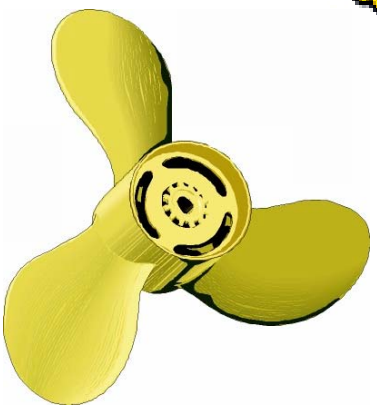
RATING FORMING PART OF AN ENGINEERING WATCH

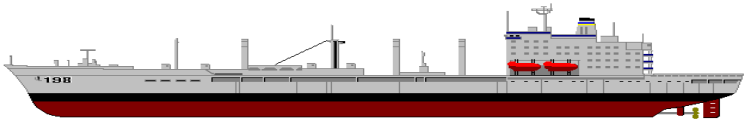
WORK & RECORD BOOK

REV – Sep 2006

CANDIDATE'S NAME

REVISED SEPTEMBER 2006





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The following paragraphs are from USCG Navigation and Vessel Inspection Circular 01-06.

Each mariner who commences training or sea service required by the STCW on or after August 1, 1998, or applies for STCW certification as RFPEW on or after February 1, 2002, must, under 46 CFR 12.02-7(e), hold documentation demonstrating competence in those skills specified in the table of Enclosure (2) of USCG Navigation and Vessel Inspection Circular 01-06.

Note: *Enclosure (2) referred above and below is part of this book. The skills listed in the tables of enclosure (2) are the Practical Assessment Control Sheets that must be signed off.*

Unless a mariner demonstrates proficiency in the skills required for competence of a RFPEW in enclosure (2) of USCG Navigation and Vessel Inspection Circular 01-06, the OCMI will not issue the STCW certification as stipulated in 46 CFR 12.15-3(e).

STCW Regulation IIV4, paragraph 3, states that this training shall be associated engine-room watch-keeping. Many U.S.-flag vessels use automated engine rooms, where non-licensed engine-department personnel work as day-workers. It is the Coast Guard's interpretation that service, training, and experience gained by engine-department day-workers on vessels with automated engine-rooms will be acceptable towards meeting the minimum proficiency for certification as ratings forming part of an engine-room watch when they have demonstrated their ability to perform the individual functions associated with watch-standing duties as detailed in enclosure (2) of USCG Navigation and Vessel Inspection Circular 01-06.

PURPOSE OF THIS BOOK

For engine personnel to advance and get the required STCW endorsement of Rating Forming Part of an Engineering watch, they must demonstrate their ability to do certain tasks. These tasks or competencies are listed in this Work and Record Book and must be "signed off" by appropriate personnel. There are three (3) sections, the first section is required by all personnel, the second by those on a steam plant and the third by those on a motor plant. Some competencies in sections two & three can be singed off on a Gas Turbine plant and they are identified in this book.

It is important that all parties, the RFPEW candidate, the licensed engineer/assessor and the chief engineer follow the guidance in this book.

RATING FORMING PART OF A ENGINEERING WATCH

WORK & RECORD BOOK

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ASSESSOR'S MANUAL

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A PRACTICAL MANUAL FOR ASSESSORS

Introduction

The STCW Challenge

Recent enactment of the *Standards of Training, Certification and Watchkeeping (STCW) for Seafarers Code* by the *International Maritime Organization (IMO)* has led to new requirements in conducting assessments of mariner proficiency. The STCW Code identifies a broad set of proficiency areas comprised of skills, knowledge, and abilities. It further directs maritime industries in its member nations to assess mariner proficiency in selected areas on the basis of practical demonstration. Assessors will be responsible for administering assessments to mariners and ensuring that valid and reliable results are obtained.

The Role of the Assessor

As an assessor, you will be responsible for assessing the ability of candidates to perform a task, duty, or responsibility properly. You will use established criteria and your professional judgment to determine whether the candidate has demonstrated an acceptable level of proficiency. You will use assessment procedures that have been carefully developed, reviewed, and approved prior to the assessment. You should personally observe the mariner's performance and determine the outcome of the assessment.

An assessor should hold the level of license, endorsement, or professional credential required for the proficiency being assessed. In addition, the assessor should review the assessment materials and receive a basic introduction to techniques and issues associated with assessing mariner proficiency through practical demonstration.

Purpose of Manual

The purpose of this manual is to provide assessors with guidelines for conducting valid and reliable mariner assessments based on practical demonstration. This manual is not intended to provide comprehensive instruction in the full range of assessment issues. Rather, it is intended as a focused introduction and reference to selected factors that affect validity (job criticality) and reliability (consistency) while conducting such assessments.

The process and guidance presented in this manual conform to intentional standards and domestic regulations, especially the IMO's STCW Code and the U.S. Coast Guard's Navigation and Vessel Inspection Circulars (NVICs) that address implementation of the STCW Code within the United States. The reference section of this manual lists specific STCW documents, applicable NVICs, and other source documents that cam be referred to for more detailed guidance in developing and conducting mariner assessments based on practical demonstration.

Components of an Assessment Procedure

Any assessment procedure that is designed to meet IMO and U.S. Coast Guard requirements for practical demonstration of mariner proficiency will typically be comprised of several common components: ***Competencies*** or ***assessment objectives, performance condition or assessment condition, performance behavior*** or ***performance measures, performance standards,*** and ***scoring procedures***. As an assessor, you should familiarize yourself with these components, referring to the specific assessment procedures you will be using.

When conducting an assessment, you will evaluate a candidate's ability to meet pre-defined *competencies.* These competencies or objectives can be derived from the STCW Code and U.S. regulations, as well as technical manuals, job instructions, textbooks, and task analyses. Each assessment objective consists of one or more separate ***actions.*** These actions are listed in STCW Tables as ***knowledge, understanding and proficiency***. An example *competency or assessment objective* from a Lookout assessment is "describe lookout duties and responsibilities." As part of this objective, the candidate must demonstrate knowledge of the procedures for reporting sightings, including identifying and describing the procedure and reporting all relevant information. An example *competency or objective* from a Prepare Main Engine for Operation assessment is "perform engine auxiliaries pre-start checks." To meet this objective, one action the candidate must perform is to determine the status of the main engine controls and ensure that they are appropriate for starting the main engine.

The candidate's performance on the stated assessment objectives will be evaluated under various *performance* or *assessment conditions.* Conditions for the Lookout assessment, for example, include the presence of appropriate targets to be sighted, clear visibility during daylight and at night, and restricted visibility. The performance conditions will be explicitly defined in the assessment procedures.

Each assessment objective will have one or more corresponding sets of performance behavior or measures and performance standards. ***Performance behavior or measures*** include observation and recording of specific mariner actions, or the outcome of those actions. Table I below provides a samp1e of mariner actions, performance behavior or measures, performance standards, and a scoring checklist from a Helmsman assessment procedure. It shows three of the five actions or *knowledge, understanding and proficiency* for the competency or assessment objective "Demonstrates use of magnetic and gyro compasses in open water." The first *performance behavior* in this table is 'Report of compass comparison," which is measured when assessing the action "Compare and report course by gyro and magnetic compass after a course change." Here, the assessor is required to record the mariner's report of the compass comparison, then apply the corresponding performance standard.

Performance standards specify the level of performance that is considered an acceptable or target level. Continuing with the example in the first row of Table 1, there are two performance standards that are to be applied in scoring the corresponding performance measure. In this case, the mariner is required to both (1) make a report after the course change and (2) provide a reported magnetic reading that is +/- 2 degrees of actual.

Scoring procedures are used in scoring individual actions, as well as sets of scores to determine the outcome of performance assessments. Both of these types of scoring procedures should be explicitly defined in the assessment procedures. Pass/fail is the most common scoring procedure for individual actions. In this case, a candidate obtains a passing score for an action by passing all performance standards corresponding to that action. Scoring procedures applied to sets of multiple scores will most commonly be based on some range of acceptable scores. However, assessments often involve critical objectives that must be passed or the candidate fails the entire assessment.

For example, a candidate undertaking an assessment of his ability to start the main engine must be able to correctly place the emergency stop valve in the run position. This action is essential to safe job performance, so a candidate must be able to perform it to pass the assessment.

Table 1. Example of Actions, Performance Measures, and Performance Standards from the Helmsman Assessment

Knowledge, understanding and proficiency	**Performance Behavior**	**Performance Standard**	**Score**
Action	**Performance Measure**	**Performance Standard**	**Score**
Compare and report course by gyro and magnetic compass after a course change	Report of compass comparison	**Performance meets all standards:** ☐ Report after course change ☐ Report magnetic reading to be +/- 2 degrees of actual	**Pass** **Fail** **N/A**
Compare and report course by gyro and magnetic compass periodically	Report of compass comparison	**Performance meets all standards:** ☐ Report at the time interval specified in the standing orders or company policy ☐ Comparison of gyro and magnetic compass to be unprompted by assessor/watch officer if consistent with company procedures ☐ Reported magnetic reading to be +/- 2 degrees of actual.	**Pass** **Fail** **N/A**
Steer by magnetic compass in moderate weather.	Maintain a steady course	☐ Course to be maintained at +/- 5 degrees of ordered course for 30 minutes, relying solely upon the magnetic compass In adverse winds or current, allowance can be made for a less stringent standard	**Pass** **Fail** **N/A**

Overview of the Assessment Process

You should follow the same basic series of five steps in conducting an assessment, even if you are conducting assessments of a number of mariner proficiencies. The ***first step*** is to prepare for the assessment by reviewing and ensuring the required assessment conditions and scheduling the assessment at an appropriate time (e.g., at night for certain Lookout objectives). The ***second step*** is to brief the candidate before the assessment. This involves verifying the candidate's readiness to undertake the assessment and then briefing the candidate on the assessment objectives, measures, standards, and scoring. The ***third step*** involves observing the candidate's performance during the assessment and recording the results. For the ***fourth step***, the assessment outcome is determined by scoring each performance measure and tallying the scores across objectives. The ***fifth and final step*** is to debrief the candidate following the assessment. Figure 1 depicts the steps involved in conducting an assessment.

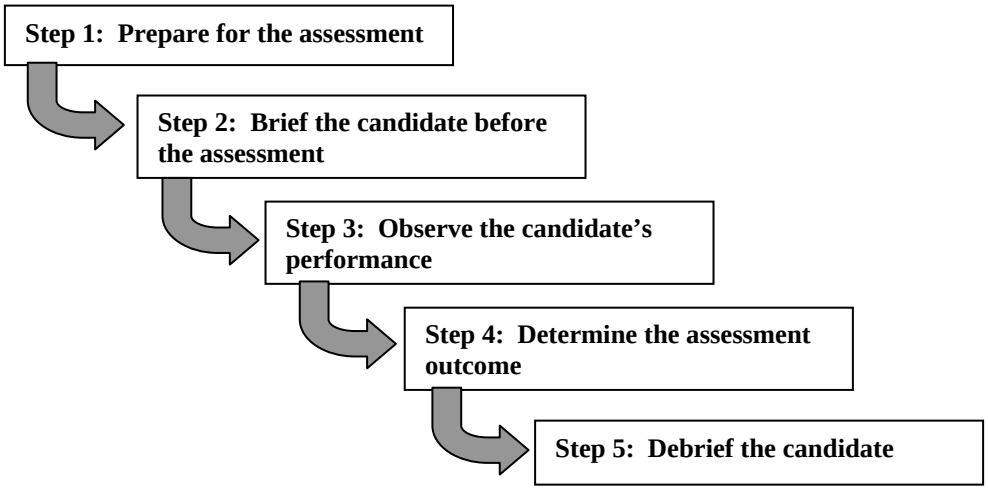

Figure 1. Steps involved in conducting mariner assessments based on practical demonstration.

The remainder of this manual consists of guidelines for conducting mariner assessments. The guidelines are organized around the five steps involved in conducting mariner assessments. At each step, guidance is provided regarding factors to consider in preparing for and conducting assessments, followed by a general checklist of issues *to* consider.

Guidelines for Conducting Mariner Assessments

As an assessor, you should always strive to conduct valid and reliable assessments. An assessment is *valid* when it accurately measures the job-critical knowledge, skills, and abilities required for proficient job performance. An assessment is *reliable* when it consistently obtains the same results across mariners with comparable skills.

How do you know if you are prepared to conduct a valid assessment that will accurately measure the job-critical knowledge, skills, and abilities required for proficient job performance?

Your assessment will be valid if the conditions of assessment reasonably reflect a representative range of working conditions and requirements. Some questions you should consider in determining whether you are prepared to conduct a valid assessment are listed below.

- Will the assessment be conducted under realistic working conditions that adequately assess the mariner's abilities to perform his or her duties on the job?
- Will the mariner be required to demonstrate the skills and knowledge that are identified in the assessment as critical to proficiency?
- Will the mariner be required to rely on his or her own skills and knowledge?

How do you know if you are prepared to conduct a reliable assessment that will consistently obtain the same results across mariners with comparable skills?

Your assessment will be reliable if you carefully follow prescribed assessment procedures that are designed to ensure consistent results from one assessment to the next. Some questions you should consider in determining whether you are prepared to conduct a reliable assessment are listed below.

- Have you reviewed the instructions in the assessment package to ensure that you are prepared to carefully follow prescribed assessment procedures?
- Will you provide the candidate with the information he or she needs and answer any appropriate questions that he or she may have?
- Are you prepared to accurately observe and record all mariner performance, as instructed in the assessment package?

Step 1: Prepare for the Assessment

Ideally, you should begin preparing for an assessment several days before it is scheduled. The first activity is to coordinate the assessment with the candidate(s) to ensure that they are properly prepared and qualified to take part in the assessment. Each assessment procedure should specify candidate prerequisites for assessment, in terms of prior training, experience, licenses, and successful completion of other related assessments. If these are absent, they should be discussed and established by those responsible for assessment in your organization. You should verify that a candidate meets all prerequisites for an assessment. In addition, you should determine that a candidate is scheduled to be onboard for an adequate period of time to complete the assessment, which will range from an hour to days or weeks, depending upon the specific assessment procedures.

The second activity involved in preparing for the assessment is to consider and plan for the required conditions. Carefully read the assessment conditions listed in the assessment procedures. Prior to conducting an onboard assessment, check your passage plan to determine when the required conditions might be present. Plan to schedule your assessment to match the availability of these conditions, if possible. Common conditions that can often be planed for in advance are being underway at sea, maneuvering in restricted waters, or being moored. Other conditions, such as restricted visibility or heavy seas, cannot be planned for in advance and can only be taken advantage of when the conditions arise. When you have prepared a schedule, inform the candidate(s), the relevant watch officer(s), and other personnel of the date and time(s) of the assessment so that they can plan their activities accordingly.

The third preparatory activity is to check all equipment required for the assessment and ensure that it is operational and available. The assessment procedures should specify the equipment required to assess a particular proficiency. If an engineering assessment involves checking equipment status, make sure you know the normal range for each variable and record this information so that you can refer to it during the assessment. As part of your check of equipment, you should also review all applicable safety precautions and procedures to ensure full adherence to them.

General Checklist for Assessment Preparation

- ❑ Gather and review all assessment materials.
- ❑ Verify that the candidate meets the assessment prerequisites.
- ❑ Check the candidate's duty schedule.
- ❑ Ensure that the appropriate conditions will be present for the assessment
- ❑ Schedule the assessment and inform all affected personnel.
- ❑ Prepare the assessment area(s).
- ❑ Prepare and arrange the necessary equipment, and ensure that it is operational.
- ❑ Determine the necessary safety precautions.

Step 2: Brief the Candidate before the Assessment

The pre-assessment briefing should take place at least one day prior to the assessment (earlier if at all possible). This will help both you and the candidate to be well prepared for the assessment. During this briefing, you should provide the candidate with a copy of the *Candidate worksheet guides*. The *Candidate worksheet guides* are prepared especially for the candidate, focusing on the issues that will be of concern to that individual. The *Shipboard Practical Assessment Worksheet* summarizes the assessment objectives and all of the actions required for each objective. It is also the document on which you will record the candidate's final scores for each objective.

Begin the briefing with a discussion of the candidate's prior experience, training, and qualifications. At this time, you should verify that this candidate is both qualified and willing to undertake the assessment. If you both agree the candidate is ready for the assessment, then continue with the assessment process. If not, arrange for additional on-the job or simulator training and set a date for another review of the candidate's qualifications.

Review the conditions of the assessment with the candidate. Specifically, discuss the different operational conditions under which assessment will occur. You should also discuss the period of assessment. ***Some assessments can be completed in a single, relatively brief period of time. Other assessments require repeated observation, taking advantage of available conditions, such as restricted visibility, as they occur.***

Safety is of paramount concern during the assessment. Because of this, you should remind the candidate that it is permissible to ask questions during the assessment. This can help to reduce the risk of an unsafe act during the course of the assessment. For all assessments, ensure that the candidate has the proper equipment to carry out the assessment. Inform the candidate that an assessment will be stopped at any time if you, the assessor, judge that safety conditions are being violated for any reason.

General Checklist for briefing the Candidate before the Assessment

- ❑ The candidate should review prior to the planned assessment his or her worksheet guides
- ❑ Discuss the candidate's readiness for the assessment.
- ❑ Review the assessment procedures with the candidate and answer any questions.
- ❑ Discuss the desired outcome(s) and consequences of failing to perform part or all of the assessment.
- ❑ Advise the candidate of the conditions and schedule of the assessment.
- ❑ Review the circumstances under which the assessment will be terminated, due to safety concerns.

Step 3: Observe the Candidate's Performance

The third step in the assessment process is to observe the candidate's performance during the assessment. Remember that you must continuously observe the candidate. Throughout the assessment, require the candidate to adhere to standard procedures, except when assessment procedures require demonstration of knowledge or skills different from those standard procedures. For example, a company may use points to report sightings, but a candidate may also be asked to demonstrate knowledge of the relative bearing system as part of the Lookout assessment.

Specific assessment objectives, performance measures, performance standards, and scoring procedures will be included in each assessment. Your consistent application of these procedures will ensure that you conduct a valid and reliable assessment. However, adherence to these procedures may require some flexibility on your part. Specifically, in some cases you may be required to remember the performance of the candidate for some time before you are able to record and score his or her performance. In addition, there may be times during the assessment when you will need to ask the candidate what he or she is doing. You should try to limit your questions during the candidate's performance, so that you minimize the amount of coaching the candidate receives from you.

Typically, an assessment will include a number of questions regarding the candidate's knowledge of rules and procedures pertaining to the duties under assessment. In addition, there will commonly be a number of questions regarding the candidate's performance that must be asked for clarification. Generally, a good time to ask all of these questions is following the candidate's demonstration of practical skills. At this point, you can ask specific questions you have about the performance you observed and use these questions as introductions, when appropriate, to more general questions about knowledge and rules included as part of the assessment.

Remember that, in order to maintain assessment validity and reliability, candidates should be assessed on their ability to perform their job tasks and duties and to demonstrate their knowledge of job procedures and rules.

Avoid training candidates to successfully complete an assessment rather than proficiently perform their job. Also avoid allowing candidates to observe assessments of other mariners when this will provide them with an unfair advantage during subsequent assessment.

Finally, it is important to remain constantly vigilant regarding operational effectiveness and safety. Assessments should be conducted only where they do not adversely affect the normal operation of the ship. In addition, assessments must be terminated whenever safety conditions are being violated.

General Checklist for Observing the Candidate's Performance

- If a safety violation occurs, terminate the assessment immediately.
- Ensure that the candidate can concentrate on the task at hand.
- Do not allow other crewmembers to interfere with the assessment.
- Ensure realistic assessment conditions with a normal working environment.
- Continuously observe the candidate during the assessment. Record the observed performance and apply the performance standards as soon as practical during the assessment.
- Require that standard procedures be adhered to, except when assessment procedures require demonstration of knowledge or skil1 different from these procedures.
- Avoid asking leading questions. Try to keep your questions fair but general in nature.
- Avoid giving the candidate unsolicited assistance, but respond to appropriate questions and provide appropriate equipment when required.
- Remain objective and maintain positive control of the operation at all times.

Step 4: Record Results and Determine Assessment Outcome

The fourth step in the assessment process is to determine the assessment outcome. To do this, record the candidate's performance on each *Practical Assessment Control Sheet* and then apply the scoring procedures specified in the assessment procedures. ***Remember that if the candidate incorrectly performs any of the critical, required actions, he or she automatically fails the entire assessment.*** Finally, determine and document the outcome of the assessment, transferring the final results to appropriate block on the *Practical Assessment Control Sheet* located in the *Work & Record book.*

The *Shipboard Practical Assessment Worksheets* enclosed in the *Work & Record book* will be sent to MSFSC N1 (Training) when all assessments are met. A copy of the assessments should be provided to the mariner. The assessor should also retain information on whom he or she has assessed and the results.

General Checklist for Determining Assessment Outcome

- Record performance on the appropriate *Shipboard Practical Assessment Worksheet*
- Strictly adhere to the prescribed performance standards and scoring procedure(s).
- Sign off the appropriate block on the appropriate page of the *Shipboard Practical Assessment Worksheet & Record.*

Step 5: Debrief the Candidate

The fifth and final step in the assessment process is to debrief the candidate as soon as possible after the assessment. During this debriefing, you should restate the assessment objectives and discuss the candidate's performance on each objective. A good strategy for beginning a debriefing is to review the candidate's positive accomplishments. The candidate will then likely be in a better frame of mind to hear any comments regarding areas needing improvement

If the candidate failed to demonstrate proficiency, you may work together with him or her to develop an improvement plan to prepare for reassessment. Conditions for conducting reassessments should be specified in the assessment procedure. If these are absent, they should be discussed and established by those responsible for assessment in your organization. Specific issues to consider are: (1) the period between initial assessment and reassessment, and (2) any changes in the performance standards and scoring procedures that are adopted for reassessment.

General Checklist for Debriefing the Candidate

- Debrief the candidate as soon as possible after the assessment.
- Restate the assessment objective(s).
- Focus on positive accomplishments first.
- Identify areas needing improvement.
- If the candidate failed to demonstrate proficiency, jointly develop an improvement plan to prepare for reassessment.

GLOSSARY

Assessor Anyone who conducts an assessment or evaluation of an individual's proficiency The term *assessor is* used in many discussions of STCW requirements, including the STCW Code and NVIC 4-97 on company roles and responsibilities. The term *designated examiner is* used for *examiner* in the United States implementing regulations.

Assessment The process of evaluating whether an individual's performance meets established *proficiency criteria.* The terminology used for this process in the United States implementing regulations includes *examination* for knowledge, and an a *assessment* based on *practical demonstration,* as witnessed by a *designated examiner.*

Performance or Assessment Conditions The *performance* or *assessment conditions* define the setting, tools, references, aids, and safety precautions that are required for an assessment of a candidate's proficiency.

Competencies or Assessment Objectives The goals for the performance-based assessment of proficiency based on the knowledge, skills, and abilities required by the job. A complete *Competency* or *assessment objective* description includes the required mariner performance, the conditions of assessment, and the standards of performance for successful accomplishment of the objective.

Assessment Procedures The activities that are conducted in administering the assessment of a candidate's proficiency. The term *assessment procedure* can describe either the actions taken or the written instructions and activity descriptions that are used in conducting an assessment.

Designated Examiner A person who has been trained or instructed in techniques of training or *assessment* and is otherwise qualified to administer performance assessment procedures. In practice. the *designated examiner* evaluates whether the candidate's performance meets *established proficiency criteria* to earn credit toward the license, document, or endorsement. Further details on the qualifications of *designated examiner* can be found in NVIC 6-97.

Duty An ongoing responsibility within a job that usually requires the performance of multiple tasks (e.g., *Officer in Charge of the Engineering Watch, Lookout,* and *Helmsman).*

Evaluation Criteria The *evaluation* criteria comprise the general *standards of competence.* In practice, the *evaluation criteria* are further defined on the basis of *performance measures, performance standards,* and proficiency criteria.

Job An employment post consisting of a cluster of related work responsibilities and duties (e.g., *Chief Engineer, Third Mate, Able-bodied Seaman).* In the STCW Code, a job is further defined on the basis of licensure level (e.g., Officer in charge of a navigational watch on ships of 500 gross tonnage or more).

Knowledge The learned concepts, cues, facts, rules, and procedures that are necessary for proficient performance of a task (e.g., *knowledge of algebra, knowledge of the Navigation Rules, knowledge of procedures for starting the main engine).*

Objective Measure A measure that relies primarily upon measurement apparatus that can be calibrated to yield highly consistent and accurate measurement results.

Performance Behavior or Measure The procedures used for observing and recording mariner actions, or the outcome of those actions. *Performance behavior* or *measures* record either the process of performance or the product of performance.

Performance Standard The standard established for *individual performance measures. Performance measures* and *performance standards* are combined on the basis of *scoring procedures* to establish proficiency criteria for an assessment objective.

Proficiency An individual's demonstrated ability to meet job performance requirements, as established on the basis of *performance measures, performance standards,* and *proficiency* criteria.

Proficiency Criteria The scoring procedures and standards applied m determining the proficiency level of a candidate on the basis of *performance behavior/measures and performance standards.*

Qualified Instructor According to the United States implementing regulations: "The person who has been trained or instructed in instructional techniques and is otherwise qualified to provide required training to candidates for licenses, documents, or endorsements." Further details on the qualifications of *qualified instructors* can be found in NVIC 6-97.

Reliability The *consistency* of a measurement procedure. In the context of assessment, *reliability* can be generally defined as the consistency of the assessment outcome when applied under comparable conditions Reliable assessments have well-defined assessment conditions, administration procedures, performance measures, performance standards, scoring procedures, and proficiency criteria. The reliability of an assessment establishes the maximum level of assessment *validity* possible. That is, an assessment can not be any more valid than it is reliable.

Scoring Procedures The defined procedures for combining individual *performance measures and performance standards* that are conducted in the application of *proficiency criteria.*

Subjective Measure A measure that relies primarily upon an assessor's direct observation and interpretation of mariner performance to determine the assessment outcome.

Task A single, observable work assignment that is independent of other actions and supports successful job performance. A task must be observable, be a complete work assignment, have a specific beginning and end, and be measurable by its intended product or outcome.

Validity The extent to which a measure represents what was intended to be measured. In the context of assessment, *validity* can be defined as the degree to which successful completion of an assessment accurately predicts successful performance on the job. The maximum validity of an assessment is established on the basis of its *reliability.* That is, an assessment cannot be any more valid than it is reliable.

PRACTICAL ASSESSMENT CONTROL SHEETS

RATING FORMING PART OF AN ENGINE WATCH

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PRACTICAL ASSESSMENT CONTROL SHEETS INSTRUCTIONS

ASSESSOR'S MANUAL — The assessor must have read and understood the manual provided in this workbook. If need be the assessor should review the manual prior to each assessment.

LICENSE REQUIREMENT — Aboard MSFSC ships the assessor must be a licensed engineer. Third Engineers are allowed to sign-off assessments

COMPLETION TABLES — The following is guidance for properly filling tables provided in this section

This table (PERFORMANCE STANDARD) is to be used as scoring for the assessment. The candidate must pass all parts of the PERFORMANCE STANDARD table in order to pass the assessment.

PERFORMANCE STANDARD	SAT
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.)	**x**
2. Leaves area safe and secure	**x**
3. Reports all unusual findings or unsafe conditions	**x**
4. Cleans the suction strainer	**x**
5. No other safety violations are observed	**x**

CANDIDATE PASSES ASSESSMENT

PERFORMANCE STANDARD	SAT
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.	**x**
2. Leaves area safe and secure	**UNSAT**
3. Reports all unusual findings or unsafe conditions	**x**
4. Cleans the suction strainer	**x**
5. No other safety violations are observed	**x**

CANDIDATE FAILS ASSESSMENT

THE FOLLOWING TABLE IS ONLY TO BE FILLED OUT AND "SIGNED" OFF IF THE CANDIDATE SUCCESSFULLY PASSES ALL PARTS OF THE PERFORMANCE STANDARD. THIS CERTIFIES THAT THE CANDIDATE PASSES THIS PROFICIENCY.

DATE	
SHIPS NAME	
ASSESSOR – PRINT NAME	**SIGNATURE**
LICENSE	**LICENSE NUMBER**

ALL PROPULSION MODES

The assessments in this section are required for both the Steam and Motor Endorsements

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-1*} RFPEW-1-1A (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Inspects, monitors, and checks system parameters of all auxiliary systems and machinery, and main propulsion machinery, checks operating procedures, temperatures, flow and level indicators and collects readings for log book entries;	
2. Inspects bilges and pumps as necessary; notes piping condition in bilges and conducts visual inspection of sea chests;	
3. Checks machinery spaces for all signs of fire, flooding, loss of lighting, and electric shock hazard;	
4. Wipes up all spilled oil;	
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, as well as loose fittings, nuts, bolts, flanges, clamps, hangers, and connections;	
9. Checks for any gear adrift or machinery guards not in place;	
10. Notifies watch engineer of any unusual or unsafe conditions;	
11. Takes appropriate action to correct any unusual or unsafe conditions; and	
12. Ensures that no safety violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*ALL-1*} RFPEW-1-1A (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Properly make a round during watch

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-2*} RFPEW-1-1 C/2 (ALL PROPULSION MODES)

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 watch keeping procedures

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 marine diesel oil purification plant

PERFORMANCE STANDARD:	SAT
1. Checks purifier's operational status;	
2. Checks the dirty-oil inlet;	
3. Checks the dirty-oil inlet pressure;	
4. Checks the clean-oil discharge pressure;	
5. Checks the purifier-gear drive oil sump level;	
6. Checks heater steam supply pressure, as applicable;	
7. Checks machine for vibration;	
8. Checks speed indicator for proper bowl speed;	
9. Determines the point of suction to be either engine sump, or settling tank, or other tank;	
10. Determines the point of discharge to be either engine sump or other lube oil storage tank;	
11. Checks for any unusual conditions or noises;	
12. Notifies the watch engineer of any unusual or unsafe conditions; and	
13. Ensures that no safety or pollution violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*ALL-2*} RFPEW-1-1 C/2 (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Monitor lube oil or marine diesel oil purification plant

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-3*} RFPEW-1-1D (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Checks plant's operational status;	
2. Checks compressor oil level and adds oil as necessary;	
3. Checks compressor oil pressure, if applicable;	
4. Checks air-compressor air-inlet filter pressure differential;	
5. Checks air-compressor discharge pressure and compressed air service tank pressures;	
6. Checks for any unusual conditions or noises;	
7. Blows down intercoolers, after coolers (if applicable), and receivers, checks associated refrigerated filter system and looks for fouling of cooling fins;	
8. Notifies the watch engineer of any unusual or unsafe conditions;	
9. Identifies emergency cross-connect between ship's service air and control air systems (if applicable);	
10. Identifies valves to direct “air on deck” and their open/closed status;	
11. Identifies settings of standby equipment; and	
12. Ensures that no safety or pollution violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*All-3*} RFPEW-1-1 D (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Monitor compressed air plants

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-4*} RFPEW-1-1E (ALL PROPULSION MODES)

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 watch keeping procedures

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:	SAT
1. Checks plant's operational status;	
2. Checks compressor suction pressure;	
3. Checks compressor discharge pressure;	
4. Checks compressor-oil level;	
5. Checks compressor-oil pressure and control-oil pressure;	
6. Checks receiver level;	
7. Checks liquid-line sight glass flow condition;	
8. Checks refrigerated box temperatures and condition of the evaporator coils and drains for icing;	
9. Notes the condition of all refrigerated box door gaskets and operation of circulating fans;	
10. Checks condenser sea-water inlet and outlet temperatures;	
11. Checks chilled-water pump suction and discharge pressures, if applicable;	
12. Checks chilled-water inlet and outlet temperatures, if applicable;	
13. Checks chilled-water expansion-tank level, if applicable;	
14. Notifies the watch engineer of any unusual or unsafe conditions; and	
15. Ensures that no safety or pollution violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*ALL-4*} RFPEW-1-1E (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Monitor refrigeration and air conditioning plants

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-5*} RFPEW-1-1F (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Determines the liquid level of vented tanks and low-pressure pressure vessels fitted with tubular sight glasses;	
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 at least two vented tanks (fuel and/or lube oil and/or water), fitted with sounding tubes, using an ullage 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; or other remote reading level indicating device; and	
7. Determines the oil/water interface level of the slop tank.	

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-6*} RFPEW-1-1J (ALL PROPULSION MODES)

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

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

NOTE: *Assessment Control Sheet may need to be modified as necessary to cover alternative equipment, such as: roller bearings, water lubricated stern tube, etc.*

PERFORMANCE STANDARD:	SAT
1. Checks all line shaft bearing oil sump levels;	
2. Checks all line shaft bearing oiling rings for rotation with shaft;	
3. Checks oil lubricated stern tube lube sump tank level where appropriate;	
4. Checks oil lubricated stern tube lube oil pressure where appropriate;	
5. Checks oil lubricated stern tube oil temperatures where appropriate;	
6. Checks oil lubricated stern tube inboard shaft seal for leakage if appropriate;	
7. Notifies watch engineer of any unusual or unsafe conditions; and	
8. Ensures that no safety violations are observed.	

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-7*} RFPEW-1-1K (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Monitor the steering gear

PERFORMANCE STANDARD:	SAT
1. Correctly compares rudder angle mechanical sliding scale with electrical indictor, if fitted;	
2. Monitors steering gear for leaks, noises, pressure, temperature and oil levels;	
3. Tests communication devices;	
4. Observes various linkages for wear, loosening, or lost motion;	
5. Notes glands on main rams and rudderpost for leakage;	
6. Adds oil to hydraulic sumps as required; and notes quantity added;	
7. Notifies the watch engineer of all unusual or unsafe conditions; and	
8. Ensures that no safety violations have occurred.	

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-8*} RFPEW-1-2A (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Replenish oil to equipment sump

PERFORMANCE STANDARD:	SAT
1. Determines the need to add oil;	
2. Obtains an adequate amount of clean oil of proper grade and type;	
3. Removes the filler cap or plug;	
4. Pours oil through the filler cap or oil filler plug opening;	
5. Checks the oil level and verifies that it stands at the specified level;	
6. Replaces the filler cap or plug and leaves the area clean; and	
7. Ensures that no safety violations have occurred.	
8. Notifies watch engineer of quantity added	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-9*} RFPEW-1-2B (ALL PROPULSION MODES)

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 watch keeping procedures

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:	SAT
(A) GREASE LUBRICATED BEARING FITTED WITH ZIRC OR ALEMITE FITTING:	
1. Determines from appropriate lubrication chart the type and grade of grease to be used;	
2. Obtains grease gun with appropriate grease, hoses, and connections;	
3. Removes pipe plug from bearing housing if fitted;	
4. Wipes grease 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 grease fitting;	
7. Slowly pumps in grease until grease just begins to appear at bearing lip seals. If high resistance is met, ceases attempt and notifies watch engineer;	
8. Removes hose fitting from bearing grease fitting;	
9. Wipes zirc fitting free of grease with a rag; and	
10. Replaces pipe plug in bearing housing if fitted after 20 minutes of operation to allow excess grease to escape.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

PERFORMANCE STANDARD:	**SAT**
(B) 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 hardened grease;	
4. Removes cap from grease cup;	
5. Wipes out grease cap with rag;	
6. Fills grease cap with grease;	
7. Reinstalls cap onto grease cup gently screwing cap on to force grease into bearing housing;	
8. Continue as necessary until grease begins to ooze out of drain hole;	
9. Wipes excess grease from bearing housing with a rag; and	
10. Reinstalls drain plug.	

(Continued)

ASSESSMENT NO. {*ALL-9*} RFPEW-1-2B (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Lubricate grease-lubricated bearings

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-10*} RFPEW-1-2C (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Clean a sea-water strainer

PERFORMANCE STANDARD:	SAT
1. Ascertains the need for cleaning a duplex strainer;	
2. Ensures that the selector handle is position over the element housing not being cleaned;	
3. Insures strainer housings depressurized and that selector plug is not leaking;	
4. Loosens idle strainer lid fasteners or hold down dogs as appropriate;	
5. Removes fasteners or positions dogs clear out of the way;	
6. Lifts off strainer lid and sets aside;	
7. Lifts out strainer basket;	
8. Cleans strainer basket;	
9. Reinstalls strainer basket;	
10. Inspects housing and lid mating surfaces; scrapes, cleans and replaces gasket as necessary;	
11. Replaces and aligns lid on top of strainer housing ;	
12. Tightens bolts or firmly tightens hold down dogs;	
13. Closes off strainer cover vent;	
14. Slowly changes over strainer; checking for housing leaks, significant pressure drop, etc;	
15. Cracks open, then closes off vent to bleed off trapped air; and	
16. Notifies watch engineer of any unusual or unsafe conditions.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*ALL-10*} RFPEW-1-2C (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Clean a sea-water strainer

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-11*} RFPEW-1-2D (ALL PROPULSION MODES)

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

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

PERFORMANCE BEHAVIOR: Assists in cleaning 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

PERFORMANCE STANDARD:	SAT
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 adheres to all safety procedures (verifies tag-out procedures, notifications, safe lifting techniques, etc.);	
2. Assists in disassembly of purifier using appropriate tools as provided;	
3. Cleans all sludge deposits from individual disks, bowl top, and bowl;	
4. Assists in reassembling purifier, reinstalling all disks and in numerical order;	
5. Leaves area safe and secure;	
6. Reports all unusual findings or unsafe conditions;	
7. Cleans the suction strainer, if applicable; and	
8. Ensures that no safety violations are observed.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*ALL-11*} RFPEW-1-2D (ALL PROPULSION MODES)

PERFORMANCE BEHAVIOR: Assists in cleaning 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

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-12*} RFPEW-1-2E (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Adjust a gate or globe valve stuffing box gland
Note: The candidate is not expected to start or stop the OWS, rather to monitor it during operation.

PERFORMANCE STANDARD:	SAT
1. Determines for the need to take up on gate or globe stuffing box gland;	
2. Checks for bent or scored stem;	
3. Checks valve for ease of operation, ensuring that it is candidate for taking up on the gland without the necessity of adding packing or re-packing the valve;	
4. Checks position of gland to determine if it may be further tightened;	
5. Tightens alternately each gland nut, by one flat at a time and evenly until stem to bonnet leakage ceases;	
6. Inspects the gland to insure that it is perpendicular to the valve stem; and	
7. Checks valve opening/closing for ease of operation ensuring that operation is not unacceptably difficult.	

DATE	
SHIPS NAME	
ASSESSOR – PRINT NAME	**SIGNATURE**
LICENSE	**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-13*} RFPEW-1-2F (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Determines from the watch engineer or equivalent, the order in which to fill the fresh water tanks;	
2. Lines up filling system properly;	
3. Retrieves properly designated hose from storage and sanitize hose fittings and all connections;	
4. Flushes out dock connection;	
5. Assists taking water sample for testing before taking on water;	
6. Properly takes on fresh water;	
7. Secures fresh water manifold after task is complete; and	
8. Uses proper procedure to uncouple, drain, and stow hose.	
9. Notifies watch engineer of completion and of any meter readings/tank soundings	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-14*} RFPEW-1-3A (ALL PROPULSION MODES)

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

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 tank from one of the following locations:

- Shaft alley
- Engine room
- Cargo hold

PERFORMANCE STANDARD:	SAT
1. Correctly lines up the bilge system to bilge well(s) to be pumped and to the correct holding tank in accordance with ship's procedures;	
2. Pumps the bilges until steady indication that bilges are dry (loss of pump suction); while monitoring bilge water collection tank level to prevent overflow	
3. Provides tank-level data and start/stop times to the officer-in-charge of the engine watch; and	
4. Ensures that no safety or pollution violations have occurred.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-15*} RFPEW-1-3B (ALL PROPULSION MODES)

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

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

PERFORMANCE STANDARD:	SAT
1. Checks oily-water separator's operational status;	
2. Checks bilge-waste holding tank level;	
3. Checks oily-water separator chamber pressure or vacuum;	
4. Checks filling related pressure vacuum;	
5. Checks overboard discharge water pump pressure;	
6. Monitors oil-content monitor: **(a)** ensures that equipment is not bypassed, sampling line is open, and flushing water is not being supplied to sensor; **(b)** automatic valves are not operated in manual mode or disconnected from controlling devices; and **(c)** no temporary hoses are connected or used during operation; checks for any unusual conditions or noises;	
7. Notifies the watch engineer of any unusual or unsafe conditions and;	
8. Ensures that no safety or pollution violations have occurred.	

DATE	
SHIPS NAME	
ASSESSOR – PRINT NAME	**SIGNATURE**
LICENSE	**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-16*} RFPEW-1-3C (ALL PROPULSION MODES)

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

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

Note: *Assessment control sheet may be modified with regard to monitoring sewage holding tanks in lieu of a marine sanitation treatment system, such as vessels without auxiliary and/or waste heat boilers and/or with distilling plants.*

PERFORMANCE STANDARD:	SAT
1. Checks the plant's operational status;	
2. Checks the 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;	
5. Checks air compressor discharge pressure;	
6. Checks chemical batch tank for proper operating level;	
7. Checks for any unusual conditions or noises;	
8. Notifies watch engineer of any unusual or unsafe conditions; and	
9. Ensures that no safety or pollution violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-17*} RFPEW-2-1A (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Reports for duty 15 minutes before the hour to make a quick round of the machinery spaces to determine the general operation status and satisfactory condition;	
2. Determines from the off-going watch: (a) operational status of the plant; (b) unusual alarms or conditions occurring during the previous watch; (c) standing orders; (d) maintenance performed during the previous watch; (e) on-going repairs affecting plant operations; and (f) outstanding safety conditions; and	
3. Seeks clarification from the off-going watch or engineer if information was not clearly understood.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-18*} RFPEW-2-1B (ALL PROPULSION MODES)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Properly hand over the watch

PERFORMANCE STANDARD:	SAT
1. In preparation for relief, ensures that all assigned routine duties are completed before the conclusion of the watch;	
2. Communicates to the on-coming watch: (a) operational status of the plant; (b) unusual alarms or conditions occurring during previous watch; (c) standing orders; (d) maintenance performed during previous watch; (e) on-going repairs affecting plant operations; and (f) outstanding safety conditions; and	
3. Ensures that the watch relief is fully aware of the operational status of the plant.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-19*} RFPEW-2-2A (ALL PROPULSION MODES)

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

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

PERFORMANCE STANDARD:	**SAT**
1. Answers phone stating location, name, and rank;	
2. Correctly operates and communicates with remote stations via ships 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;	
5. All operations are conducted in accordance with ship's procedures; and	
6. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-20*} RFPEW-2-2B (ALL PROPULSION MODES)

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 watch keeping procedures

PERFORMANCE CONDITION: Aboard a ship, given proper equipment

PERFORMANCE BEHAVIOR: Upon receiving each of the bell signals, the candidate will log the bells as indicated from full ahead to full astern including stop and finished with engines

PERFORMANCE STANDARD:	SAT
1. When directed, obtains correct counter and fuel oil meter readings at stand-by or departure or arrival;	
2. Correctly acknowledges main engine direction and speed by matching engine order telegraph with order from bridge;	
3. Correctly enters appropriate graphic bell signal symbol and logs with correct time; and;	
4. Entries are legible.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-21*} RFPEW-2-3A (ALL PROPULSION MODES)

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

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 alarm;
- Fire or smoke alarms;
- Vital and non-vital engine operational alarms, including, but not limited to lube-oil alarms (temperature and pressure), boiler alarms, fuel-oil tank high-level alarm, oily-water separator alarm, and high-bilge-water alarm; and
- Vessel emergency signal or alarm

PERFORMANCE STANDARD:	**SAT**
For each alarm response, the candidate should be able to:	
1. Silence the alarm;	
2. Describe the system involved;	
3. Describe the system's purpose;	
4. Describe the seriousness of the alarm; and	
5. Notify the officer-in-charge of the engine watch of the alarm and his/her actions.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*ALL-21*} RFPEW-2-3A (ALL PROPULSION MODES)

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 alarm;
- Fire or smoke alarms;
- Vital and non-vital engine operational alarms, including, but not limited to lube-oil alarms (temperature and pressure), boiler alarms, fuel-oil tank high-level alarm, oily-water separator alarm, and high-bilge-water alarm; and
- Vessel emergency signal or alarm

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-22*} RFPEW-3-1A (ALL PROPULSION MODES)

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

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

PERFORMANCE STANDARD:	SAT
1. Maintains the boiler water level within +/- 2 inches of specified level through use and manipulation of feed water controller while standing a boiler watch; and	
2. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-23*} RFPEW-3-1B (ALL PROPULSION MODES)

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

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

PERFORMANCE STANDARD:	SAT
1. Maintains the boiler steam pressure within +/- 5% of specified pressure through use and manipulation of fuel/air ratio controller while standing a boiler watch; and	
2. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-24*} RFPEW-3-1C (ALL PROPULSION MODES)

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

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

PERFORMANCE BEHAVIOR:

Candidate will record readings from the boiler gauges:

- Pressure;
- Temperature; and
- Water level.

PERFORMANCE STANDARD:	SAT
1. Correctly determines and records the indicated pressures within +/- 2%, indicated temperatures within +/- 2% and observed water levels within +/- 1 inch; and	
2. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-25*} RFPEW-4-1A (ALL PROPULSION MODES)

FUNCTION: Marine Engineering at the Support Level

COMPETENCE: Operate emergency equipment and apply emergency procedures

KNOWLEDGE, UNDERSTANDING & **PROFICIENCY:** Escape routes from machinery spaces

PERFORMANCE CONDITION: Aboard a ship, in port or underway, 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:	SAT
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);	
3. Demonstrates the (a) shortest open route, and (b) an escape trunk, if so equipped; and	
4. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-26*} RFPEW-4-2A (ALL PROPULSION MODES)

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

PERFORMANCE CONDITION: Aboard a ship, in port or underway, given proper equipment

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

PERFORMANCE STANDARD:	SAT
1. Locates the nearest piece of each item from the list of fire-fighting and emergency equipment;	
2. Correctly states the purpose and describes the use or operation of the item or equipment named; and	
3. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*ALL-27*} RFPEW-4-2B (ALL PROPULSION MODES)

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

PERFORMANCE CONDITION: Aboard a ship, in port or underway, given proper equipment

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

PERFORMANCE STANDARD:	SAT
1. Checks or opens all required suction and discharge valves;	
2. Correctly starts pump;	
3. Fire pump discharge pressure rises to operating pressure;	
4. Checks running condition of pump and motor;	
5. Properly secures pump; and	
6. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

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STEAM

The assessments in this section are required for the Steam Endorsement

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-1*} RFPEW-1-1 B/2 (STEAM PLANTS)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Checks plant's operational 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 generator lube-oil sump levels;	
10. Checks the physical condition of pipes, tubing, and hoses for wear or leaks;	
11. Observes lube-oil and cooling-water temperatures and pressures;	
12. Observes auxiliary condenser vacuum and exhaust temperatures;	
13. Observes level of condensate in auxiliary condenser hot well;	
14. Checks for any unusual conditions or noises;	
15. Notifies the watch engineer of any unusual or unsafe conditions; and	
16. Ensures that no safety violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {STEAM-1} RFPEW-1-1 B/2 (STEAM PLANTS)

PERFORMANCE BEHAVIOR: Monitor electricity generating plants

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-2*} RFPEW-1-1G (STEAM PROPULSION)

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 watch keeping procedures

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 set point and the pressure range for potable water tank

PERFORMANCE STANDARD:	SAT
1. Correctly adjusts pressure range with-in +/- 5% of operating condition for potable water tank;	
2. Establishes water level in tank within one-inch of set point level; and	
3. Ensures that no safety violations have occurred.	

DATE	
SHIP'S NAME	
ASSESSOR – PRINT NAME	**SIGNATURE**
LICENSE	**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-3*} RFPEW-1-1 H/2
(STEAM PLANTS & GAS TURBINE)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Monitors Operation of Fresh Water Distillation Plant

PERFORMANCE STANDARD:	SAT
1. Verifies that overboard brine pump is discharging at required pressure;	
2. Verifies distiller salt water feed pump discharging at required pressure;	
3. Opens steam root valve to distiller unit steam air ejectors;	
4. Monitors and records steam supply pressure to salt water feed heater;	
5. Regulates desuperheater condensate flow to maintain steam supply temperature of no higher than 210° F to salt water feed water heater if live steam is used;	
6. Verifies half of a gage glass is maintained in salt water feed heater hot well;	
7. Adjusts salt-water flow from salt water feed heater to maintain minimum temperature of feed water at 165° F to first stage;	
8. Observes spray pattern of feed water and level of water at bottom of flash chamber;	
9. Monitors and records all salinity cell readings and verifies that three-way dump valve has not tripped;	
10. Verifies that distillate pump is operating, suction line gage glass is at half full, and that distillate level is indicated to be at or below .25 GPG (4.24 PPM); and	
11. Verifies tank to be replenished (potable water or distilled water) is lined-up as noted on engine room status board.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*STEAM-3*} RFPEW-1-1 H/2 (STEAM PLANTS)

PERFORMANCE BEHAVIOR: Monitors Operation of Fresh Water Distillation Plant

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-4*} RFPEW-1-1I/2
(STEAM PLANTS & GAS TURBINE)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Monitors the main lube-oil temperature and leaving the main lube-oil cooler;	
2. Monitors the main lube-oil sump well;	
3. Monitors the main lube-oil gravity tank for continuous overflow;	
4. Monitors the lube-oil pressure;	
5. Monitors the oil-return temperature from each bearing and indicators for continuous flow;	
6. Checks main condenser water boxes for leaks;	
7. Monitors main condensate and main circulator pumps;	
8. Checks air-ejector equipment and monitors main condenser vacuum;	
9. Checks auxiliary exhaust steam pressure, shell pressure and water level in deaerating feed tank;	
10. Monitors main condenser vacuum and engine exhaust temperature;	
11. Notifies the watch engineer of any unusual or unsafe conditions, unusual sounds, or vibrations; and	
12. Ensures that no safety violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*STEAM-4*} RFPEW-1-1I/2 (STEAM PLANTS)

PERFORMANCE BEHAVIOR: Monitor the main turbines.

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-5*} RFPEW-3-1D
(STEAM PLANTS & GAS TURBINE)

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

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

PERFORMANCE BEHAVIOR: Change out burners

PERFORMANCE STANDARD:	SAT
1. Checks clean burner barrel is available and properly assembles with required sprayer plate;	
2. Secures burner atomizer valve to burner to be cleaned;	
3. Removes burner and transfers to burner cleaning bench using appropriate insulated gloves and cleans floor plates of dripped oil occurring during the transfers;	
4. Inserts clean burner; tightening all connections;	
5. Opens burners register air vanes and prepares to relight burner using torch;	
6. Opens burner atomizer valve and adjusts combustion air to maintain economy brown haze in stack; and	
7. Ensures that no safety violations are observed.	

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-6*} RFPEW-3-1E
(STEAM PLANTS & GAS TURBINE)

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

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

PERFORMANCE BEHAVIOR: Clean a burner assembly

PERFORMANCE STANDARD:	SAT
1. Disassembles dirty burner;	
2. Places tip in a container, furnace face upward, and soaks all other parts in kerosene until carbon has softened;	
3. Remove parts from kerosene;	
4. Cleans parts of carbon and debris with non-ferrous tools;	
5. Stows disassembled burner barrel;	
6. All operations are in accordance with manufacturer's recommended procedures; and	
7. Ensures that no safety violations are observed.	

DATE		
SHIP'S NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-7*} RFPEW- 3-1F (STEAM PLANTS)

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

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

PERFORMANCE BEHAVIOR: Assists in manual light off a main propulsion boiler

PERFORMANCE STANDARD:	SAT
1. Ensures auxiliary and main feed checks are closed;	
2. Opens all air registers to idle boiler furnace;	
3. Starts idle boiler forced draft fan for minimum five-minute purge;	
4. Engages and sets fuel oil service system master (Solenoid) valve;	
5. Opens fuel oil service system recirculation valve;	
6. Verifies fuel oil manifold pressure, and sets to minimum 125 psi;	
7. Verifies steam drum air cock, superheater vent, and superheater drain valves are open;	
8. Verifies that a minimum of one inch of water is visible at bottom of gage glass;	
9. Readies burner with small orifice sprayer plate tip (BWG 53);	
10. Positions burner in register (furthest from superheater tubes.) and closes all air registers, with exception of register with burner in place;	
11. Adjusts and locks air damper to "light-off"' position;	
12. Verifies F.O. has attained light-off temperature of 210° F;	**NA**
13. Ignites torch and inserts through register inspection hole and positions by burner tip;	
14. Adjusts air register to prevent extinguishing torch;	
15. Opens burner root valve, and then F.O. atomizer valve to ignite burner;	
16. Adjusts combustion air to maintain brown haze issuing from stack;	
17. Closes F.O. recirculating valve;	
18. Periodically observes periscopellight intensity to modify supply of combustion air to prevent "smoking;"	
19. Verifies steam flow through superheater vent;	
20. Secures steam drum air cock at 15 psig;	
21. Verifies oncoming boiler pressure has attained pressure within 50 psi of on-line boiler working pressure;	
22. Secures burner if boiler is not to be placed on line; and	
23. Closes superheater drains and vent.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*STEAM-7*} RFPEW- 3-1F (STEAM PLANTS)

PERFORMANCE BEHAVIOR: Assists in manually light off a main propulsion boiler

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-8*} RFPEW- 3-1G (STEAM PLANTS)

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

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

PERFORMANCE BEHAVIOR: Fire a main propulsion boiler during maneuvering

PERFORMANCE STANDARD:	SAT
1. Upon being directed by OlCEW one hour prior to maneuvering to have required burners prepared and ready;	
2. Ensures auxiliary and main feed checks are closed;	
3. Verifies that fuel oils service system master (solenoid) valve is properly engaged for each boiler;	
4. Verifies that fuel oil service system recirculation valve is closed;	
5. Verifies the operation of the fuel oil service pump and normal discharge pressure is maintained;	
6. Verifies water is visible in boiler gauge glass at half or normal drum level;	
7. Readies all burners with varying orifice spray plates per vessel maneuvering operations;	
8. Verifies F.O. temperature is steady at 210°;	NA
9. When directed that engine sea speed will be reduced to maneuvering speed, fuel to at least one burner in each boiler will be secured;	
10. Combustion air will be reduced to the proper fuelfair ratio by reducing forced draft fan speed, and or air register opening, or combustion control board air ratio controller, or through a combination of events as is necessary;	
11. Periodically observes periscopellight intensity to modify supply of combustion air to prevent "smoking;"	
12. Continually monitors boiler water level, modulating feed pump speed as necessary, yet avoiding feed water flow changes as an over reaction during periods of shrink and swell due to engine speed changes; and	
13. Ensures that as engine speed is increased, combustion air will be increased prior to fuel flow increase by increasing forced draft fan speed, and/or air register opening, or combustion control board air ratio controller, or through a combination of events as is necessary.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*STEAM-8*} RFPEW- 3-1G (STEAM PLANTS)

PERFORMANCE BEHAVIOR: Fire a main propulsion boiler during maneuvering

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*STEAM-9*} RFPEW-3-1H (STEAM PLANTS)

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.

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

PERFORMANCE BEHAVIOR: The candidate will demonstrate the procedures and actions taken daily to assist in the daily maintenance of the main propulsion boilers while at sea through the operation of the soot blower system

PERFORMANCE STANDARD:	SAT
When directed, the candidate:	
1. Increases the deaerating feed water tank (DFT) level in preparation for using the steam soot blowers;	
2. Verifies that the drain valve of the soot blower system line is open	
3. Slowly opens the soot blower steam isolation valves;	
4. Observes the output from the soot blower system drain, and secures the drain valve when it is determined that only steam is present;	
5. Informs the OICEW when the system is ready;	
6. Increases the speed of the forced-draft fan;	
7. Physically pulls on any chain drive or manually rotates any crank to operate in its proper sequence any non-air motor-driven soot blower;	
8. Assists in maintaining a watch on the main propulsion boiler water level, steam, pressure, and DFT water level; and	
9. Cuts burners in and out as required based upon bells	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*STEAM-9*} RFPEW-3-1H (STEAM PLANTS)

PERFORMANCE BEHAVIOR: the candidate will demonstrate the procedures and actions taken daily to assist in the daily maintenance of the main propulsion boilers while at sea through the operation of the soot blower system

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

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MOTOR

The assessments in this section are required for the Motor Endorsement

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*MOTOR-1*} RFPEW-1-1 B/1
(MOTOR PLANTS & GAS TURBINE)

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 watch keeping procedures

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

PERFORMANCE STANDARD:	SAT
1. Checks plant's operational 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 governor, turbocharger, and sump and reduction gear lube-oil levels as applicable;	
10. Checks the physical condition of pipes, tubing, and hoses for wear or leaks;	
11. Observes lube-oil and cooling-water temperatures and pressures;	
12. Observes air intake, fuel oil, and exhaust temperatures and pressures;	
13. Observes the condition of air-intake filters;	
14. Reads fuel-oil meter and day-tank levels as applicable;	
15. Checks for any unusual conditions or noises;	
16. Notifies the watch engineer of any unusual or unsafe conditions; and	
17. Ensures that no safety violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*MOTOR-1*} RFPEW-1-1 B/1
(MOTOR PLANTS & GAS TURBINE)

PERFORMANCE BEHAVIOR: Monitor electricity generating plants

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*MOTOR-2*} RFPEW-1-1 C/1 (MOTOR PLANTS)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Monitor fuel oil purification plant

PERFORMANCE STANDARD:	SAT
1. Checks purifier's operational status;	
2. Checks the dirty-oil inlet pressure;	
3. Checks the dirty-oil discharge pressure;	
4. Checks the clean-oil discharge pressure;	
5. Checks the purifier-gear drive oil sump level;	
6. Checks level in sealing-water head tank;	
7. Checks inlet and outlet sight glasses for flow;	
8. Checks heater steam supply pressure;	NA
9. Feels machine for vibration;	
10. Checks speed indicator for proper bowl speed;	
11. Determines the point of suction to be settling tank;	
12. Determines the point of discharge to be day tank;	
13. Checks operating water pressure;	
14. Checks control air pressure;	
15. Checks for any unusual conditions or noises;	
16. Notifies the watch engineer of any unusual or unsafe conditions; and	
17. Ensures that no safety or pollution violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*MOTOR-2*} RFPEW-1-1 C/1 (MOTOR PLANTS)

PERFORMANCE BEHAVIOR: Monitor fuel oil purification plant

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*MOTOR-3*} RFPEW-1-1 H/1 (MOTOR PLANTS)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Monitors Operation of Fresh Water Distillation Plant

PERFORMANCE STANDARD:	**SAT**
1. Verifies distiller salt water feed pump is discharging to distiller shell and educators at required pressure;	
2. Monitors and records jacket cooling water flow to salt water feed heater submerged tube bundle maintaining a 10° C temperature differential between inlet and outlet;	
3. Verifies that salt water flow to salt water feed heater minimum temperature is at or above 165°F;	
4. Monitors and records all salinity cell readings and verifies that three-way dump valve has not tripped and recirculating distillate back to distiller;	
5. Verifies that distillate pump is operating, suction line gage glass is at half full, and that distillate level is indicated to be at or below .25 GPG (4.24 PPM); and	
6. Verifies tank to be replenished (potable water or distilled water) is lined-up as noted on engine room status board.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME	**SIGNATURE**	
LICENSE	**LICENSE NUMBER**	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*MOTOR-4*} RFPEW-1-1I/1 (MOTOR PLANTS)

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 watch keeping procedures

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

PERFORMANCE BEHAVIOR: Monitor the main diesel engine

PERFORMANCE STANDARD:	SAT
1. Monitors the main lube-oil cooler inlet and outlet temperatures;	
2. Monitors the lube-oil pressure to the engine;	
3. Monitors the oil-return temperature from each bearing;	
4. Monitors cooling water pump temperature and pressures, and maintains them on the orders of the officer in-charge of the engine watch;	
5. Inspects fuel-injector leak-off piping, high-pressure delivery lines, and indicator cocks;	
6. Inspects fuel-oil booster pump strainers, filters and pressures;	
7. Inspects fuel oil service pump strainers, filters and pressures;	
8. Inspects fuel oil and viscosimeter set point as applicable;	**NA**
9. Observes governor operation and lube-oil level;	
10. Observes fuel-pump and/or fuel injector rack settings;	
11. Observes telescopic links and cylinder lubrication, if fitted;	
12. Checks operation of crankcase vacuum fans, mist detectors, and condition of explosion covers;	
13. Checks start air compressors temperature and pressures;	
14. Monitors main compressed air receiver pressure;	
15. Drains main compressed air receiver;	
16. Notifies the watch engineer of any unusual or unsafe conditions, unusual sounds, or vibrations; and	
17. Ensures that no safety violations have occurred.	

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

(Continued)

ASSESSMENT NO. {*MOTOR-4*} RFPEW-1-1I/1 (MOTOR PLANTS)

PERFORMANCE BEHAVIOR: Monitor the main diesel engine

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

TABLE A-III/4 Specification of Minimum Standard of Competence
RATING FORMING PART OF AN ENGINEERING WATCH

CONTROL SHEET

ASSESSMENT NO. {*MOTOR-5*} RFPEW-2-1C
(MOTOR & GAS TURBINE PLANTS)

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

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

PERFORMANCE STANDARD:	SAT
1. Checks general exterior of engine for debris, lube oil, fuel oil, and cooling water leaks, or unsafe conditions;	
2. Checks lube oil levels in sump and governor - adds oil as necessary, and recording quantity if added;	
3. Checks cooling water expansion tank and fills to normal level, recording quantity added;	
4. Checks associated pumps, as fitted, for indications of leaks or abnormalities;	
5. Notifies OlCEW of abnormalities and status of engine for starting; and	
6. Ensures that no safety violations are observed.	

DATE		
SHIPS NAME		
ASSESSOR – PRINT NAME		**SIGNATURE**
LICENSE		**LICENSE NUMBER**

CERTIFICATION

STCW CERTIFICATION

This section is the final step for the ship and candidate to complete in order to begin the final process for receiving a STCW-95 certificate endorsed as *Rating Forming Part of an Engineering Watch.*

The mariner must sign the permission to work on his/her behalf statement on the next page

This sections also includes:

- USCG Form CG-719B

Along with sending this book to the MSFSC CIVMAR Workforce Development Division, the following additional information must be provided:

- Chief Engineer's certification letter ***(must be filled out in Book)***
- Application for Merchant Mariner Document (MMD), License, or Certificate of Registry (Form CG-719B)
    - Make copy of application from *Work & Record Book*
    - Complete application form (from copy made), do not fill out application in book
- Certified copy of Basic Safety Training course completion certificate(s)
- Copy of front and back of mariner's current USCG MMD
- Two passport photos

Everything should be mailed to:

Military Sealift Fleet Support Command
Attn: N16 – (Training – RFPEW)
P.O. Box 120
Virginia Beach, VA 22458-0120

MSFSC CIVMAR Workforce Development Division (N16 – Training) will verify with the ship that it has received the package and if the package is complete. Once the package is complete MSFSC CIVMAR Workforce Development Division (N16 – Training) will mail a copy of Rating Forming Part of an Engineering Watch program completion certificate to the candidate/mariner.

The APMC will also send application, photos, and training certificates to the USCG REC to process the STCW Certificate.

Permission to work on his/her behalf

I _____ give MSFSC CIVMAR
(PRINT NAME)

Workforce Development Division (N16 – Training) permission to work on my behalf with the USCG in order to receive the STCW 95 Certificate endorsed with *Rating Forming Part of an Engineering Watch.*

_____
Signature

_____
Date

DEPARTMENT OF TRANSPORTATION U.S. COAST GUARD	**Application for License as an Officer, Staff Officer, or Operator and for Merchant Mariner's Document**	OMB-2115-0514
CG-719B (Rev 11/02)		Page 1

Section I - Personal Data

(For CG Use Only) Date Application Received

Name (Last, First, Middle) (Maiden Name if applicable)			Social Security Number
Date of Birth (Month, Day, Year) _____ / _____ / _____	Place of Birth (City, State, Country)		Country of Citizenship
Color of Eyes	Color of Hair	Height _____ft_____in	Weight _____lbs
Mailing Address, City, State, Zip Code (PO Boxes are acceptable)		Phone Number ( ) -	
		FAX Number ( ) -	
		E-mail Address	
Next of Kin's Name and Mailing Address, City, State, Zip Code		Relationship	
		Next of Kin's Phone Number ( ) -	
		Next of Kin's E-mail Address	

Parental or Guardian's Consent

☐ I am under 18 years old and a notarized statement of parental/guardian consent is attached.

Section II - Type of Transaction

Transaction	Original	Renewal	Raise in Grade	Endorsement	Duplicate*
☐ License	☐	☐	☐	☐	☐
☐ Merchant Mariner's Document (MMD)	☐	☐	☐	☐	☐
☐ STCW Certificate	☐	☐	☐	☐	☐
☐ Certificates of Registry	☐	☐	☐	☐	☐
☐ Certificate of Discharge Sea Service					

***If requesting a duplicate for a lost or stolen License/MMD attach a signed statement explaining how, when and where your credentials were lost or stolen and your efforts to recover them.**

Applying for:

Grade of License (include tonnage, waters, propulsion mode, horsepower, etc.); or MMD rating (Able Seaman, QMED-Oiler, etc.)

State Current or Previous License/Merchant Mariner's Document

Description of License/Merchant Mariner's Document	Place of Issue	Date of Issue

Section III - Narcotics, DWI/DUI, and Conviction Record

Conviction means found guilty by judgment or by plea and includes cases of deferred adjudication (no contest, adjudication withheld, etc.) or where the court required you to attend classes, make contribution of time or money, receive treatment, submit to any manner of probation or supervision, or forgo appeal of a trial court finding. Expunged convictions must be reported unless the expungement was based upon a showing that the court's earlier conviction was in error.

Yes (X)	No (X)	**Indicate your answers to the following questions; sign and date at the bottom of this section.**
		Have you ever been convicted of violating a dangerous drug law of the United States, District of Columbia, or any state, or territory of the United States? (This includes marijuana.) ***(If yes, attach statement)***
		Have you ever been a user of/or addicted to a dangerous drug, including marijuana? ***(If yes, attach statement)***
		Have you ever been convicted by any court – including military court – for an offense other than a minor traffic violation? ***(If yes, attach statement)***
		Have you ever been convicted of: 1) A traffic violation arising in connection with a fatal traffic accident; 2) Reckless driving or racing on the highway; or 3) Operating a motor vehicle while under the influence of, or impaired by, alcohol or a controlled substance? ***(If yes, attach statement)***
		Have you ever had your driver's license revoked or suspended for refusing to submit to an alcohol or drug test? ***(If yes, attach statement)***
		Have you ever been given a Coast Guard Letter of Warning or been assessed a civil penalty for violation of maritime or environmental regulations? ***(If yes, attach statement)***
		Have you ever had any Coast Guard license or document held by you revoked, suspended or voluntarily surrendered? ***(If yes, attach statement)***

I have attached a statement of explanation for all areas marked "yes" above. I signed this section with full understanding that a false statement is grounds for denial of the application as well as criminal prosecution and financial penalty. I understand that failure to answer *every* question will delay my application.

X **Signature of Applicant agreeing to the above statement**	**Date**

Section IV – Character References (For Original License Applicants Only)

☐ **I am an Original License Applicant and have attached three letters of written recommendation.**

Section V - Mariner's Consent

National Driver Registry (NDR) (Mandatory): I authorize the National Driver Registry to furnish the U.S. Coast Guard (USCG) information pertaining to my driving record. This consent constitutes authorization for a single access to the information contained in the NDR to verify information provided in this application. I understand the USCG will make the information received from the NDR available to me for review and written comment prior to taking any action against my License or Merchant Mariner's Document. Authority: 46 U. S. C. 7101(g) and 46 U. S. C. 7302(c).

X **Signature of Applicant**	**Date**

Mariner's Tracking System (Optional): I consent to voluntary participation in the Mariner's Tracking System to be used by the Maritime Administration (MARAD) in the event of a national emergency or sealift crisis. In such an emergency, MARAD would disseminate my contact information to an appropriate maritime employment office to determine my availability for possible employment on a sealift vessel. Once consent is given, it remains effective until revoked in writing. Send signed notice of revocation to the USCG National Maritime Center (NMC-4A), 4200 Wilson Blvd., Suite 630, Arlington, VA 22203-1804

X **Signature of Applicant**	**Date**

Section VI - Certification and Oath

Certification (Mandatory)

Whoever, in any manner within the jurisdiction of any department or agency of the United States, knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, violates the U. S. Criminal Code at Title 18 U. S. C. 1001 which subjects the violator to Federal prosecution and possible incarceration, fine or both.

I certify that the information on this application is true and correct and that I have not submitted any application of any type to the Officer-in-Charge, Marine Inspection in any port and been rejected or denied within 12 months of this application.

X **Signature of Applicant agreeing to the above statement**	**Date**

Oath (For originals only. Coast Guard official must witness applicant signature.)

I do solemnly swear or affirm that I will faithfully and honestly, according to my best skill and judgment, and without concealment and reservation, perform all the duties required of me by the laws of the United States. I will faithfully and honestly carry out the lawful orders of my superior officers aboard a vessel.

X **Signature of Applicant** **Date**	**Signature of Coast Guard Official** **Date**

U.S. Coast Guard Use Only

Section VII – REC Application Approval

Signature of Approving Official	**REC**	**(Application has been approved on this date)** **Date**

Section VIII – REC Citizenship Verification & Credential Issuance

Indicate Proof of Citizenship below (For non U.S. also include I.N.S. Alien Registration #)

License Endorsement(s) Issued		**Document Rating(s) Issued**
Issue Number	**License Serial Number**	**MMD Serial Number**
Expiration Date		**Expiration Date**

☐ **Check box if corresponding STCW certificate was issued.**

Signature of Issuing Official	**REC**	**Date**

Section IX – NMC Verification of Duplicate Transactions

Ratings/Endorsements Authorized

Signature of Approving NMC Official: _____Date: _____

PRIVACY ACT STATEMENT

In accordance with 5 U. S. C. 552a(e)(3), THE FOLLOWING INFORMATION IS PROVIDED TO YOU WHEN SUPPLYING PERSONAL INFORMATION TO THE U.S. COAST GUARD.

1. AUTHORITY WHICH AUTHORIZED THE SOLICITATION OF INFORMATION
   - A. 46 U. S. C. 7302, 7305, 7314, 7316, 7319, AND 7502
   - B. SEE 46 CFR PARTS 10 AND 12.

2. PRINCIPLE PURPOSES FOR WHICH INFORMATION IS INTENDED TO BE USED.
   - A. TO ESTABLISH ELIGIBILITY FOR A MERCHANT MARINER'S DOCUMENT, DUPLICATE DOCUMENTS, OR ADDITIONAL ENDORSEMENTS ISSUED BY THE COAST GUARD.
   - B. TO ESTABLISH AND MAINTAIN A CONTINUOUS RECORD OF THE PERSONS DOCUMENTATION TRANSACTIONS.
   - C. PART OF THE INFORMATION IS TRANSFERRED TO A FILE MANAGEMENT COMPUTER SYSTEM FOR A PERMANENT RECORD.

3. THE ROUTINE USES WHICH MAY BE MADE OF THE INFORMATION:
   - A. TO MAINTAIN RECORDS REQUIRED BY 46 U. S. C. 7319 AND 7502.
   - B. TO ENABLE ELIGIBLE PARTIES (*i.e. the mariner's heirs or properly designated representative*) TO OBTAIN INFORMATION.
   - C. TO PROVIDE INFORMATION TO THE U.S. MARITIME ADMINISTRATION FOR USE IN DEVELOPING MANPOWER STUDIES AND TRAINING BUDGET NEEDS.
   - D. TO DEVELOP INFORMATION AT THE REQUEST OF COMMITTEES OF CONGRESS.
   - E. TO PROJECT BILLET ASSIGNMENTS AT COAST GUARD MARINE INSPECTION/SAFETY OFFICES.
   - F. TO PROVIDE INFORMATION TO LAW ENFORCEMENT AGENCIES FOR CRIMINAL OR CIVIL LAW ENFORCEMENT PURPOSES.
   - G. TO ASSIST U.S. COAST GUARD INVESTIGATING OFFICERS AND ADMINISTRATIVE LAW JUDGES IN DETERMINING MISCONDUCT, CAUSES OF CASUALTIES, AND APPROPRIATE SUSPENSION AND REVOCATION ACTIONS.
4. WHETHER OR NOT DISCLOSURE OF SUCH INFORMATION IS MANDATORY OR VOLUNTARY (Required by law or optional) AND THE EFFECTS ON THE INDIVIDUAL, IF ANY, OF NOT PROVIDING ALL OR PART OF THE REQUESTED INFORMATION IS VOLUNTARY, DISCLOSURE OF THIS INFORMATION IS VOLUNTARY, BUT FAILURE TO PROVIDE MAY RESULT IN NON-IISUANCE OF THE REQUESTED DOCUMENT(S).

"An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number."
"The Coast Guard estimates that the average burden for this report is 10 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (G-CIM), U. S. Coast Guard, 2100 2nd Street, SW, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (2115-0514), Washington, DC 20503."