ongoing repairs affecting plant operations, outstanding safety conditions; and
- 3. Seeks clarification from the off-going watch or engineer if information was not clearly understood.



ASSESSMENT NO. RFPEW-1-1B

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Hand over the watch

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approv simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Properly hand over the watch.

- 1. In preparation for relief, ensures that all assigned routine duties are completed before the conclusion of the watch:
- 2. Communicates to the oncoming watch: plant operational status, unusual alarms or conditions during previous watch, standing orders, maintenance performed during previous watch, on-going repairs affecting plant operations, outstanding safety conditions; and
- 3. Ensures the watch relief is fully aware of the operational status of the plant.

A ship's officer who signs below attests that he/sh shipboard assessor.	e has met the	requirements to o	qualify as a
Mariner		SSN No.	
Designated Examiner/ shipboard Assessor		License No.	MMD No.
Position	Vessel or Tra	aining Course	

ASSESSMENT NO. RFPEW-1-1C

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Engine Room Round

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Properly make a round during watch.

- 1. Inspects, monitors and checks system parameters of all auxiliary systems and machinery, and main propulsion machinery.
- 2. Inspects bilges, pumping as necessary;
- 3. Checks machinery spaces for all signs of fire, flooding and electric shock hazard;
- 4. Wipes up all oil accumulation;
- 5. Inspects all system and machinery piping for signs of leaks;
- 6. Monitors all applicable strainer and filter pressure drops;
- 7. Checks electric motors and machinery for overheating;
- 8. Investigates any abnormal sounds, vibrations or odors;
- 9. Checks for any gear adrift or machinery guards not in place;
- 10. Notifies watch engineer of any unusual or unsafe conditions; and
- 11 Takes appropriate action to correct any unusual or unsafe conditions.
- 1. No safety violations are observed.

A ship's officer who signs below attests that he/sr shipboard assessor.	ne has met the requ	irements to (qualify as a
Mariner	SSI	N No.	
Designated Examiner/ shipboard Assessor	Lice	ense No.	MMD No.
Position	Vessel or Training	g Course	

ASSESSMENT NO. RFPEW-1-1D

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Adjust Potable Water Tank Level and Pressure Range Settings

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Adjust the water level range setting and the pressure range setting for potable water tank.

- 1. Correctly adjusts water level range and pressure setting within -/- 5% of proper operating conditions for potable water tanks.
- 2. No safety violations are observed.

A ship's officer who signs below attests that he/sl shipboard assessor.	he has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1E

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Take on Fresh Water

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Take on fresh water.

- 1. Determines from the watch engineer or equivalent, the order in which the fresh water tanks are to be filled;
- 2. Lines up system properly;
- 3. Proper hose is used;
- 4. Flushes out dock connection;
- 5. Assists taking sample for testing before taking on water;
- 6. Properly takes on fresh water; and
- 7. Secures fresh water manifold after task is complete.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1F

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Sewage Treatment Plants

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor sewage treatment plants.

- 1. Checks plant's operational mode status;
- 2. Checks destination of "black water" sewage;
- 3. Checks sewage circulating and overboard discharge pump pressures:
- 4. Checks sewage circulating and overboard discharge pump mechanical seals for leakage;
- Checks air compressor discharge pressure;
- 6. Checks chemical batch tank level;
- 7. Checks for any unusual conditions of noises; and
- 8. Notifies watch engineer of any unusual or unsafe conditions.
- 9. No safety or pollution violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	e has met the requirements to o	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1G

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Oily Water Separators

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor the oily water separators.

- 1. Checks plant operational mode status;
- 2. Checks bilge water tank level;
- 3. Checks oily water separator chamber pressure;
- 4. Checks filling and displacement water supply pressure;
- 5. Checks overboard discharge water pump pressure;
- 6. Checks oil concentration of overboard discharge water;
- 7. Checks for any unusual conditions or noises; and
- 8. Notifies watch engineer of any unusual or unsafe conditions.
- 9. No safety or pollution violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner	SSN No.		
Designated Examiner/ shipboard Assessor	License No.	MMD No.	
Position	Vessel or Training Course		

ASSESSMENT NO. RFPEW-1-1H

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Lube Oil or Fuel Oil Purification Plants

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor lube oil or fuel oil purification plants.

PERFORMANCE STANDARD:

- 1. Checks plant operational mode status;
- 2. Checks dirty oil inlet temperature;
- 3. Checks dirty oil inlet pressure;
- 4. Checks clean oil discharge pressure;
- 5. Checks purifier gear drive oil sump;
- 6. Determines point of suction to include engine sump, settling tank, or other tank;
- 7. Determines point of discharge to include ; engine sump, day tank, or other tank;
- 8. Checks priming and wash water pressure;
- 9. Checks operating water pressure;
- 10. Checks control air pressure;

Position

- 11. Checks for any unusual conditions or noises; and
- 12. Notifies watch engineer of any unusual or unsafe conditions.
- 13 No safety or pollution violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.				
Mariner	SSN No.			
Designated Examiner/ shipboard Assessor	License No.	MMD No.		

2-8

Vessel or Training Course

ASSESSMENT NO. RFPEW-1-11

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Compressed Air Plants

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor compressed air plants.

- 1. Checks plant operational mode status;
- 2. Checks compressor oil level;
- 3. Checks compressor oil pressure if applicable;
- 4. Checks air compressor suction pressure or air inlet fifter pressure differential indication as appropriate;
- 5. Checks air compressor discharge pressure and compressed air service tank pressures;
- 6. Checks compressor load/unload status;
- 7. Checks for any unusual conditions or noises;
- 8. Blows down intercoolers, after coolers, and receivers; and
- 9. Notifies watch engineer of any unusual or unsafe conditions.
- 10. No safety or pollution violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1J

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Refrigeration And Air Conditioning Plants

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor refrigeration and air conditioning plants.

PERFORMANCE STANDARD:

- Checks plant operational mode status;
- Checks compressor suctions and discharge pressures;
- 3. Checks compressor oil level;
- 4. Checks compressor oil pressure and control oil pressures;
- 5. Checks receiver level;
- 6. Checks liquid line sight glass condition;
- 7. Checks suction and discharge temperatures;
- 8. Checks condenser sea water inlet and outlet temperatures;
- 9. Checks walk in temperature if applicable;
- 10. Checks chilled water pump suction and discharge pressures if applicable;
- 11. Checks chilled water inlet and outlet temperatures if applicable;
- 12. Checks chilled water expansion tank level if applicable; and
- 13. Notifies watch engineer of any unusual or unsafe conditions.
- 14. No safety or pollution violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1K

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Electricity Generating Plants

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor electricity generating plants.

- 1. Checks plant operational mode status;
- 2. Checks generator rpm;
- 3. Checks generator frequency;
- 4. Checks generator output voltage
- 5. Checks generator output amperage;
- 6. Checks generator kilowatt output:
- 7. Checks generator kilovolt-amp output;
- 8. Checks generator bearings temperature and oil flow;
- 9. Checks for any unusual conditions or noises; and
- 10 Notifies watch engineer of any unusual or unsafe conditions.
- 11. No safety violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the	requirements to	qualify as a
Mariner		SSN No.	
Designated Examiner/ shipboard Assessor		License No.	MMD No.
Position	Vessel or Tr	aining Course	

ASSESSMENT NO. RFPEW-1-1L

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Determine Tank and Pressure Vessel Levels

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Determine tank and pressure vessel levels.

- 1. Determines the liquid level of vented tanks and low-pressure pressure vessels fitted with tubular sightglasses;
- 2. Determines the liquid level of a high-pressure pressure vessel fitted with a high-pressure gauge glass and /or remote level indicator;
- 3. Determines the liquid level of a vented tank fitted with petcocks;
- 4. Sounds the liquid level of 2 vented tanks (1 fuel or lube oil, and 1 water), fitted with sounding tubes, using a sounding tape;
- 5. Determines the fluid level of a lube oil sump fitted with a dipstick;
- 6. Determines the liquid level of a vented tank fitted with a pneumercator;
- 7. Determines the oil/water interface of the slop tank; and
- 8. Determines the level of a vented tank or pressure vessel fitted with remote reading level gauges.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner	SSN No.		
Designated Examiner/ shipboard Assessor	License No.	MMD No.	
Position	Vessel or Training Course		

ASSESSMENT NO. RFPEW-1-1M

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Take Up on Valve Stuffing Box Gland

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Take up on a gate or globe valve stuffing box gland.

PERFORMANCE STANDARD:

- 1. Determines the need to take up on gate or globe stuffing box glands;
- 2. Checks for bent or scored stem;
- 3. Checks valve for ease of operation, ensuring that it is a candidate for taking up on the gland without the necessity of adding packing on re-packing the valve;
- 4. Checks position of gland to determine if it may be further tightened;
- 5. Tightens alternately each gland nut slightly and evenly until stem to bonnet leakage ceases;
- 6. Inspects the gland to insure that it is square; and

Checks valve for ease of operation ensuring that operation is not unacceptably difficult.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1N

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Add Clean Oil

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Add clean oil

- 1. Determines the need to add oil
- 2. Obtains an adequate amount of clean oil of proper grade and type;
- 3. Removes filter cap or plug;
- 4. Pours oil through filler cap or oil filler plug opening;
- 5. Checks oil level and verifies that oil level has been brought up to specified level; and
- 6. Replaces filler cap or plug and leaves area clean.
- 7. No safety violations or pollution are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner	SSN No.		
Designated Examiner/ shipboard Assessor	License No.	MMD No.	
Position	Vessel or Training Course		

ASSESSMENT NO. RFPEW-1-10

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engineroom watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine room watchkeeping procedures.

TASK: Lubricate Bearings

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Lubricate grease lubricated bearings.

PERFORMANCE STANDARD:

Zirc fitting equipped grease lubricated bearing:

- Determines from appropriate lubrication chart the type and grade of grease to be used;
- 2. Obtains grease gun with appropriate hoses and connections and charged with proper grease cartridge;
- 3. Removes zirc fitting protective covering if fitted;
- 4. Wipes zirc fitting free of grease and dirt with a rag;
- 5. Removes air from grease gun hose by slowly squeezing handle until grease starts to exit fitting;
- 6. Attaches hose fitting to bearing zirc fitting;
- 7. Slowly pumps in grease until grease just starts to appear at bearing lip seals. If high resistance is met, ceases attempt and notifies watch engine
- 8. Removes hose fitting from bearing zirc fitting;
- 9. Wipes zirc fitting free of grease with a rag; and10. Replaces zirc fitting protective covering.

Grease cup equipped grease lubricated bearing:

- 1. Determines from appropriate lubrication chart the type and grade of grease to be used;
- 2. Obtains sufficient clean quantity of correct grease;
- 3. Removes drain plug opposite grease cup and ensures hole is free from hardening grease;
- emoves cap from grease cup; 4.
- 5. Wipes out grease cup with rag;
- Fills grease cup with grease; 6.
- Installs cap onto grease cup forcing grease into bearing housing; 7.
- Continues and repeat s as necessary until grease begins to flow out drain hole;
- Wipes excess grease from bearing housing with a rag; and
- 10. Reinstall drain plug.

shipboard assessor.	rane has met the requirements to	quality as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

A shin's officer who signs below attests that he/she has met the requirements to qualify as a

ASSESSMENT NO. RFPEW-1-1P

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Clean Sea Strainer

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Clean basket type sea water strainer

PERFORMANCE STANDARD:

- 1. Ascertains the need for cleaning a duplex strainer;
- 2. Ensures that the selector handle is positioned on the element not being cleaned;
- 3. Loosens idle strainer lid fasteners or hold down dogs as appropriate;
- 4. Insures strainer house is depressurized and that selector plug valve is not leaking;
- 5. Removes fasteners or positions dogs clear out of the way;
- 6. Lifts up strainer lid and sets aside;
- 7. Lifts up and removes strainer basket;
- 8. Cleans strainer basket;
- 9. Reinstalls strainer basket;
- 10. Inspects housing and lid mating surfaces; scrapes and cleans and replaces gasket as necessary;
- 11. Replaces and aligns lid on top of strainer housing;
- 12. Hand tightens bolts or firmly tightens hold down dogs;
- 13. Wrench tightens bolts or firmly tightens hold down dogs;
- 14. Cracks strainer element selector handle towards idle strainer housing to slowly admit sea water and pressurize housing;
- 15. Checks strainer for housing for leaks; and
- 16. Repositions selector handle fully towards the strainer housing in service.
- 17. Notifies watch engineer of any unusual or unsafe conditions.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner		SSN No.	
Designated Examiner/ shipboard Assessor	l	License No.	MMD No.
Position	Vessel or Train	ning Course	

ASSESSMENT NO. RFPEW-1-1Q (Required for steam vessel endorsement)

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine-room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Light Off Main Boiler

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Manually light off a main boiler.

PERFORMANCE STANDARD:

- 1. Ensures auxiliary and main feed checks are closed;
- 2. Opens/closes boiler water level gauge glass drain noting water movement in glass;
- 3. Makes up atomizer with small sprayer plate and installs in centrally located register;
- 4. Opens root valve on installed burner;
- 5. Ensures burner and root valves are closed;
- 6. Lines up fuel oil system to recirculate through heater. Checks fuel oil temperature, and reports when at proper temperature as stipulated by the watch engineer;
- 7. Adjusts fuel oil pressure;
- 8. Checks air damper and register doors
- 9. Starts forced draft fan, and purges furnace;
- 10. Lights torch;
- 11. Inserts torch through manual light off opening;
- 12. Stands clear of open register doors
- 13. Holds torch near and just under atomizer tip;
- 14. Cracks open burner valve;
- 15. Checks for ignition,
- 16. Opens burner valve wide when ignition occurs and fire stays lit (closes burner valve and purges furnace if ignition does not occur or if fire goes out);
- Withdraws torch;
- 18. Inspects fire through peep hole;
- 19. Secures fuel oil re-circulating line and adjusts pressure for proper flame;
- 20. Checks periscope for smoke and adjusts fuel/air ratio as needed for clear stack; and
- 21. Notifies watch engineer of any unusual or unsafe conditions.
- 22. No safety violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner	SSN	l No.	
Designated Examiner/ shipboard Assessor	Lice	nse No.	MMD No.
Position	Vessel or Training	Course	

ASSESSMENT NO. RFPEW-1-1R

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Main Turbines

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor the main turbines.

- 1. Monitors main lube oil temperature entering and leaving the main lube oil cooler;
- 2. Monitors the main lube oil tank level for condition of overflow as appropriate;
- 3. Monitors lube oil pressure available at the bearings and oil return temperature from each;
- 4. Monitors steam supply pressure, gland sealing steam pressure, and main condenser vacuum and hotwell level; and
- 5. Notifies watch engineer of any unusual or unsafe conditions.

A ship's officer who signs below attests that he/sh shipboard assessor.	e has met the req	uirements to qu	ualify as a
Mariner	SS	SN No.	
Designated Examiner/ shipboard Assessor	Lic	ense No.	MMD No.
Position	Vessel or Trainin	ig Course	

ASSESSMENT NO. RFPEW-1-1S

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor Propulsion Shafting & Bearings

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor propulsion shafting and bearings.

PERFORMANCE STANDARD:

- 1. Checks all line shaft bearing sump oil levels;
- 2. Checks all line shaft bearing oil temperatures;
- 3. Checks all line shaft bearing oiler rings;
- 4. Checks independent thrust bearing sump level where appropriate;
- 5. Checks independent thrust bearing lube oil sump temperature where appropriate;
- 6. Checks independent thrust bearing lube oil cooler inlet and outlet temperatures where appropriate;
- 7. Checks independent thrust bearing lube oil supply pressure where appropriate;
- 8. Checks independent thrus bearing gravity head tank level where appropriate:
- 9. Checks water lubricated stern tube stuffing box for proper leak-off where appropriate;
- 10. Checks oil lubricated stern tube lube sump tank level where appropriate;
- 11. Checks oil lubricated stern tube lube oil pressure where appropriate;
- 12. Checks oil lubricated stern tube oil temperatures where appropriate;
- 13. Checks oil lubricated stern tube inboard shaft seal for leakage if appropriate; and
- 14. Notifies watch engineer of any unusual or unsafe conditions.
- 15. No safety violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1T

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Inspect Steering Gear

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Inspect the steering gear.

- 1. Correctly compares rudder angle mechanical sliding scale with electrical indicator, if fitted;
- 2. Monitors steering gear for leaks, noises, temperature and oil levels;
- 3. Tests communication devices; and
- 4. Notifies watch engineer of all unusual or unsafe condition.
- 5. No safety violations are noted.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-1U

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine-room watchkeeping procedures.

TASK: Monitor the distilling plant

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Monitor the distilling plant.

- 1. checks plant operational mode status;
- 2. checks sea-water feed, brine, distillate, and ejector pump suction and discharge pressures as appropriate;
- 3. checks air-ejector steam supply pressure, if applicable;
- 4. checks air/brine-ejector supply pressure, if applicable;
- 5. checks sea-water feed in et temperature;
- 6. checks distillate outlet temperature;
- 7. checks first- and second-stage shell vacuums as appropriate;
- 8. checks feed-water-heater inlet pressure and temperature as applicable;
- 9. verifies and checks distillate pump discharge to proper tank:;
- 10. checks distillate salinity; and
- 11. notifies the watch engineer of any unusual or unsafe conditions.

A ship's officer who signs below attests that he/sl shipboard assessor.	ne has met the re	equirements to c	qualify as a
Mariner		SSN No.	
Designated Examiner/ shipboard Assessor	L	icense No.	MMD No.
Position	Vessel or Train	ning Course	

ASSESSMENT NO. RFPEW-1-2A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe working practices as related to engine room operations.

TASK: Clean Lube Oil or Fuel Oil Purifier

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Clean a lube oil or fuel oil purifier to demonstrate safe working practices for the following:

- Lifting heavy equipment;
- Assist in placing purifier on line;
- Putting steam on heaters
- Handling chemicals
- Working with delicate equipment
- Cleaning an oil strainer

- 1. Performs tasks safely using all required safety equipment (safety shoes, safety glasses, explosion-proof lighting and electrical devices, hearing protection, gloves, hard hat, respirator mask, etc) and adhering to all safety procedures (verifies tag-out procedures, notifications, safe lifting techniques, etc.);
- 2. Leaves area safe and secure;
- 3. Reports all unusual findings or unsafe conditions; and
- 4. Cleans the suction strainer.
- 5. No other safety violations are observed.

A ship's officer who signs below attests that he/s shipboard assessor.	she has met the requirements	to qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-2B

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe working practices as related to engine room operations.

TASK: Assist in Pre-Start Check of Diesel Engine

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Assist in a pre-start check of a main or auxiliary diesel engine.

- 1. Checks general exterior of engine for debris, leaks, or unsafe conditions;
- 2. Checks lube oil levels in sump and governor;
- 3. Checks cooling water expansion tank; and
- 4. Checks associated pumps as fitted
- 5. No safety violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner		SSN No.	
Designated Examiner/ shipboard Assessor	<u>_</u>	icense No.	MMD No.
D. W.		0	
Position	Vessel or Train	ling Course	

ASSESSMENT NO. RFPEW-1-3A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Basic environmental protection procedures.

TASK: Pump Bilges

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Pump the bilges to holding tanks from one of the following locations:

- Shaft alley;
- Engine room;
- Cargo hold.

- 1. Correctly lines up bilge system and pumps bilges dry to the correct holding tank in accordance with ship's procedures.
- 2. No safety violations or pollution are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	e has met the	requirements to o	qualify as a
Mariner		SSN No.	
Designated Examiner/ shipboard Assessor		License No.	MMD No.
Position	Vessel or Tr	aining Course	

ASSESSMENT NO. RFPEW-1-4A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Use of appropriate internal communication systems.

TASK: Operate Internal Communications Systems

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Demonstrate the correct operation and use of all internal communications systems.

- 1. Answers phone stating location, name, and rank,
- 2. Correctly operates and communicates with remote stations via ship's phone;
- 3. Correctly operates and communicates with remote stations via sound powered phone;
- 4. Correctly operates and communicates with remote stations via two way radio; and
- 5. All operations are in accordance with ship's procedures.
- 6. No safety violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to c	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-1-5A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Carry out a watch routine appropriate to the duties of a rating forming part of an engine-room watch; Understand orders and be understood in matters relevant to watch keeping duties

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Engine room alarm systems and ability to distinguish between the various alarms, with special reference to fire extinguishing gas alarms.

TASK: Respond to Alarms

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment

PERFORMANCE BEHAVIOR: Upon being alerted to each of the following alarms (audible and/or visual), the candidate will immediately identify the alarm and describe the appropriate response of a person in his/her position to the alarm:

- CO₂ discharge alarma
- Fire/smoke alarm;
- Vital and non-vital engine operational alarms, including lube oil alarms, cooling and boiler water alarms, fuel oil tank alarm, oily water separator alarm, and mist detector alarm.

- 1. Recognition of the alarm is immediate;
- 2. Identifies each alarm; and
- 3 Describes the appropriate actions or response to the alarm for a person in his/her position.
- 4. No safety violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-2-1A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: For keeping a safe boiler watch: Maintain the correct water levels and steam

pressures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe operation of boilers

TASK: Maintain Boiler Water Level

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Maintain the water level specified by the assessor for the main or the auxiliary boiler.

- 1. Maintains the main or the auxiliary boiler water level within +/- 2 inches of specified level.
- 2. No safety violations are observed.

A ship's officer who signs below attests that he/sl shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-2-1B

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: For keeping a safe boiler watch: Maintain the correct water levels and steam

pressures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe operation of boilers.

TASK: Maintain Boiler Steam Pressure

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Maintain the steam pressures specified by the assessor in the main or the auxiliary boiler.

- 1. Maintains the main or the auxiliary boiler steam pressure within +/- 5% of specified pressure.
- 2. No safety violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

RATING FORMING PART OF AN ENGINEERING WATCH **ASSESSMENT NO. RFPEW-2-1C FUNCTION:** Marine Engineering at the Support Level COMPETENCE: For keeping a safe boiler watch: Maintain the correct water levels and stea pressures KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe operation of boilers **TASK**: Read Boiler Gauges PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment. **PERFORMANCE BEHAVIOR:** Record readings from the following types of main or auxiliary boiler gauges: Pressure; Temperature; Water level. PERFORMANCE STANDARD 1. Correctly determines and records the pressures within +/- 2%, temperatures within +/- 2% temperature gauge, and water levels within +/- 1-inch. 2. No safety violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	e has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-2-1D (REQUIRED FOR STEAM VESSEL ENDORSEMENT)

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: For keeping a safe boiler watch: Maintain the correct water levels and steam

pressures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe operation of boilers.

TASK: Change Out Burners

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved

simulator or laboratory, given proper equipment

PERFORMANCE BEHAVIOR: Change out burners.

- 1. Checks clean burner is assembled properly;
- 2. Inserts clean burner;
- 3. Tightens all connections;
- 4. Opens fuel and air supply valves:
- 5. Observes flame and adjusts; and
- 6. Secures, removes, and cleans dirty strainer.
- 7. No safety violations are observed.

A ship's officer who signs below attests that he/sh shipboard assessor.	ne has met the	requirements to	qualify as a
Mariner		SSN No.	
Designated Examiner/ shipboard Assessor		License No.	MMD No.
Position	Vessel or Tra	aining Course	

ASSESSMENT NO. RFPEW-2-1E (REQUIRED FOR STEAM VESSEL ENDORSEMENT)

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: For keeping a safe boiler watch: Maintain the correct water levels and steam

pressures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Safe operation of boilers

TASK: Maintain Clean Burner Assembly

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved

simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Maintain a clean burner assembly

- 1. Disassembles dirty burner assembly;
- 2. Places tip in a container, furnace face upward, and soaks all other parts in kerosene until carbon is soft;
- Removes parts from kerosene;
- 4. Cleans parts of carbon and debris
- 5. Reassembles burner properly; and
- 6. All operations are in accordance with manufacturer's recommended procedures.
- 7. No safety violations are observed.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.			
Mariner	SSN No).	
Designated Examiner/ shipboard Assessor	License	MMD No.	
Position	Vessel or Training Co	ourse	

ASSESSMENT NO. RFPEW-3-1A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Operate emergency equipment and apply emergency procedures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Escape routes from machinery spaces

TASK: Locate Escape Routes

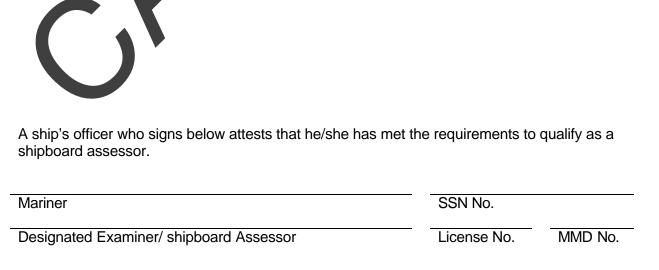
PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Locate all engine room escape routes, describe the emergency escape procedure for each and perform escapes using the shortest open route and up an escape trunk (if so equipped).

PERFORMANCE STANDARD:

- 1. Locates all emergency escape routes;
- 2. Describes the operations and procedures appropriate to each means of escape (including the use of emergency escape breathing devices); and
- 3. Demonstrates the correct means of escape via (a) the shortest open route, and (b) an escape trunk, if so equipped.
- 4. No safety violations are observed.

Position



Vessel or Training Course

ASSESSMENT NO. RFPEW-3-2A

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Operate emergency equipment and apply emergency procedures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Familiarity with the location and use of fire-fighting equipment in machinery spaces.

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TASK: Locate Fire Fighting Equipment

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Using the fire safety plan, the candidate will locate each piece of equipment in the machinery spaces, beginning with the nearest, state its purpose and describe its use or operation.

- 1. Locates the nearest piece of each item named from the list of fire fighting and emergency equipment; an
- 2. Correctly states the purpose and describes the use or operation of the item of equipment named.
- 3. No safety violations are observed.

A ship's officer who signs below attests that he/s shipboard assessor.	he has met the requirements to	qualify as a
Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
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Position	Vessel or Training Course	

ASSESSMENT NO. RFPEW-3-2B

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Operate emergency equipment and apply emergency procedures

KNOWLEDGE, UNDERSTANDING & PROFICIENCY: Familiarity with the location and use of

fire-fighting equipment in machinery spaces.

TASK: Put Fire Pump In Service

PERFORMANCE CONDITION: Aboard a ship, in port or underway, or in an approved simulator or laboratory, given proper equipment.

PERFORMANCE BEHAVIOR: Put a main or emergency fire pump in service.

PERFORMANCE STANDARD:

- 1. Checks or opens all required suction and discharge valves;
- 2. Correctly starts pump;
- 3. Allows fire pump discharge pressure to rise to operating pressure;
- 4. Checks running condition of pump and motor; and
- 5. Properly secures pump.
- 6. No safety violations are observed.



A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

Mariner	SSN No.	
Designated Examiner/ shipboard Assessor	License No.	MMD No.
Position	Vessel or Training Course	