
U.S. COAST GUARD



HULL TANKSHIP (HT)

PERFORMANCE AND QUALIFICATION STANDARD



Marine Inspection and Investigation School
Training Center Yorktown

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Hull Tankship Performance and Qualification Standard

References:

- (a) U.S. Coast Guard Sector Organization Manual, COMDTINST M5401.6 (series)
- (b) Marine Safety Manual, COMDTINST M16000 (series)
- (c) Performance, Training & Education Manual, COMDTINST M1500.10 (series)
- (d) Safety and Environmental Health Manual, COMDTINST 5100.47 (series)

This Performance and Qualification Standard (PQS) workbook is your On the Job Training (OJT) performance checklist for the tasks for the Hull Tankship (HT) inspector qualification. It is your responsibility to document all completed unit training items and keep track of all inspections completed during this process by filling out the Inspection Log located in appendix B in this workbook.

This PQS is intended for all Coast Guard Marine Inspectors (Active Duty Officers and Civilian GS Personnel).

*This PQS workbook contains the tasks and steps required for a HT qualification. **This is to be completed follow or in conjunction with the Core and Hull Inspector (HI) PQS.** Those members who will be pursuing the HT competencies are required to complete all tasks and steps in this PQS workbook. **No competency will be assigned until the requirements of the Core, HI and HT PQS workbooks are completed.***

The following is a brief overview of how this PQS workbook works. On each task card you will find:

1. **Job:** The formal title of the qualification.
Example: "Offshore Supply Vessel Inspector"
2. **Job Accomplishment:** The main deliverable for the qualification.
Example: "Certificate of Inspection"
3. **Major Accomplishment:** The valuable products of a job or specialty which collectively make up the job accomplishment.
Example: "Lifesaving Equipment Inspection"
4. **Vessel types:** The specific type of vessels within the formal title of the qualification that the task is associated with.
Example: "Small Passenger Vessel (T)"
5. **Task:** Action to be performed on the job. A unit of behavior which has value for producing major accomplishments/output; has a definite beginning (stimulus); is made up of two or more steps; and results in a measurable output.
6. **Condition:** Specifies assistance, aids, or constraints the trainee will be given. It states the condition(s)/limit(s) under which the task will be performed.

7. **Standard:** Specifications of the levels of accuracy and quality necessary for success - that is, how well a trainee must carry out the desired performance to complete the task.
8. **Steps:** Sequence of actions which collectively make up the task's completion.

All tasks and steps must be validated by a certified Verifying Officer (VO). The VO shall observe the successful performance of each task and document such with signatures in the specific task card. VOs shall be experienced and competent personnel who have demonstrated the ability to evaluate, instruct and observe other personnel in the performance task criteria. VOs must be certified and recent in the competencies for which they are to verify and must be designated in writing, by the command. VOs must enter their title, name and initials in the Record of Verifying Officer's section before making entries in your PQS workbook.

With the exception of the training prerequisites listed on page (I), the Officer in Charge of Marine Inspection (OCMI) or designee may defer PQS items as authorized by references (a) and (d). The deferment of tasks should only be done when all reasonable attempts have been exhausted that would allow the apprentice the opportunity to demonstrate proficiency with a particular task. If a task is deferred, the reason for the deferment must be clearly articulated in both the PQS workbook and the certification letter for record keeping and accountability. The certification will be considered a "local certification" per reference (b) (MSM I/7.C.2.g) and limited to the cognizant OCMI's zone. Upon transfer of the inspector or OCMI, the certification will be rescinded until the deferred items have completed to the satisfaction of the new OCMI. **Division Chiefs shall examine all qualifications and prerequisites of newly reported Marine Inspectors to identify any deferred items necessary for their port.**

Prior to any prerequisite being deferred the individual's command must seek a waiver from the Office of Commercial Vessel Compliance (CG-CVC-1).

A Certification Board should only be completed after all the tasks and steps are signed by a VO. Upon satisfactory completion of the board, a Letter of Certification/Designation will be issued and the **Unit Training Coordinator should enter the certification in Training Management Tool (TMT).**

Appendices:

- A. Glossary
- B. Inspection Log

PQS Verifying Officer Signature Verification Log

RATE/ RANK	SIGNATURE/ PRINT NAME	EMPLID	INITIALS	UNIT
REMARKS:				

Hull Tankship PQS

RECORD OF COMPLETION		
Training Prerequisites	Date	Training Coordinator's Signature
A. Completion of Hull (HI) PQS		
B. Completion of this PQS Workbook		
C. Successful completion of final assessment under observation of Verifying Officer		
D. Successful completion of the final board by HT Certification Board.		
Qualification Board Members:		
E. Certification/Designation Letter submitted for approval		
F. Once Certification/Designation Letter is signed, enter competency and certification in TMT		
REMARKS:		

Hull Tankship PQS

Task Number	Task Description	Date Completed
HT-PI01	Mitigate potential hazards encountered during an inspection	
HT-PI02	Review periodic gauging of tank vessel mid-bodies	
HT-CD01	Review International Oil Pollution Prevention Certificate (IOPP) & Form B	
HT-CD02	Review International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances (IPPC-NLS)	
HT-CD03	Review Merchant Mariner Credential (MMC) endorsement	
HT-CD04	Review certificate of inhibition or stabilization	
HT-CD05	Reviewing loading information	
HT-CD06	Review cargo information document	
HT-LM01	Review Oil Record Book Part II (Cargo/Ballast Operations)	
HT-LM02	Review cargo and ballast system instructional manual	
HT-LM03	Review inert gas operation and maintenance manual	
HT-LM04	Review Cargo Record Book and Procedures & Arrangements (P&A) Manual	
HT-LM05	Review Shipboard Marine Pollution Emergency Plan (SMPEP)	
HT-LM06	Review Tank Vessel Response Plan (TVRP)	
HT-GH01	Inspect shower and eye wash station	
HT-GH02	Inspect Personnel emergency and safety equipment	
HT-LS01	Inspect lifeboats	
HT-FF01	Inspect fixed fire-extinguishing system(s) for cargo pump rooms	
HT-FF02	Inspect fixed deck foam system	
HT-FF03	Inspect additional emergency (fire fighting) outfits and equipment	
HT-ES01	Inspect components installed in designated hazardous locations	
HT-PP01	Inspect deck containment	
HT-TE01	Inspect access to bow and emergency towing arrangements	
HT-CS01	Inspect cargo tank venting arrangements	
HT-CS02	Inspect cargo pump room	
HT-CS03	Inspect designated observation area	
HT-CS04	Inspect liquid cargo transfer systems	

Hull Tankship PQS

Task Number	Task Description	Date Completed
HT-CS05	Inspect Vapor Collection System (VCS)	
HT-CS06	Inspect tank liquid high level and overfill protection	
HT-CS07	Inspect fixed/portable vapor detection instruments	
HT-CS08	Inspect Inert Gas System (IGS)	
HT-CS09	Witness tests of Inert Gas System (IGS) audible and visual alarms and shutdowns	
HT-CS10	Inspect oil discharge monitoring and control system (ODME)	
HT-CS11	Inspect Crude Oil Washing (COW) system	
HT-CS12	Inspect vessel stability instrument	
HT-CS13	Inspect leak detection system	
HT-FU01	Issue or endorse vessel's Certificate of Inspection	

Appendix A

Glossary: The following terms are used in this workbook and should be reviewed in order to better understand its contents:

Advise: to counsel or recommend

Assign: to give responsibility, to place under the control of a task

Amend (Modify): to make minor changes in/to

Brief: to give information or final precise instructions

Change: to make different in some particular way

Check: to inspect for satisfactory condition, accuracy, safety or performance

Compare: to examine (two or more objects, ideas, people, etc.) in order to note similarities and/or differences

Communicate: to convey knowledge of or information about: make known

Confirm: to validate, establish the truth, accuracy or genuineness of something

Create: to cause to happen; bring about; arrange, as by intention or design

Discuss: to verbally present a topic in detail for examination or consideration

Determine: to settle or decide by choice of alternatives or possibilities. “Decide” refers to arriving at a conclusion and to pronounce that decision. “Determine” is to settle or decide by choice of alternatives or possibilities and to fix precisely.

Endorse: to approve, support or sustain; to sign one’s name on a document or other instrument

Ensure: to make certain, to guarantee

Enter: to make a record of; record or register

Evaluate: to determine the significance or worth of, usually by careful appraisal and study

Examine: to look at or consider a thing carefully and in detail in order to discover something about it

Identify: to determine critical or necessary conditions or other factors; to determine the specific model of an item; to ascertain the origin, nature or definitive characteristics of; to recognize or establish as being a particular person or thing

Inspect: to examine officially; to look carefully at or over; view closely and critically

Issue: to serve legally binding federal documentation, notices or declarations to an individual, business or other distinctive entity

Appendix A

Locate: to determine or set the position of; to find

Make: to create or cause to happen

Modify (Amend): to make minor changes in/to

Observe (Witness): to watch carefully

Obtain: to gain or attain

Open: to set in action, begin, start or commence

Prepare: plan, gather and assemble information to produce a document (i.e. COI); to put together, to combine elements and produce a product, to make ready

Provide: to supply or make available

Review: to go over for the purpose of determining correctness or currency; to examine a document or process for accuracy in content and/or format and report errors or updates to the author or controlling authority

Schedule: to appoint, assign, or designate for a fixed time

Update: to bring up to date or make current

Validate: to substantiate accuracy or truth of by comparison or investigation

Verify: to confirm or establish the accuracy or truth of something

Witness (Observe): to watch carefully

Appendix B

DATE	LOCATION	VESSEL NAME	VESSEL TYPE	INSPECTION TYPE	LEAD INSPECTOR

Pre-Exam (PI)

Tank Vessel

Task: HT-PI01 Mitigate potential hazards encountered during an inspection

Condition: *During preparation for inspection*

Standard: *In accordance with current policies, procedures and processes*

- References:**
1. Title 29, Code of Federal Regulations Part 1915 Occupational Safety & Health Standards for Shipyard Employment
 2. COMDTINST M16000.6 Marine Safety Manual Volume I Administration & Management
 3. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2
 4. NFPA 306 Standard for the Control of Gas Hazards on Vessels, 2009
 5. NFPA 350 Guide for Safe Confined Space Entry and Work
 6. Gas Detector Operator's Manual

Steps		References	Initials
PI01.1	Recognize potential hazards encountered during an inspection	NFPA 306 NFPA 350	
PI01.2	Determine confined spaces	MSM I/10 App.A NFPA 350	
PI01.3	Determine if inspection scope will require a Marine Chemist certification for space entry	29 CFR 1915, Part B MSM II/A.5.H	
PI01.4	Verify Marine Chemist has been scheduled for exam	MSM I/10 App. A	
PI01.5	Prepare necessary personal protective equipment for exam	MSM I/10 App. A MSM I/8.A.3 Gas Detector Operator's Manual	
PI01.6	Review CG policy for when to leave a space due to hazardous condition	MSM I/10 App. A	

Verifying Officer Guidance: *When determining the potential impact of cargo pump shutdowns identify the direction of cargo flow (load/discharge/both). Always assess the risks associated with any cargo system tests. Respect all cargos as hazardous and limit exposure risk.*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-PI02 Review periodic gauging of tank vessel mid-bodies

Condition: While validating certificates and documents

Standard: In compliance with applicable policies, laws, regulations and standards

References: 1. Title 46, Code of Federal Regulations Part 31 Tank Vessels - Inspection & Certification

Steps		References	Initials
PI02.1	Verify need for initial or periodic regauging	46 CFR 31.10-21a (a) & (b)	
PI02.2	Verify location of mid-body survey gauging	46 CFR 31.10-21a(a) & (c)	
PI02.3	Verify results, engineering analysis and repair proposal(s)	46 CFR 31.10-21a(d) & (f)	
PI02.4	Verify availability of permanent approved copies	46 CFR 31.10-21a(e)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-CD01 Review International Oil Pollution Prevention Certificate (IOPP) & Form B

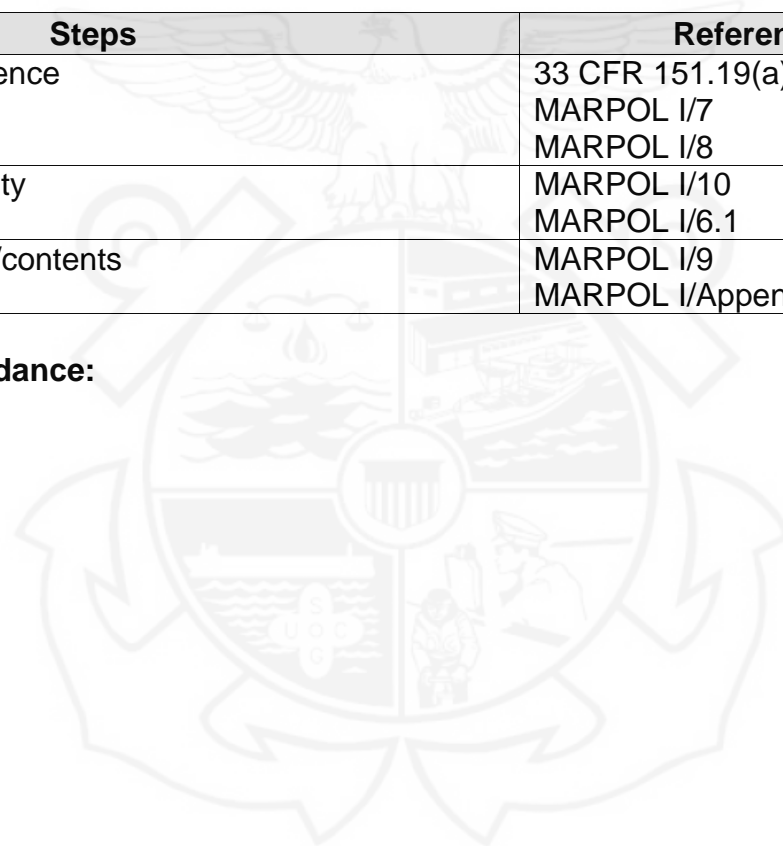
Condition: While validating certificates and documents

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
- Title 33, Code of Federal Regulations Part 151 Vessels Carrying Oil, NLS, Garbage, Municipal or Commercial Waste & Ballast Water
 - International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended

Steps		References	Initials
CD01.1	Verify presence	33 CFR 151.19(a) MARPOL I/7 MARPOL I/8	
CD01.2	Verify validity	MARPOL I/10 MARPOL I/6.1	
CD01.3	Verify form/contents	MARPOL I/9 MARPOL I/Appendix II	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-CD02 Review International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances (IPPC-NLS)

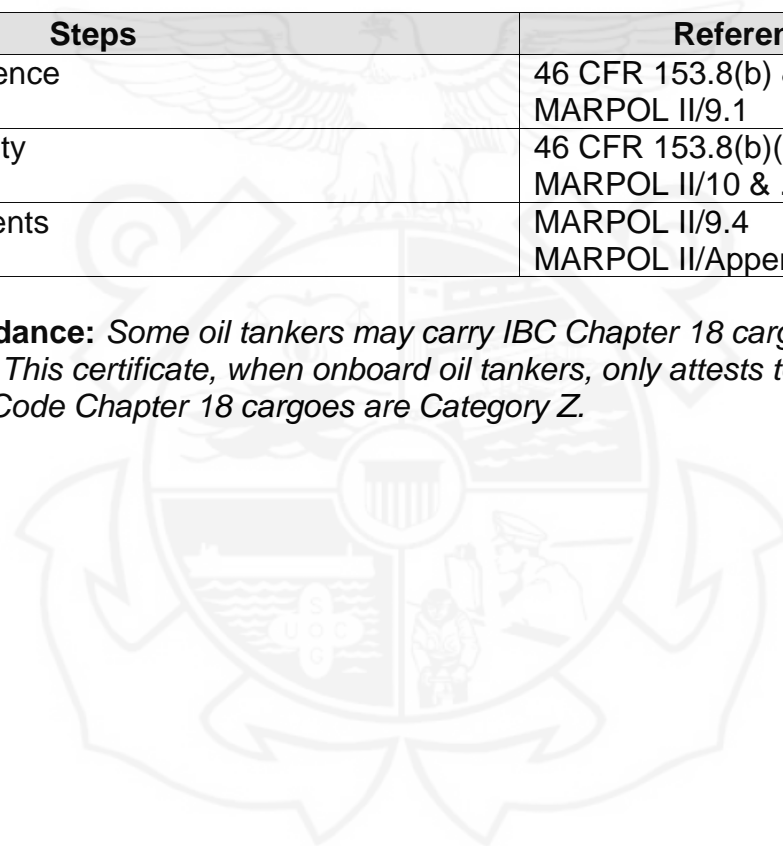
Condition: While validating certificates and documents

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials
 2. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended

Steps		References	Initials
CD02.1	Verify presence	46 CFR 153.8(b) & .12 MARPOL II/9.1	
CD02.2	Verify validity	46 CFR 153.8(b)(2) MARPOL II/10 & .12	
CD02.3	Verify contents	MARPOL II/9.4 MARPOL II/Appendix III	

Verifying Officer Guidance: Some oil tankers may carry IBC Chapter 18 cargoes for which the IBC Code does not apply. This certificate, when onboard oil tankers, only attests to the addition of a P&A Manual as some IBC Code Chapter 18 cargoes are Category Z.



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-CD03 Review Merchant Mariner Credential (MMC) endorsement

Condition: *While validating certificates and documents*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 13 Certification of Tankermen
 2. International Convention on Standards of Training, Certification & Watchkeeping (STCW) 1978, as amended

Steps		References	Initials
CD03.1	Verify tankerman endorsement on MMC	46 CFR 13.107	
CD03.2	Verify endorsement for authorized cargoes	46 CFR 13.109	
CD03.3	Verify basic training for oil/chemical tanker cargo operations	46 CFR 13.609 STCW A-V/1-1.1	
CD03.4	Verify advanced training for oil/chemical tanker cargo operations	46 CFR 13.603 & .605 STCW A-V/1-1.2	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-CD04 Review certificate of inhibition or stabilization

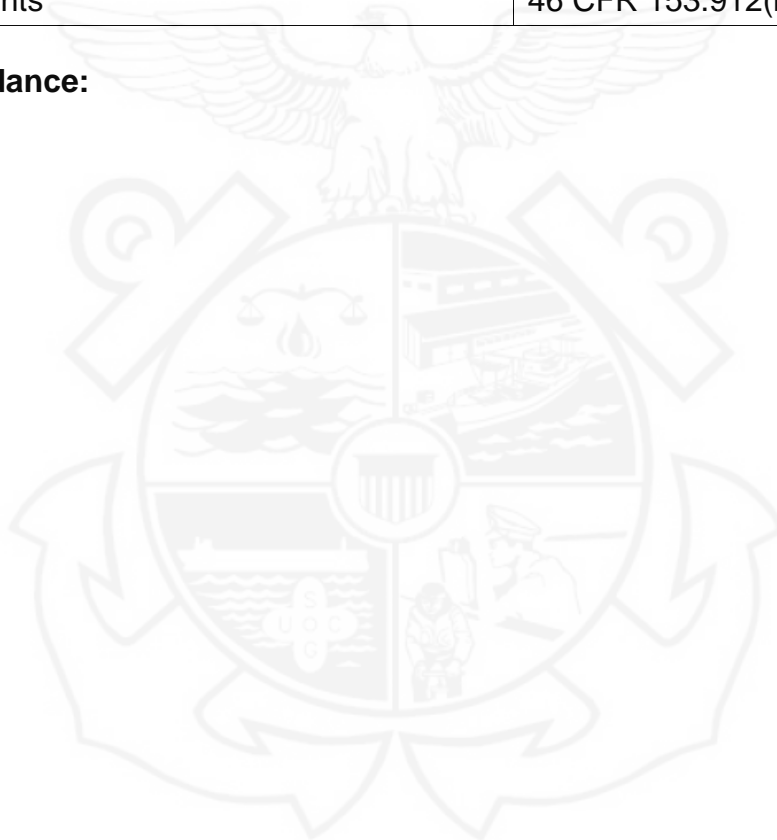
Condition: *While validating certificates and documents*

Standard: *In compliance with applicable policies, laws, regulations and standards*

References: 1. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials

Steps		References	Initials
CD04.1	Verify presence	46 CFR 153.912(a)	
CD04.2	Verify contents	46 CFR 153.912(b)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-CD05 Reviewing loading information

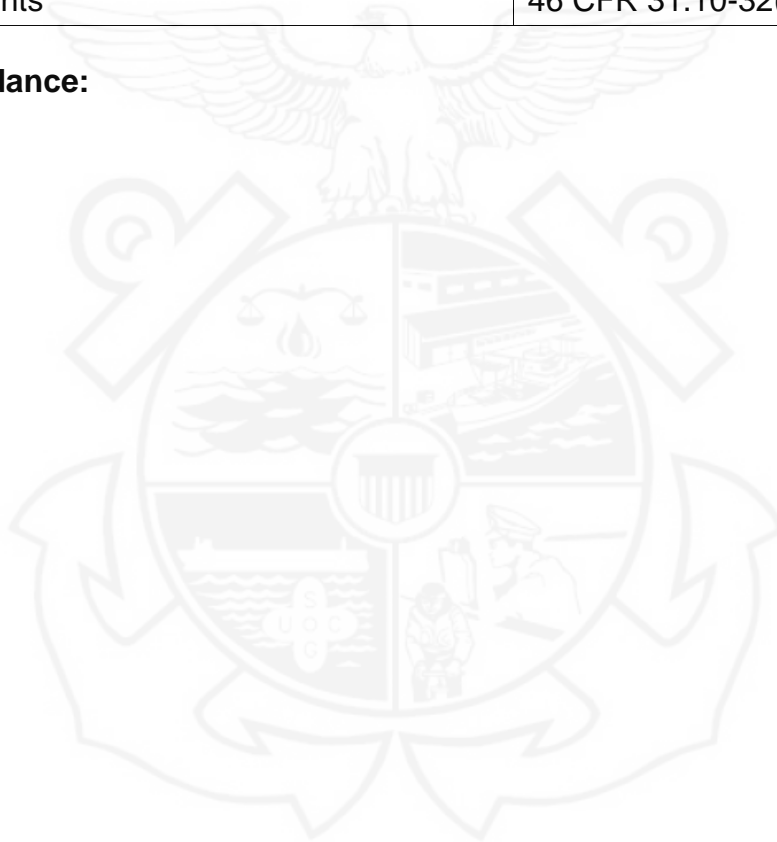
Condition: While validating certificates and documents

Standard: In compliance with applicable policies, laws, regulations and standards

References: 1. Title 46, Code of Federal Regulations Part 31 Tank Vessels - Inspection & Certification

Steps		References	Initials
CD05.1	Verify presence	46 CFR 31.10-32(b)	
CD05.2	Verify contents	46 CFR 31.10-32(b)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Certificates and Documents (CD)

Tank Vessel

Task: HT-CD06 Review cargo information document

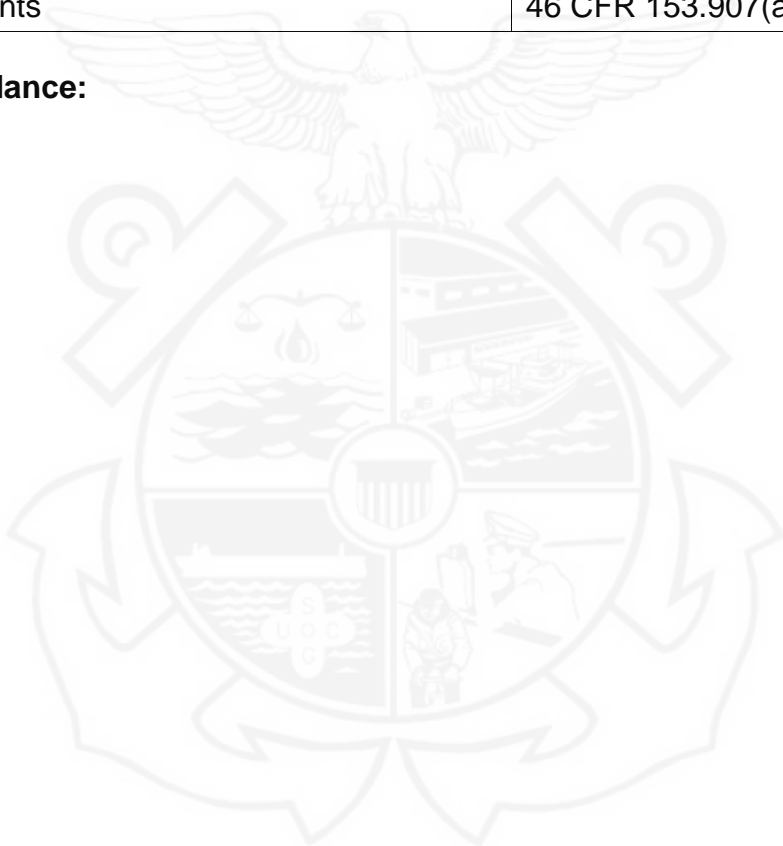
Condition: While validating certificates and documents

Standard: In compliance with applicable policies, laws, regulations and standards

References: 1. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials

Steps		References	Initials
CD06.1	Verify presence	46 CFR 153.907(a)	
CD06.2	Verify contents	46 CFR 153.907(a) & (b)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Logs and Manuals Examination (LM)

Tank Vessel

Task: HT-LM01 Review Oil Record Book Part II (Cargo/Ballast Operations)

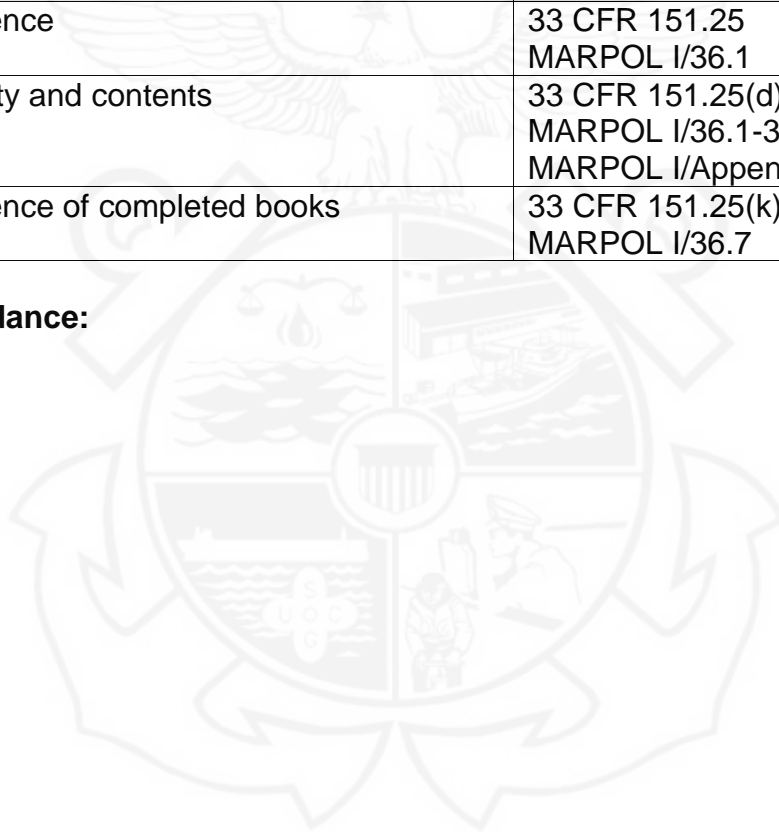
Condition: While validating logs and manuals

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 33, Code of Federal Regulations Part 151 Vessels Carrying Oil, NLS, Garbage, Municipal or Commercial Waste & Ballast Water
 2. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended

Steps		References	Initials
LM01.1	Verify presence	33 CFR 151.25 MARPOL I/36.1	
LM01.2	Verify validity and contents	33 CFR 151.25(d) MARPOL I/36.1-36.6 MARPOL I/Appendix III	
LM01.3	Verify presence of completed books	33 CFR 151.25(k) MARPOL I/36.7	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Logs and Manuals Examination (LM)

Tank Vessel

Task: HT-LM02 Review cargo and ballast system instructional manual

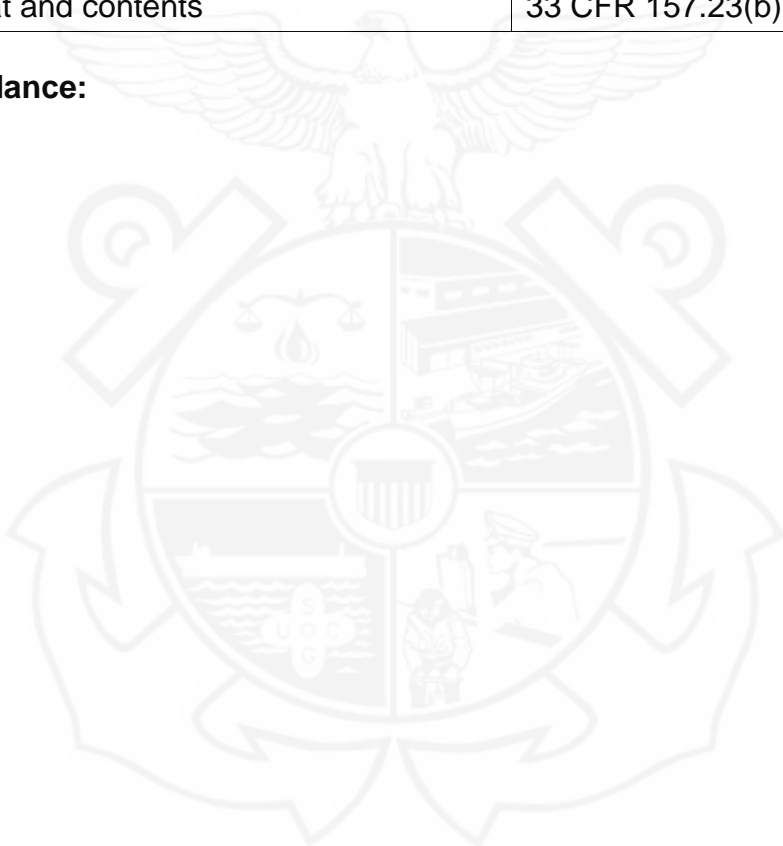
Condition: While validating logs and manuals

Standard: In compliance with applicable policies, laws, regulations and standards

References: 1. Title 33, Code of Federal Regulations Part 157 Rules for the Protection of the Marine Environment Relating to Tank Vessels Carrying Oil in Bulk

Steps		References	Initials
LM02.1	Verify presence	33 CFR 157.23(a)	
LM02.2	Verify format and contents	33 CFR 157.23(b)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Logs and Manuals Examination (LM)

Tank Vessel

Task: HT-LM03 Review inert gas operation and maintenance manual

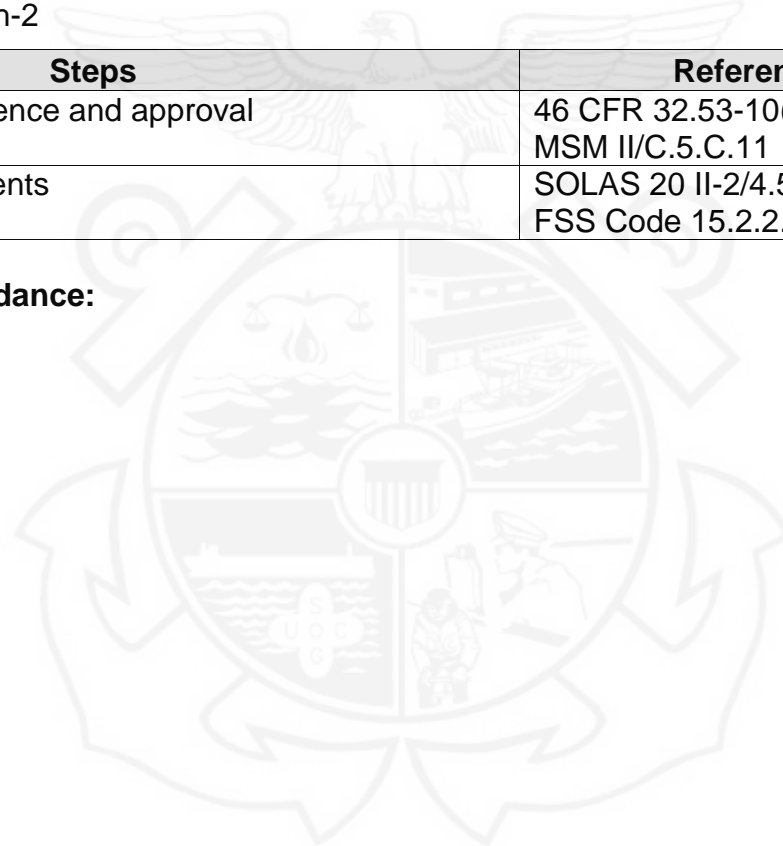
Condition: While validating logs and manuals

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 32 Tank Vessels - Special Equipment, Machinery & Hull Requirements
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. International Code for Fire Safety Systems (FSS Code)
 4. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2

Steps		References	Initials
LM03.1	Verify presence and approval	46 CFR 32.53-10(a) MSM II/C.5.C.11	
LM03.2	Verify contents	SOLAS 20 II-2/4.5.5.1.1 FSS Code 15.2.2.5	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Logs and Manuals Examination (LM)

Tank Vessel

Task: HT-LM04 Review Cargo Record Book and Procedures & Arrangements (P&A) Manual

Condition: While validating logs and manuals

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials
 2. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended
 3. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2

Steps		References	Initials
LM04.1	Verify presence	46 CFR 153.490 MARPOL II/14.1 MSM II/E.1.E.3.b	
LM04.2	Verify validity	46 CFR 153.490 MARPOL II/14.1 MSM II/E.1.E.2.e.2	
LM04.3	Verify contents	46 CFR 153.490(b) MARPOL II/14.2 MARPOL II/Appendix IV	

Verifying Officer Guidance: *Verify that the plans have been updated to list X, Y, Z & OS pollution categories as opposed to A, B, C & D. Some IBC Code Chapter 18 cargoes are category Z and, therefore, require this manual.*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Logs and Manuals Examination (LM)

Tank Vessel

Task: HT-LM05 Review Shipboard Marine Pollution Emergency Plan (SMPEP)

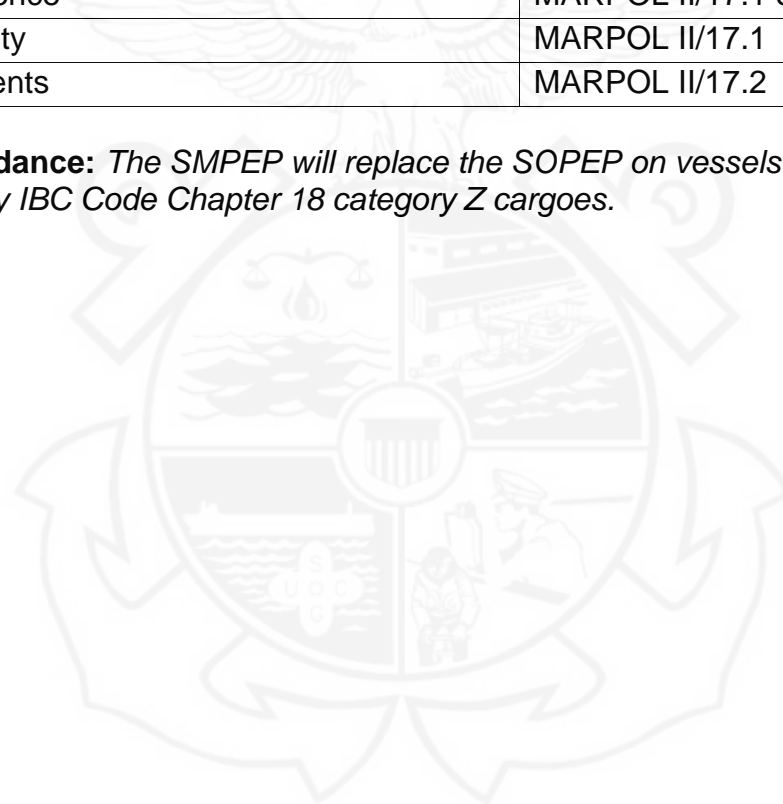
Condition: While validating logs and manuals

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 33, Code of Federal Regulations Part 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
 2. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended

Steps		References	Initials
LM05.1	Verify presence	MARPOL II/17.1 & .3	
LM05.2	Verify validity	MARPOL II/17.1	
LM05.3	Verify contents	MARPOL II/17.2	

Verifying Officer Guidance: *The SMPEP will replace the SOPEP on vessels with an NLS Certificate and authorized to carry IBC Code Chapter 18 category Z cargoes.*



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Logs and Manuals Examination (LM)

Tank Vessel

Task: HT-LM06 Review Tank Vessel Response Plan (TVRP)

Condition: While validating certificates and documents

Standard: In compliance with applicable policies, laws, regulations and standards

References: 1. Title 33, Code of Federal Regulations Part 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels

Steps		References	Initials
LM06.1	Verify presence	33 CFR 155.1015 33 CFR 155.1025 33 CFR 155.1030(i)	
LM06.2	Verify validity	33 CFR 155.1065(c)	
LM06.3	Verify contents	33 CFR 155.1030 33 CFR 155.1035 33 CFR 155.1045	
LM06.4	Verify training	33 CFR 155.1055	
LM06.5	Verify exercises	33 CFR 155.1060	
LM06.6	Verify inspection & maintenance of response resources	33 CFR 155.1062	
LM06.7	Verify annual review	33 CFR 155.1070	

Verifying Officer Guidance: *The TVRP should also be verified in MISLE prior to the vessel examination. MSIB 38-13 provides additional information on notice of arrival submission requirements for Control Numbers.*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

General Health & Safety Examination (GH)

Tank Vessel

Task: HT-GH01 Inspect shower and eye wash station

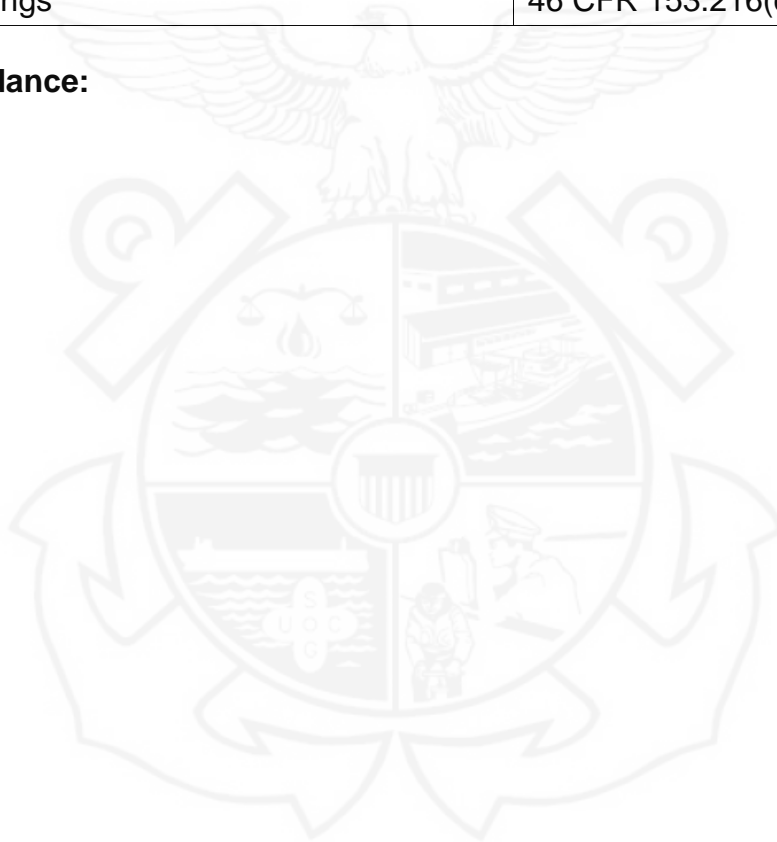
Condition: During general health and safety inspection

Standard: In compliance with applicable policies, laws, regulations and standards

References: 1. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials

Steps		References	Initials
GH01.1	Verify installation and operation	46 CFR 153.216(b) & (c)	
GH01.2	Verify markings	46 CFR 153.216(c)(4)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

General Health & Safety Inspection (GH)

Tank Vessel

Task: HT-GH02 Inspect Personnel emergency and safety equipment

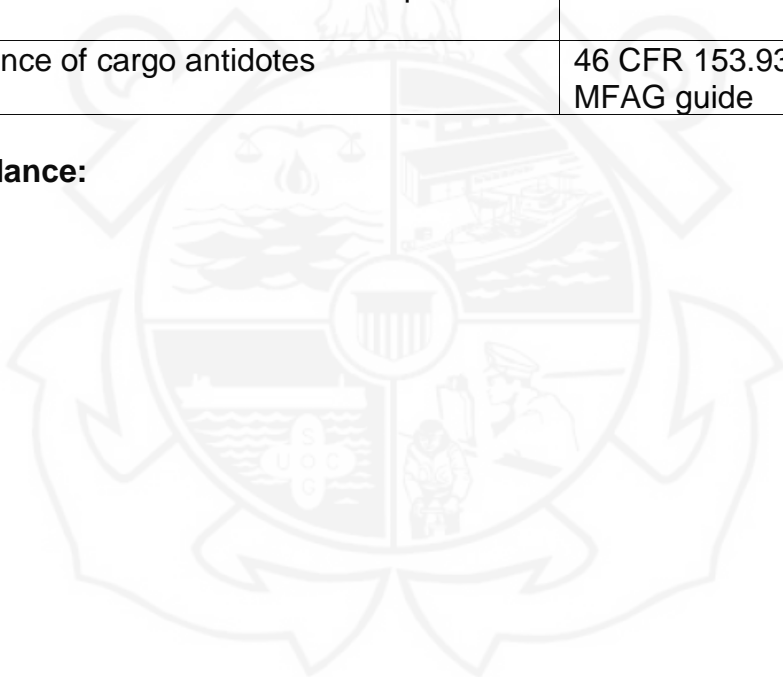
Condition: *During general health and safety inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials
 2. IMO Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG)

Steps		References	Initials
GH02.1	Verify presence of equipment for lifting an injured person from a pumproom or a cargo tank.	46 CFR 153.214(a)	
GH02.2	Verify presence of additional equipment	46 CFR 153.214(b)	
GH02.3	Verify presence and condition of toxic vapor equipment	46 CFR 153.527	
GH02.4	Verify presence of cargo antidotes	46 CFR 153.930 MFAG guide	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Lifesaving Equipment Examination (LS)

Tank Vessel

Task: HT-LS01 Inspect lifeboats

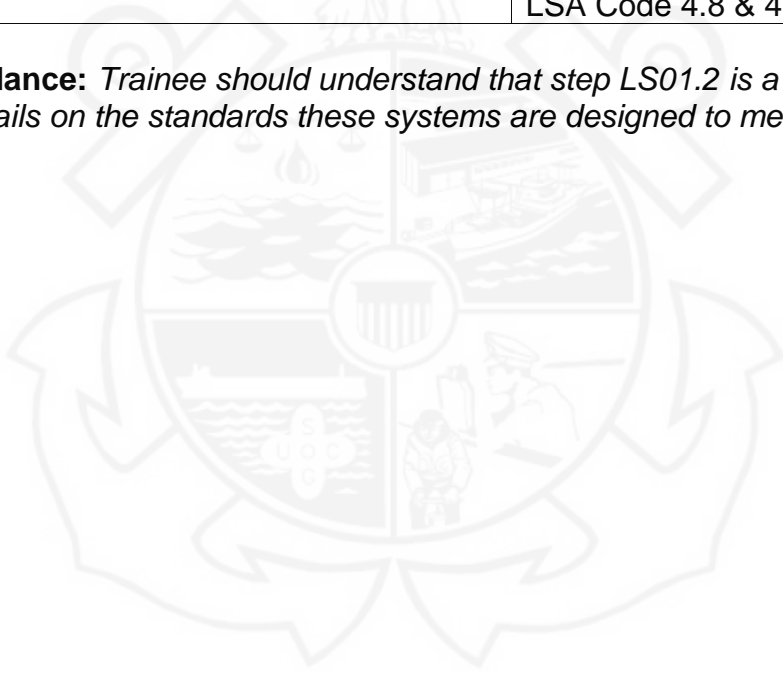
Condition: *During lifesaving equipment inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 199 Lifesaving Appliances & Arrangements
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. Lifesaving Appliances including LSA Code

Steps		References	Initials
LS01.1	Verify equipped with fire protection system	46 CFR 199.261(g) & .290(b) SOLAS 20 III/31.1.7 LSA Code 4.9	
LS01.2	Verify self-contained air support system	46 CFR 199.261(f) LSA Code 4.8 & 4.9	

Verifying Officer Guidance: *Trainee should understand that step LS01.2 is a visual exam and the reference provides details on the standards these systems are designed to meet.*



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Firefighting Systems Inspection (FF)

Tank Vessel

Task: HT-FF01 Inspect fixed fire-extinguishing system(s) for cargo pump rooms

Condition: *During firefighting equipment inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 34 Tank Vessels - Firefighting Equipment
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. International Code for Fire Safety Systems (FSS Code)

Steps		References	Initials
FF01.1	Verify type of agent and coverage	46 CFR 34.05-5(a)(4) SOLAS 20 II-2/10.9.1	
FF01.2	Verify CO2 system compliance	46 CFR 34.15-5(d) SOLAS 20 II-2/10.9.1.1 FSS Code 5.2.2	
FF01.3	Verify foam system compliance	46 CFR 34.17 SOLAS 20 II-2/10.9.1.2 FSS Code 6	
FF01.4	Verify water spraying system compliance	46 CFR 34.25 SOLAS 20 II-2/10.9.1.3 FSS Code 7	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Firefighting Systems Inspection (FF)

Tank Vessel

Task: HT-FF02 Inspect fixed deck foam system

Condition: During firefighting equipment inspection

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 34 Fire Fighting Equipment
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. International Code for Fire Safety Systems (FSS Code)
 4. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2
 5. IMO MSC.1/Circ. 1312 Revised Guidelines for the Performance & Testing Criteria, and Surveys of Foam Concentrates for Fixed Fire-Extinguishing Systems

Steps		References	Initials
FF02.1	Verify presence	46 CFR 34.20-1 SOLAS 20 II-2/10.8 FSS Code 14.2.1.1	
FF02.2	Verify operation of fire main isolation valves	SOLAS 20 II-2/10.8 FSS Code 14.2.3.4	
FF02.3	Verify presence of applicators and monitors	46 CFR 34.20-20 & .20-25 FSS Code 14.2.2.2 FSS Code 14.2.3.2.2	
FF02.4	Verify location of main operation station	46 CFR 34.20-10(b) FSS Code 14.2.3.1.1	
FF02.5	Verify operating instructions	46 CFR 34.20-10(c).	
FF02.6	Verify foam analysis maintenance reports	MSM Vol II C.2.1.1 FSS Code 14.2.2.1.4 IMO MSC.1/Circ. 1312	

Verifying Officer Guidance: *Trainee should be aware that no foam is to be discharged during system tests. NVIC 11-82 Deck Foam Systems for Polar Solvents provides amplifying information regarding the technical aspects of polar foam systems.*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Firefighting Systems Inspection (FF)

Tank Vessel

Task: HT-FF03 Inspect additional emergency (fire fighting) outfits and equipment

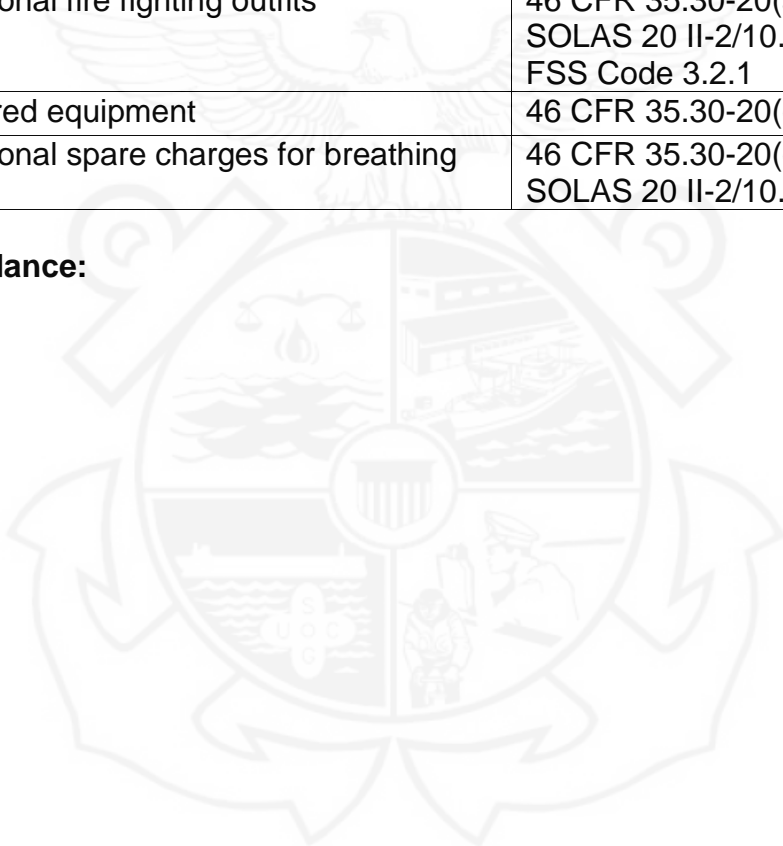
Condition: During firefighting equipment inspection

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 35 Tank Vessels - Operations
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. International Code for Fire Safety Systems (FSS Code)

Steps		References	Initials
FF03.1	Verify additional fire fighting outfits	46 CFR 35.30-20(a) SOLAS 20 II-2/10.10.2.3 FSS Code 3.2.1	
FF03.2	Verify required equipment	46 CFR 35.30-20(c)	
FF03.3	Verify additional spare charges for breathing apparatus	46 CFR 35.30-20(c)(1) SOLAS 20 II-2/10.10.2.5	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Electrical Systems Inspection (ES)

Tank Vessel

Task: HT-ES01 Inspect components installed in designated hazardous locations

Condition: *During electrical systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 32 Tank Vessels - Special Equipment, Machinery & Hull Requirements
 2. Title 46, Code of Federal Regulations Part 111 Electric Systems General Requirements
 3. IEEE Std 45, Recommended Practice for Electrical Installations on Shipboard, 1998

Steps		References	Initials
ES01.1	Determine what is a hazardous location	46 CFR 111.105-1 46 CFR 111.105-41 & -43	
ES01.2	Verify wiring methods for hazardous locations	46 CFR 32.45-1 46 CFR 111.105 IEEE 45-1998/Section 33	
ES01.3	Verify design and conditions of fixtures are appropriate	46 CFR 111.105-29 46 CFR 111.105-31	
ES01.4	Verify installation on combustible liquid cargo carriers	46 CFR 111.105-29	
ES01.5	Verify installation on flammable or combustible cargo below 140 degrees F	46 CFR 111.105-31	

Verifying Officer Guidance:

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Pollution Prevention Inspection (PP)

Tank Vessel

Task: HT-PP01 Inspect deck containment

Condition: *During pollution prevention inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 33, Code of Federal Regulations Part 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
 2. Title 33, Code of Federal Regulations Part 156 Oil & Hazardous Material Transfer Operations

Steps		References	Initials
PP01.1	Verify adequate containment	33 CFR 155.310(a) 33 CFR 156.120(n)	
PP01.2	Verify adequate peripheral cargo deck coamings	33 CFR 155.310(c)(4) 33 CFR 156.120(n)	
PP01.3	Verify means of drainage	33 CFR 155.310(a)(2) 33 CFR 156.120(o)	
PP01.4	Verify mechanical means of closing drains or scuppers	33 CFR 155.310(a)(3) 33 CFR 156.120(o)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Topside Equipment Inspection (TI)

Tank Vessel

Task: HT-TI01 Inspect access to bow and emergency towing arrangements

Condition: While on deck walk

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 33, Code of Federal Regulations Part 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. International Convention on Load Lines (ICLL) 1966, as amended
 4. IMO Resolution MSC.62(67) Guidelines for Safe Access to Tanker Bows
 5. NVIC 08-89 Recommendations Concerning Emergency Towing of Tankers

Steps		References	Initials
TI01.1	Verify safe access	SOLAS 20 II-1/3-3.2 ICLL 25(4) & 26(2) IMO Res MSC.62(67)	
TI01.2	Verify emergency towing arrangements	33 CFR 155.235 NVIC 08-89 SOLAS 20 II-1/3-4 .1	
TI01.3	Verify design is approved by the Administration	33 CFR 155.235 SOLAS 20 II-1/3-4.2.2 SOLAS 20 II-1/3-4.3	

Verifying Officer Guidance: Per IMO Resolution MSC.35(63), all emergency towing arrangements should be clearly marked to facilitate safe and effective use even in darkness and poor visibility. Many of these arrangements are equipped with lighted buoys that can be checked to verify t

Inspector's Name: (Last, First, Initial)

EMPLID:

Verifying Officer's Signature:

Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS01 Inspect cargo tank venting arrangements**Condition:** During cargo environmental control inspection**Standard:** In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 32 Tank Vessels - Special Equipment, Machinery & Hull Requirements
 2. Title 46, Code of Federal Regulations Part 39 Tank Vessels - Vapor Control Systems
 3. Title 46, Code of Federal Regulations Part 56 Piping Systems & Appurtenances
 4. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 5. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2

Steps		References	Initials
CS01.1	Verify materiel condition	46 CFR 32.55-20	
CS01.2	Verify condition of flame screens and arresters	46 CFR 32.20-10 MSM II/F.3.F.17	
CS01.3	Verify height of tank venting system	46 CFR 32.55-20	
CS01.4	Verify horizontal distance from air intakes and openings	46 CFR 32.55-20(b) SOLAS 20 II-2/4.5.3.4.1 SOLAS 20 II-2/11.6.2.2	
CS01.5	Verify operation of visual indicators	46 CFR 56.50-1(g)(2)(iii) SOLAS 20 II-2/4.5.3.2.2 SOLAS 20 II-2/11.6.3.3	
CS01.6	Verify presence of blank flanges	SOLAS 20 II-2/4.5.3.5	
CS01.7	Verify operation of pressure/vacuum valves	46 CFR 32.20-5	
CS01.8	Verify operation of vapor line pressure sensors and alarms	46 CFR 39.2013 SOLAS 20 II-2/11.6.3.2	

Verifying Officer Guidance: Maintenance of the pressure vacuum valves is not directly addressed in the regulations. The vessel's Safety Management System should address the inspection intervals and routine maintenance which is developed from the manufacturer's recommendations.

Inspector's Name: (Last, First, Initial)

EMPLID:

Verifying Officer's Signature:

Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS02 Inspect cargo pump room

Condition: During cargo systems inspection

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 32 Tank Vessels - Special Equipment, Machinery & Hull Requirements
 2. Title 46, Code of Federal Regulations Parts 34 & 153
 3. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 4. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended
 5. IMO MSC.1/Circ. 1370 Guidelines for the Design, Construction & Testing of Fixed Hydrocarbon Gas Detection Systems
 6. COMDTINST M16000.6 Marine Safety Manual Volume I Administration & Management

Steps		References	Initials
CS02.1	Verify Marine Chemist Certificate prior to entry	MSM I/10 App. A	
CS02.2	Verify operation and condition of ventilation system	46 CFR 32.60-20 46 CFR 32.55-1 SOLAS 20 II-2/4.5.4.1	
CS02.3	Verify lighting/ventilation interlock	SOLAS 20 II-2/4.5.10.1.2	
CS02.4	Verify operation of hydrocarbon gas monitoring system	SOLAS 20 II-2/4.5.10.1.3 SOLAS 20 II-2/1.6.7 IMO MSC.1/Circ.1370	
CS02.5	Verify operation of bilge monitoring devices	46 CFR 153.334(b)(2) SOLAS 20 II-2/4.5.10.1.4	
CS02.6	Verify electrical equipment	46 CFR 32.65-20 SOLAS 20 II-1/45.11	
CS02.7	Verify fixed fire extinguishing system	46 CFR 34.05-5(a)(4) SOLAS 20 II-2/10.9.1 & .2	
CS02.8	Examine spool piece	MARPOL I/1.18 UI 3.1	
CS02.9	Verify bulkhead between pump room and engine room is gas tight	46 CFR 32.60-20(a) SOLAS 20 II-2/9.2.4 Table 9.7	
CS02.10	Verify hoisting arrangements	46 CFR 153.332	
CS02.11	Verify presence of toxic vapor protection	46 CFR 153.526(b) & .336(b)	

Verifying Officer Guidance: Trainee should be aware that though there is no requirement for an EEBD to be located at the bottom of the pump room, if it is indicated on the vessel's Fire Control Plan, the trainee should verify its presence.

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS03 Inspect designated observation area

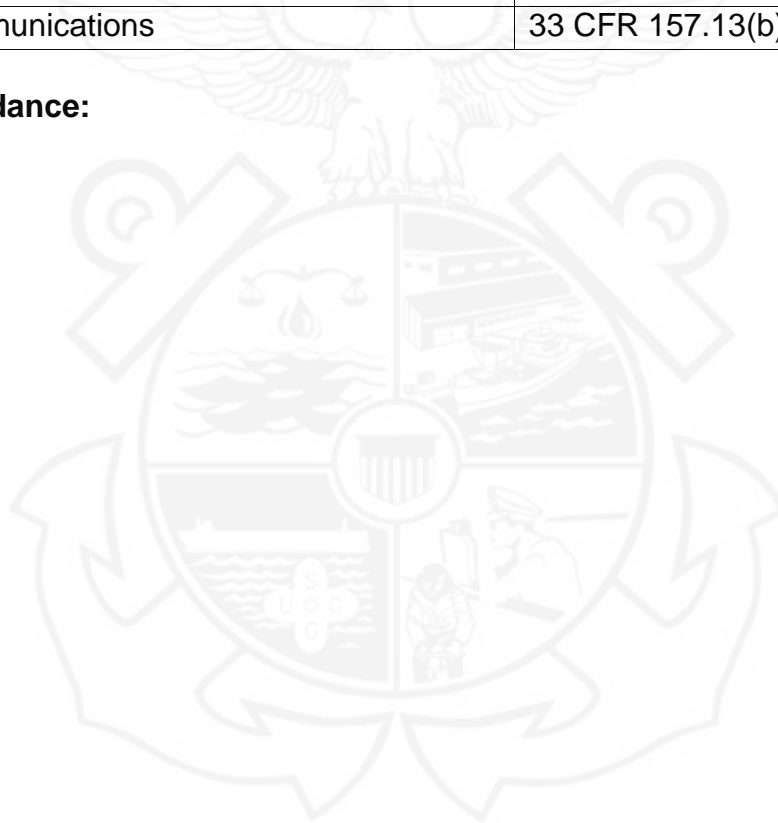
Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

References: 1. Title 33, Code of Federal Regulations Part 157 Rules for the Protection of the Marine Environment Relating to Tank Vessels Carrying Oil in Bulk

Steps		References	Initials
CS03.1	Verify location	33 CFR 157.13	
CS03.2	Verify means to stop discharge of effluent	33 CFR 157.13(b)(1)	
CS03.3	Verify communications	33 CFR 157.13(b)(2)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS04 Inspect liquid cargo transfer systems

Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 33, Code of Federal Regulations Part 154 Facilities Transferring Oil or Hazardous Materials in Bulk
 2. Title 33, Code of Federal Regulations Part 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
 3. Title 33, Code of Federal Regulations Part 156 Oil & Hazardous Material Transfer Operations
 4. Title 46, Code of Federal Regulations Part 35 Tank Vessels - Operations
 5. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials

Steps		References	Initials
CS04.1	Examine condition of piping and hose(s)	46 CFR 156.170	
CS04.2	Verify operation of cargo pump remote shutdown devices	46 CFR 153.296 (a) - (f) 33 CFR 155.780 33 CFR 156.170(c)(5)	
CS04.3	Verify hoses are marked	33 CFR 155.800 33 CFR 154.500(e) & (f)	
CS04.4	Verify hose and hose assembly	33 CFR 154.500 (a)-(d) 33 CFR 155.800 33 CFR 156.170	
CS04.5	Verify transfer equipment tests and inspections	33 CFR 156.170(c)(1)	
CS04.6	Verify warning signals and signs	46 CFR 35.30-1 46 CFR 153.296(g) 46 CFR 153.955	

Verifying Officer Guidance: *Trainee should use the vessel's transfer procedures to assist with this examination (MI-PP03).*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS05 Inspect Vapor Collection System (VCS)

Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

References: 1. Title 46, Code of Federal Regulations Part 39 Tank Vessels - Vapor Control Systems

Steps		References	Initials
CS05.1	Examine vapor piping	46 CFR 39.2001 46 CFR 39.2014	
CS05.2	Verify electrically bonded	46 CFR 39.2001(c)	
CS05.3	Examine drain lines	46 CFR 39.2001(d)	
CS05.4	Verify system can be isolated from Inert Gas System	46 CFR 39.2001(e)	
CS05.5	Verify presence of isolation valve and indicator	46 CFR 39.2001(g)	
CS05.6	Verify markings on vapor piping	46 CFR 39.2001(h)	
CS05.7	Verify presence of flange stud	46 CFR 39.2001(j)	
CS05.8	Verify closed gauging system	46 CFR 39.2003(a)	
CS05.9	Verify pressure indicator for main vapor collection line	46 CFR 39.2013(a)	
CS05.10	Verify operation of pressure alarms	46 CFR 39.2013(b)	

Verifying Officer Guidance: *The Vapor Collection System approval letter and/or manual should also indicate the vessel's transfer procedures have been reviewed to include a description of the VCS on the vessel outlined in 33 CFR 155.750(d).*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS06 Inspect tank liquid high level and overfill protection

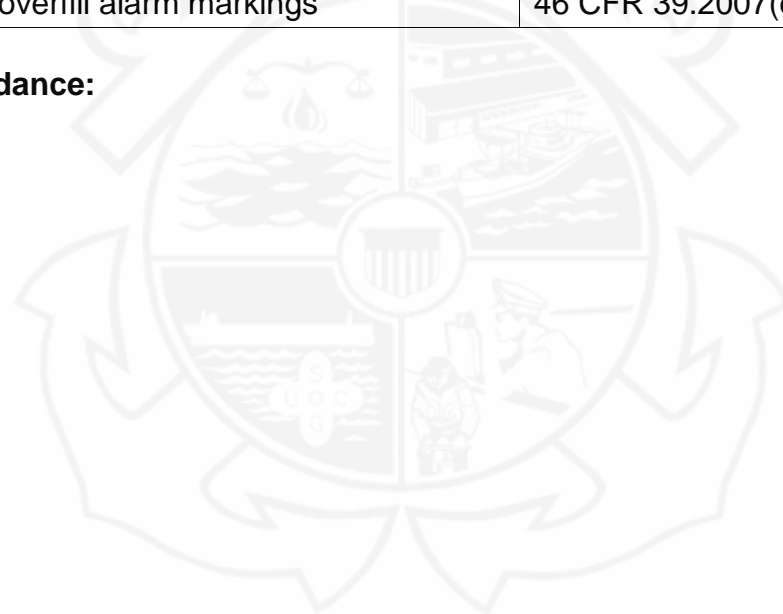
Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 39 Tank Vessels - Vapor Control Systems
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended

Steps		References	Initials
CS06.1	Verify overfill alarms	46 CFR 39.2007(a) SOLAS 20 II-2/11.6.1	
CS06.2	Verify high level alarm settings	46 CFR 39.2007(c)(1)	
CS06.3	Witness operational test of audible and visual alarm indicators	46 CFR 39.2007(c)(3) 46 CFR 39.2007(d)(3)	
CS06.4	Verify high level alarm markings	46 CFR 39.2007(c)(2)	
CS06.5	Verify tank overfill alarm markings	46 CFR 39.2007(d)(2)	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS07 Inspect fixed/portable vapor detection instruments

Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 46, Code of Federal Regulations Part 35 Tank Vessels - Operations
 2. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials
 3. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 4. International Code for Fire Safety Systems (FSS Code)

Steps		References	Initials
CS07.1	Verify operation of flammable vapor device	46 CFR 35.30-15 & 153.465 SOLAS 20 II-2/4.5.7.1 SOLAS 20 II-2/4.5.7.2.1	
CS07.2	Verify operation of oxygen content device	SOLAS 20 II-2/4.5.7.1 & 7.2.1 FSS Code 16.2.2.3.2	
CS07.3	Verify means to calibrate fixed and portable instruments	SOLAS 20 II-2/4.5.7.1 FSS Code 16.2.2.3.4	
CS07.4	Verify operation of fixed gas sampling line system	SOLAS 20 II-2/4.5.7.2.2 & .3 FSS Code 16.2.2.3.4	
CS07.5	Verify presence of toxic vapor detection device(s)	46 CFR 153.526(a)	

Verifying Officer Guidance: *Trainee should witness crew's ability to calibrate portable O2 sensor.*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS08 Inspect Inert Gas System (IGS)

Condition: During cargo systems inspection

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 32 Tank Vessels - Special Equipment, Machinery & Hull Requirements
 2. International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended
 3. International Code for Fire Safety Systems (FSS Code)
 4. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2

Steps		References	Initials
CS08.1	Parent cites	46 CFR 32.53-10 SOLAS 20 II-2/4.5.5	
CS08.2	Verify presence	46 CFR 32.53-1(a) & (b) SOLAS 20 II-2/4.5.5.1.1 & .2 SOLAS 20 II-2/4.5.5.2	
CS08.3	Determine type installed	SOLAS 20 II-2/4.5.5.3.2 FSS Code 15.2.2.1.4	
CS08.4	Verify volume of inert gas being delivered	46 CFR 32.53-30 SOLAS 20 II-2/4.5.5.3.2 FSS Code 15.2.2.1.2.4	
CS08.5	Verify oxygen content of inert gas in IGS supply main	SOLAS 20 II-2/4.5.5.3.2 FSS Code 15.2.2.1.2.5 & .4.2.2 MSM II C.5.E	
CS08.6	Verify oxygen content of inert gas forward of non-return devices	FSS Code 15.2.2.1.2.1 MSM II C.5.E	
CS08.7	Verify arrangements within gas-safe zone (i.e. scrubbers, blowers)	FSS Code 15.2.3.1.3 & .4 MSM II C.5.E	
CS08.8	Verify arrangement of pressure/vacuum breaking device	SOLAS 20 II-2/11.6.3.4 MSM II C.5.E	
CS08.9	Verify arrangement of water seal on deck	46 CFR 32.53-10(b)(1) FSS Code 15.2.2.3.1.3, .7 & .9 MSM II C.5.E	
CS08.10	Verify arrangement of non-return valve on deck	FSS Code 15.2.2.3.1.3 MSM II C.5.E	
CS08.11	Verify ability to connect inert gas main to an external supply of inert gas	FSS Code 15.2.2.3.2.6	

Verifying Officer Guidance: Check MSDS prior to testing the atmosphere of any tanks with portable atmospheric analyzers. If the water seal on deck is a dry-type it must have MSC approval letter. See MSM II/D.6.C.6.f(3)(d) for guidance on witnessing the random sampling of cargo tanks.

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS09 Witness tests of Inert Gas System (IGS) audible and visual alarms and shutdowns

Condition: During cargo systems inspection

Standard: In compliance with applicable policies, laws, regulations and standards

- References:**
1. Title 46, Code of Federal Regulations Part 32 Tank Vessels - Special Equipment, Machinery & Hull Requirements
 2. International Code for Fire Safety Systems (FSS Code)
 3. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2

Steps		References	Initials
CS09.1	Parent cites	46 CFR 32.53-10 SOLAS 20 II-2/4.5.5	
CS09.2	Witness low water pressure or low water flow to the cooling & scrubbing arrangement test	FSS Code 15.2.3.2.2.3 FSS Code 15.2.2.2.2	
CS09.3	Witness high water level in flue gas scrubber alarm test	FSS Code 15.2.3.2.2.4 FSS Code 15.2.2.2.2	
CS09.4	Witness high temperature alarm shutdown	FSS Code 15.2.3.2.2.5 FSS Code 15.2.2.2.2 & .2.3.2.1 MSM II/C.5.F.3.A(3)	
CS09.5	Witness IGS blower failure alarm & automatic shutdown of main or regulating valve	FSS Code 15.2.3.2.2.6 FSS Code 15.2.2.2.2 MSM II/C.5.F.3.A(6)	
CS09.6	Witness test of high oxygen content alarm in IGS main	FSS Code 15.2.2.4.5.1.1 FSS Code 15.2.2.4.5.2 MSM II/C.5.F.3.A(1)	
CS09.7	Witness test of failure of power to auto controlled system for gas regulating valve and indicating devices alarms	FSS Code 15.2.2.4.5.1.2 & .5 MSM II/C.5.F.3.A(7)	
CS09.8	Witness test for low water alarm for water seal	46 CFR 32.53-10(b)(1) FSS Code 15.2.3.2.2.7 MSM II/C.5.F.3.A(4)	
CS09.9	Witness test for low gas pressure in IG main forward of all non-return devices alarm	FSS Code 15.2.2.4.5.1.3 & 5.2 MSM II/C.5.F.3.A(2)	
CS09.10	Witness test for high gas pressure in IG main forward of all non-return devices alarm(s)	FSS Code 15.2.2.4.5.1.4 FSS Code 15.2.2.4.2 MSM II/C.5.F.3.A(5)	
CS09.11	Verify fuel oil supply alarm	FSS Code 15.2.3.2.2.1 FSS Code 15.2.2.2.2	
CS09.12	Verify nitrogen generator alarms	FSS Code 15.2.4.2.2	

Verifying Officer Guidance:

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS10 Inspect oil discharge monitoring and control system (ODME)

Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 33, Code of Federal Regulations Part 157 Rules for the Protection of the Marine Environment Relating to Tank Vessels Carrying Oil in Bulk
 2. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended
 3. COMDTINST M16000.7B Marine Safety Manual Volume II Material Inspection Ch-2

Steps		References	Initials
CS10.1	Verify approval	33 CFR 157.12 MARPOL 1/31.1 MSM II/E.1.D.5	
CS10.2	Verify operation of recording device	33 CFR 157.12d(a)(4)(viii) MARPOL 1/31.2	
CS10.3	Verify approved operation manual	33 CFR 157.12g(c) MARPOL I/31.4	
CS10.4	Verify recording device records	33 CFR 157.12d(h)	

Verifying Officer Guidance: *Trainee should know that step 3 is spot check. Trainee should be aware of the special requirements for the ODME if the ship carries biofuel mixtures under MARPOL Annex I IAW the 2011 Guidelines for the carriage of blends of petroleum oil and biofuels.*

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS11 Inspect Crude Oil Washing (COW) system

Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

- References:**
1. Title 33, Code of Federal Regulations Part 157 Rules for the Protection of the Marine Environment Relating to Tank Vessels Carrying Oil in Bulk
 2. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended

Steps		References	Initials
CS11.1	Verify presence	33 CFR 157.10(e) MARPOL 1/33	
CS11.2	Verify approved	33 CFR 157.112 & .116	
CS11.3	Review Operations and Equipment Manual	33 CFR 157.116 MARPOL 1/35	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Cargo Systems Inspection (CS)

Tank Vessel

Task: HT-CS12 Inspect vessel stability instrument

Condition: *During cargo systems inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

References: 1. International Convention for the Prevention of Pollution from Ships (MARPOL) 1973, as amended

Steps		References	Initials
CS12.1	Verify presence	MARPOL Annex I /28.6	
CS12.2	Confirm contents are for particular vessel	MARPOL Annex I /28 6.2	
CS12.3	Verify approval	MARPOL Annex I /28 6.3	

Verifying Officer Guidance:



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Task: HT-CS13 Inspect leak detection system

Condition: *During inspection*

Standard: *In compliance with applicable policies, laws, regulations and standards*

References: 2. Title 46, Code of Federal Regulations Part 38 Liquefied flammable gases

Steps		References	Initials
CS13.3	Verify location of sensors	46 CFR 38.15-10(a)	
CS13.3	Verify location of detection system instruments	46 CFR 38.15-10(b)	
CS13.3	Verify operation of audio and visual alarms	46 CFR 38.15-10(b)	
CS13.4	Verify detector sampling intervals	46 CFR 38.15-10(b)	

Verifying Officer Guidance:

Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

Follow Up Actions (FU)

Tank Vessel

Task: HT-FU01 Issue or endorse vessel's Certificate of Inspection

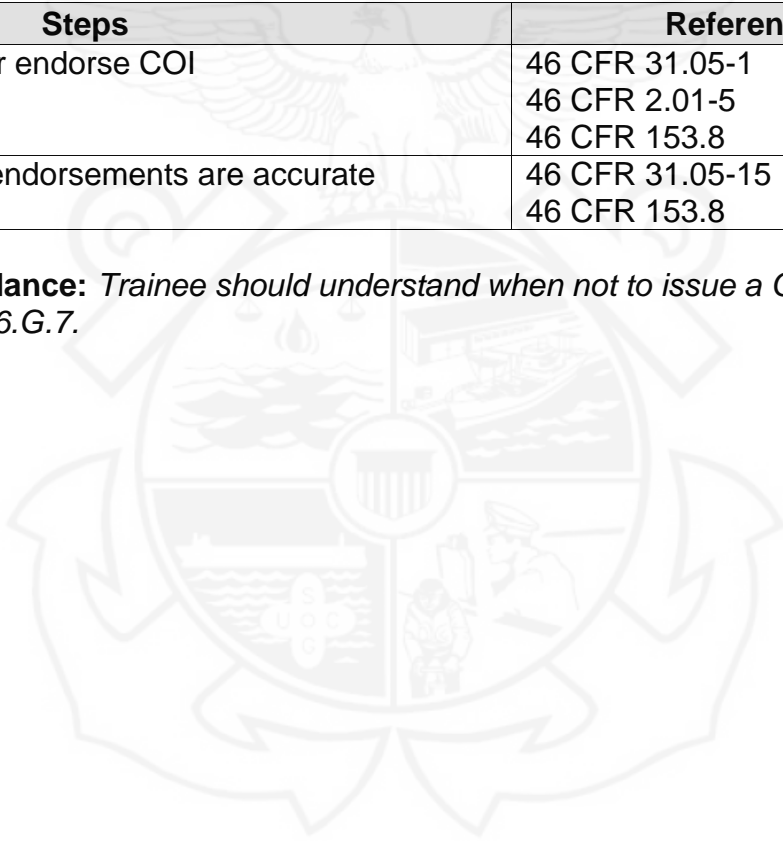
Condition: Upon completion of inspection

Standard: In accordance with current policies, procedures and processes

- References:**
1. Title 46, Code of Federal Regulations Part 2 Vessel Inspections
 2. Title 46, Code of Federal Regulations Part 31 Tank Vessels - Inspection & Certification
 3. Title 46, Code of Federal Regulations Part 153 Ships Carrying Bulk Liquid, Liquefied Gas or Compressed Gas Hazardous Materials

Steps		References	Initials
FU01.1	Issue and/or endorse COI	46 CFR 31.05-1 46 CFR 2.01-5 46 CFR 153.8	
FU01.2	Verify COI endorsements are accurate	46 CFR 31.05-15 46 CFR 153.8	

Verifying Officer Guidance: Trainee should understand when not to issue a COI IAW MSM II/D.6.G.2 & MSM II/D.6.G.7.



Inspector's Name: (Last, First, Initial)	EMPLID:
Verifying Officer's Signature:	Date:

**Performance Qualification Standard and Job Aid Change
Recommendation Form**

From: _____ Date: _____

PQS/Job Aid Title:

Section(s) Affected:

Remark(s)/Comment(s):

Reference(s):

Signature: _____

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