United States Coast Guard

FOREIGN TANK VESSEL EXAMINATION BOOK

Name of Vessel	**Flag**	
IMO Number	**Activity Number**	
Date Completed	**Priority** **Safety - PI PII NPV** **Security - ISPSI ISPSII ISPS III** **Random ISPS/MTSA/PSC**	**Points**
Certificate of Compliance ☐ Issued ☐ Endorsed		
Location		
Keel Laid Date		
Port State Control Officers **1.** _____ **3.** _____ **2.** _____ **4.** _____		
Vessel Description: **Crude Carrier** **Product Carrier** **Combination** **Other**		

Revision Date: 03 October 2007

Use of Foreign Tank Vessel Examination Book

This examination book is intended to be used as a job aid by Coast Guard Port State Control Officers (PSCOs) during Certificate of Compliance examinations of foreign-flagged tank (oil) vessels and Cargo Monitors. **If the vessel's cargo is regulated under MARPOL Annex II / IBC code, use the Chemical Tank Vessel job aid.** This book contains an extensive list of possible examination items. It is not, however, the Coast Guard's intention to "examine" all items listed. As a port state responsibility, PSCOs must verify that the vessels and their crews are in substantial compliance with international conventions and applicable U.S. laws. The depth and scope of the examination must be determined by the PSCOs based on their observations.

At a minimum PSCOs shall examine and or witness operational tests of the following areas / systems:

- Examine documentation
- Conduct navigation safety check
- Evaluate vessel's Safety Management System
- Evaluate vessel's security system
- Conduct deck walk & evaluate vessel's structure
- Conduct steering gear tests
- Witness test of oily water separator and bilge monitor
- Witness test of fire detection system
- Witness test of main and emergency fire pump
- Witness test of emergency lighting
- Witness fire & abandon ship drills
- Evaluate ILO-147 conditions
- Evaluate compliance with Ballast Water Regulations
- Cargo systems

This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, CFRs, the Port State Control Job Aid, NVICs, or any locally produced cite guides for specific regulatory references.

Note: Guidance on how to examine foreign tank vessels can be found in IMO Resolution 787 (19); MSM Volume II, Chapter D6: Procedures Applicable to Foreign Tank Vessels; and NVIC 06-03 Change 2.

Index of Tasks

Confined Space Entry Checklist

Sources for Policy

- COMDTINST M5100.47,Chapter 6, change 11
- MSM Vol. 1, Chapter 10 & Appendix A, C, G to chpt 10
- 29 CFR 1915, Part B

A Confined Space for the purpose of this checklist is:

A space that possess all of the following three distinct characteristics –

1. Is large enough and so configured that an employee can bodily enter & perform assigned work;
2. Has limited or restricted means for entry or exit; and
3. Is not designed for continuous employee occupancy

Hazards associated with confined space entry

- Oxygen deficient or enriched atmosphere
- Flammable atmosphere
- Toxic atmosphere
- Extreme temperature (hot or cold)
- Engulfment hazard (such as grain, coal, sand, gypsum, or similar material)
- Extreme noise
- Slick / wet surfaces & tripping hazards
- Falling objects
- Potential for rapidly changing atmosphere

USCG Confined Space Entry Requirement

A certified Marine Chemist **shall** conduct the initial inspection & certify all confined spaces on merchant vessels “Safe for Workers” before entry by USCG personnel.

In rare circumstances, if a Marine Chemist is not available, the OCMI may designate a USCG Competent Person to certify a confined space “Safe for Workers”

Examples (not limited to) of confined spaces onboard tank vsls:

Confined Spaces	**Hazard** [2)]
Voids/Cofferdams [1)]	P– O; S- F,T
Sealed Compartments [1)]	P– O; S- F,T
Double Bottoms/Sides/Duct Keels [1)]	P– O; S- F,T
Spaces Coated with a Preservative [1)]	P– O; S- F,T
Engine Crankcases/Scavenging Spaces [1)]	P– O; S- F,T
Large Heat Exchangers [1)]	P– O; S- F,T
Fuel/Lube Oil/Sludge Tanks [1)]	P- F,T; S- O
Water tanks [1)]	P– O; S- F,T
Large Piping Systems [1)]	P– O; S- F,T
Cargo/Slop Tanks [1)]	P– O; S- F,T
Pump Rooms [3)]	P– O; S- F,T

1) **Port State Control Officers should not attempt to enter any of the above spaces during a standard PSC examination, other than pump rooms. There may be reason to enter one or more of these spaces during the exam if there are clear grounds to do so, but only enter these spaces after ensuring they are safe for entry. Review the safe work practices contained in MSM Vol 1, chapter 10, Appendix A for entry into confined spaces other than pump rooms.**

2) Hazards – P (Primary); S (Secondary); O (Oxygen Deprivation); F – (Flammability); T – (Toxicity)

3) Follow steps on next page for entry into pump rooms.

Examples (not limited to) of non-confined spaces that may pose a hazard on tank vsls:

Non-confined spaces that may pose a risk	Possible Hazard(s)	Safe Work Practice
CO2 Storage Room	O2 deprivation due to leaking CO2	Ensure proper ventilation, wear O2 meter
Machinery Spaces	Noise, flammability, toxicity; MSDs – H2S	Hearing protection
Flammable Storage Lockers/Paint Rooms	flammability, toxicity	Ensure proper ventilation
Battery Room	Toxicity	Ensure proper ventilation
Bosn Shop	O2 deprivation	Ensure proper ventilation
Workshops	Toxicity from welding fumes, flammability, noise	Ensure proper ventilation
Provisions/Non-Flammable Storage	O2 deprivation	Ensure proper ventilation
Open Cargo Deck	flammability	Ensure use of intrinsically safe radios, flashlight, phone, etc.

The following steps shall be completed prior to, during, and after entering a pump room.

STEPS TO TAKE PRIOR TO PUMP ROOM ENTRY

- ☐ Determine the current and last three cargos carried to assess exposure risk.

- ☐ Review the Marine Chemist Certificate to verify the space was properly tested for the following:

  - ☐ Oxygen content - 19.5% to 22% (ideal is 20.8%)
  - ☐ Flammable gases/ vapors - less than 10% of LEL
  - ☐ Carbon Monoxide - less than 25 ppm
  - ☐ Hydrogen Sulfide - less than 10 ppm
  - ☐ Any toxic gases/ vapors dependent upon the nature of the space and its contents or previous contents – concentrations must be below the PEL and TLV limits.

- ☐ Verify the Marine Chemist designated the space “Safe for Workers”
- ☐ Verify that Marine Chemist signed the certificate.
- ☐ Verify the certificate was issued within the past 24 hrs and that conditions have NOT changed. – (i.e. vessel moved, cargo pumps turned on or off, extreme outside temp change, etc.)

☐ BENZENE: When high & moderate benzene level cargos are carried on board the vessel, the marine chemist certificate must contain the level in ppm of benzene present, if any. (See MSM Vol I, Chtp 10, appendix C for list of cargos containing benzene)

☐ If concentration level is above 10 ppm – entry is NOT authorized.

☐ If concentration level is greater than 5 ppm but less than 10 ppm, PSCOs MUST wear an appropriate respirator and not stay in space longer than 2 hours.

☐ If concentration level is less than 5 ppm but = to or less than 1 ppm, NO respirator required, UNLESS PSCO is in the space longer than 1.5 hrs.

☐ If vessel is carrying a low benzene level cargo and being transferred through the pump room - PSCOs must wear a respirator with organic vapor cartridge and cannot stay in space more than 2 hrs in the absence of a test for benzene.

☐ Calibrate and test the multi-gas detector required for entry. The meter should be able to detect oxygen and flammability. For sour crude cargos - for hydrogen sulfide as well.

☐ Check operation of personal oxygen monitor if carried in addition to the multi-gas meter. (An O2 meter is required for entry into all confined space types)

☐ Check condition of the required EEBA. The carriage of an EEBA by all personal entering a pump room is required.

☐ Verify operation of ventilation system & that space is properly ventilated. Ventilation must be in operation at least 15 min prior to entry, or at least 3 air changes. A good “rule of thumb" indication that the system is operating properly is a noticeable air movement entering through the door to the upper pump room. IF VENTILATION SYSTEM IS INOPERABLE, CG PERSONNEL ARE NOT AUTHORIZED TO ENTER THE PUMP ROOM.

☐ Discuss the aspects of entering the pump room with the vessel's officer. Verify the presence of a litter and hoisting arrangement prior to entry.

☐ Verify all cargo transfer equipment in the pump room is secured.

STEPS TO TAKE DURING PUMP ROOM ENTRY

☐ USCG personnel should be accompanied by a ship's officer or vessel rep.

☐ Carry the combination oxygen/flammability/toxic meter and EEBA.

☐ Carry a whistle or other device to sound an alarm in event of emergency.

☐ Check the air movement at the entry into the pump room. It should be very noticeable.

☐ Check the hoisting arrangement in the pump room. Most vessels have a block and tackle arrangement secured to an overhead beam in the area with direct access to the lowest part of the pump room.

☐ Verify the status of the ventilation system ducting at each level of the pump room. Terminate entry if the vent ducting is not intact.

IMMEDIATELY LEAVE ANY CONFINED SPACE IF:

- A personal monitor alarms;
- You feel dizzy or lightheaded;
- The forced air ventilation stops or is apparently ineffective; or
- If you sense any unexpected chemical through smell or dermal sensation that concerns you. This is a judgement call; however, you should depart any time there is a burning sensation in your lungs or you experience a shortness of breath. Any of these sensations may indicate a life threatening situation and you must react promptly to avoid injury.

Note: Climbing (other than on ladders) shall be limited to 5ft above the deck.

STEPS TO TAKE AFTER ENTRY FOR ALL CONFINED SPACES

- ☐ Immediately contact your chain of command if you left a confined space for any of the reasons noted above. Do not reenter any confined space until notification of appropriate senior personnel and direction from your supervisor is obtained.

- ☐ Report any inconsistencies in the marine chemist certificate or competent person log to your supervisor and follow-up with a letter to Commandant CG-1134 via your District (industrial hygienist).

- ☐ In the event of overexposure, personnel should be evacuated to appropriate medical facilities by the most expeditious means. Medical personnel should be provided with all known information on the suspected exposure, including concentration and duration of exposure. This should include the most probable route of exposure. Also provide the medical authority with the phone number to American Toxic Substance and Disease Registry (ATSDR).

Involved Parties & General Information

Owner's Agent
Individual
Phone Number

Charterer's Agent
Individual
Phone Number Same as Owner's Agent

Owner-listed on DOC (if applicable), or COFR
No Change

Operator
No Change

Vessel Information

Classification Society	
ISM Issuer: Same as above? Yes No. If not the same, which Recognized Organization?_____ **Note:** The period of validity for ISM documents should correspond to the following list. If they **DO NOT**, ISM documents should be further investigated. ☐ 5 years= Full term (SMS & DOC) ☐ 12 months= Interim (DOC) ☐ 6 months= Interim (SMC) ☐ 5 months= Short term (SMC)	
Last Drydocking Date	Next Drydocking Date
Does vessel meet double-hull requirements? Yes No If not, vessel must meet requirements By_____ (date) IAW 33 CFR 157	
Location of Last Drydocking	
Date of Last Class Survey	
Last Port of Call	Next Port of Call
Current Operations	
Call Sign	No Change
Gross Tons	No Change
Built Date (use delivery date)	No Change
Overall Length (in feet)	No Change
Cargos Carried:	Quantities (m^3):

IMO Applicability Dates

References	Dates
SOLAS 1960	26 MAY 65
SOLAS 1974 (Abrogated SOLAS 1960)	25 MAY 80
SOLAS 1981 Amendments (II-1, II-2)	01 SEP 84
SOLAS 1997 Consolidated (II-2, III)	01 JUL 86
SOLAS 2001 Consolidated (II-2)	01 JUL 98
SOLAS 2004 Consolidated (II-1)	01 JUL 86
(II-2)	01 JUL 02
(III)	01 JUL 98
Keel Laid Date $\geq$ 1 July 2002 - ☐ 2004 Consolidated Only	
Keel Laid Date $\geq$ 1 July 1998 - ☐ 2004 (I, II-1 & III-XI)/2001 (II-2)	
Keel Laid Date $\geq$ 1 July 1986 - ☐ 2004 (I, II-1 & IV-XI)/1997 (II-2 & III)	
Keel Laid Date $\geq$ 1 Sep 1984 - ☐ 2004 (I, & VI-XI)/81 (II-1 & II-2)/74 (III)	
Keel Laid Date < 1 Sep 1984 - ☐ 2004 (I, & IV-XI)/74 (II-1, II-2, III)	
Note: This is a general application and shows what SOLAS publications you will need for specific keel laid dates.	
MARPOL 73/78 Annex I	02 OCT 83
MARPOL 73/78 Annex II	06 APR 87
MARPOL 73/78 Annex III	01 JUL 92
MARPOL 73/78 Annex V	31 DEC 88
IBC Code	After 01 JUL 86
BCH Code	Prior JUL 86
COLREGS 1972	
Various additional amendments to COLREGS	
Load Line 1966	21 JUL 68
STCW 1978	28 APR 84
1991 Amendments	01 DEC 92
1994 Amendments	01 JAN 96
1995 Amendments	01 FEB 97

SOLAS Applicability		
YEAR BUILT	SOLAS APPLICABILITY	NOTES
≤ 1960	SOLAS 04 Consolidated Effective 1 Jul 04	Vessels certified prior to 25 May 65 under SOLAS 14/29/48 are not recognized by the U.S. Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1961-1964	SOLAS 04 Consolidated Effective 1 Jul 04	Vessels certified prior to 25 May 65 under SOLAS 14/29/48 are not recognized by the U.S. Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1965	SOLAS 1960 Effective 25 May 65 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 24 May 65 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1966-1979	SOLAS 1960 Effective 25 May 65 SOLAS 04 Consolidated Effective 1 Jul 04	Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1980	SOLAS 1960 Effective 25 May 65 SOLAS 74 (unamended) Effective 25 May 80 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 24 May 80 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1981-1983	SOLAS 74 (unamended) Effective 25 May 80 SOLAS 04 Consolidated Effective 1 Jul 04	Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1984	SOLAS 74 (unamended) Effective 25 May 80 SOLAS 74 (81 amended) Effective 1 Sep 84 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 31 Aug 84 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1985	SOLAS 74 (unamended) Effective 25 May 80 SOLAS 74 (81 amended) Effective 1 Sep 84 SOLAS 04 Consolidated Effective 1 Jul 04	Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)

SOLAS Applicability		
YEAR BUILT	SOLAS APPLICABILITY	NOTES
1986	SOLAS 74 (81 amended) Effective 1 Sep 84 SOLAS 74 (83 amended) Effective 1 Jul 86 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 30 Jun 86 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1987-1996	SOLAS 74 (83 amended) Effective 1 Jul 86 SOLAS 04 Consolidated Effective 1 Jul 04	Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1997	SOLAS 74 (83 amended) Effective 1 Jul 86 SOLAS 97 Consolidated Effective 1 Jul 97 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 30 Jun 97 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1998	SOLAS 97 Consolidated Effective 1 Jul 97 SOLAS 96 (amendments) Lifesaving Equipment Effective 1 Jul 98 LSA Code Effective 1 Jul 98 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 30 Jun 98 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
1999-2000	SOLAS 96 (amendments) Lifesaving Equipment Effective 1 Jul 98 LSA Code Effective 1 Jul 98 SOLAS 04 Consolidated Effective 1 Jul 04	Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
2001	SOLAS 96 (amendments) Lifesaving Equipment Effective 1 Jul 98 LSA Code Effective 1 Jul 98 SOLAS 01 Consolidated Effective 1 Jan 01 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 31 Dec 00 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
2002	SOLAS 96 (amendments) Lifesaving Equipment Effective 1 Jul 98 SOLAS 01 Consolidated Effective 1 Jan 01 FSS Code Effective 1 Jul 02 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 30 Jun 02 Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
2003	SOLAS 96 (amendments) Lifesaving Equipment Effective 1 Jul 98 FSS Code Effective 1 Jul 02 SOLAS 04 Consolidated Effective 1 Jul 04	Vessel is also required to meet "all ships cites" and "operational requirements" in SOLAS 04 (I, IV-IX, and XI)
2004	SOLAS 96 (amendments) Lifesaving Equipment Effective 1 Jul 98 FSS Code Effective 1 Jul 02 SOLAS 04 Consolidated Effective 1 Jul 04	Applies if keel laid after 30 Jun 04
2005-2006	FSS Code Effective 1 Jul 02 SOLAS 04 Consolidated Effective 1 Jul 04	

Task 1.0 Examine Facility Security Interface

Step		Action	Ref
1.1	☐	Observe physical measures (fences, barriers, etc.) to prevent unauthorized access to vessel and facility.	33 CFR 105.255 (a) (3)
1.2	☐	Observe access to facility is monitored.	33 CFR 105 (b) (1)
1.3	☐	Observe gate guard. • Checked IDs • Inquires for valid reason to access facility	33 CFR 105.257.(a) (1), (2) or (3) HLS policy
1.4	☐	Verify signs are conspicuously posted that describe security measures in effect (i.e., MARSEC Level, search procedures).	33 CFR 105.255 (e) (2)
1.5	☐	Observe supervision of cargo and ship stores. • Facility Supervision	33 CFR 105.265 & 270
		• Vessel Supervision	ISPS Part A 7.2.6

Task 2.0 Examine Visible Areas of Hull

Step		Action	Ref
2.1	☐	Examine anchor. • Anchor(s) present • Condition of visible anchor chain	Class Society Rules
2.2	☐	Examine area surrounding vessel and vessel's hull for traces of pollution.	33 USC1321
2.3	☐	Examine hull markings. • Draft Marks • Load lines Placement of line Contrasting Color • IMO Number Visible • Vessel name on stern	ICLL1966 Annex I/4-9 ICLL Annex I/5 ICLL Annex I/8 SOLAS XI-1/3
2.4	☐	Examine hull integrity. • Absence of fractures, corrosion, wastage, pitting or damage to the extent that it may impair vessels seaworthiness • No improper repairs or unapproved appendages • Verify for hoses, piping, or any other devices that could be used for illegal overboard discharges	ICCL 1966 ANNEX I/1
2.5	☐	Examine vulnerability of areas of hull that could be used for unlawful entry/access to vessel.	ISPS Code Part A 7.2.2 33 CFR 104.265 (b) (1)

Task 2.0 Examine Visible Areas of Hull

Step		Action	Ref
2.6	☐	Examine access ladders, gangways, ramps, doors, side scuttles, windows, ports, mooring lines, pierside bollards/cleats, anchor chains, cranes, and hoisting gear.	ICCL 1966 ANNEX I/15
2.7	☐	Examine hull fouling and BWM plan implementation. • Organisms and sediment removed from anchors, anchor chains, and hawspipes • Clean hull at waterline (no algae, barnacles, etc.)	33 CFR 151.2035

Task 3.0 Examine Security Procedures at Vessel Access Points

Step		Action	Ref
3.1	☐	Verify proper gangway watch and ensure all access points to vessel are monitored: • Shipboard personnel attentive to security matters and active in efforts to enforce and enhance security of ship • Knowledgeable about vessel security • Measures are in place to prevent weapons, dangerous substances and devices intended for use against people, ship, or ports are prevented from going onboard • Control embarkation of people and effects	ISPS Code Part A 7.2.2 & 7.2.5 33 CFR 104.265 (b) (1)
3.2	☐	Ensure gangway watch asks for IDs and logs examiner's name in the visitor log. • Review visitor log if available • Measures in place to identify visitors while onboard • Accountability of personnel onboard ship	ISPS Code Part A 7.2.2 33 CFR 104.265 (e) (3)
3.3	☐	Ensure that security communications are readily available.	ISPS Code Part A 7.2.7 33 CFR 104.245 (b) and (c)

Task 4.0 Conduct Meeting with Vessel Master or Designated Representative

Step	Action	Ref
4.1	☐ Announce purpose of visit. • Type of examination • Confirm last CG exam	MSM VOL II Ch. D NVIC 06-03 Change 2
4.2	☐ Communicate scope of exam. • Documents • Lifesaving Appliances • Firefighting Appliances • Pollution Prevention • Structural Integrity • Machinery tests • General Health and Safety Check • Cargo equipment / arrangements • Security • Drills	MSM VOL II Chapter D NVIC 06-03 Change 2
4.3	☐ Determine if any exigent circumstances in regards to: • Cargo operations • Class Surveys • Drydocking • Bunkering • ISM nonconformities • Repairs	MSM VOL II Ch. D NVIC 06-03 Change 2
4.4	☐ Determine if there are any outstanding conditions of class or nonconformities. Notes:_____ _____ _____ _____ _____ _____	
4.5	☐ Determine schedule of events.	MSM VOL II Ch. D NVIC 06-03 Change 2

Task 4.0 Conduct Meeting with Vessel Master or Designated Representative

Step	Action	Ref
4.6	☐ Examine the following records during the SSO interview: • Declaration Of Security history • Drills and exercises • Security incidents and security breaches • Changes to ship security levels • Security communication • Formal training completion certificate for SSO • Security equipment calibration • Verify records are protected against unauthorized access.	ISPS Code Part A 10 NVIC 06-03 Change 2
4.7	☐ Spot-check the Ship Security Officer by asking a sampling of the following questions: • How often is the security equipment calibrated? • How do you coordinate security activities with the port facility? • When would you limit shore to ship access to only one access point? • How often do you audit security activities? • How do you audit a security activity? • Who is the Company Security Officer? • Do you have 24/7 contact information for this person? Ask to see information. • How often do you hold security drills, training, or exercises? • When was the last time you conducted a security drill, training session, or exercise? • How do you report security breaches or incidents?	NVIC 06-03 Change 2

(Sub-steps of 4.7 continued on next page)

Task 4.0 Conduct Meeting with Vessel Master or Designated Representative

Step	Action	Ref
4.7 (cont)	• What do you do if someone tries to bring an unauthorized weapon on board the vessel? Dangerous substance? Dangerous device? • How do you prevent unauthorized persons from coming on board? • Who on board is assigned security duties? • When was the last time the SSP was reviewed? Was it updated? Ask to see record of update, but NOT the plan. • What do you do to search persons and their belongings when they come on board? • What are your procedures to search unaccompanied baggage? How do these become more rigorous if security level increases? • How do you monitor the security of the ship when underway? When pierside? At anchor? • Do you have procedures in place to bring on board additional security personnel? Describe. • Do you have procedures in place to ensure security for cargo handling? Describe. • How do you safeguard the Ship Security Plan?	NVIC 06-03 Change 2

Task 4.0 Conduct Meeting with Vessel Master or Designated Representative

Step		Action	Ref
4.8	☐	Spot-check a crewmember with security responsibilities using a sampling of the following questions: • Who is the Ship Security Officer? • When was the last time you participated in a security drill, training session, or exercise? • How do you report security breaches or incidents? • What do you do if someone tries to bring an unauthorized weapon on board the vessel? Dangerous substance? Device? • How do you prevent unauthorized persons from coming on board? • What do you do to search persons and their belongings when they come on board? • What are your procedures to search unaccompanied baggage? • How do you monitor the security of the ship when underway? When pierside? At anchor?	NVIC 06-03 Change 2

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step	Action	Ref
5.1	☐ Complete vessel document form below to verify vessel certificates:	SOLAS 74/78 I/12, 13, 14, 15, 16

	No Change	Issuing Flag/ Agency	Certificate ID#	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Certificate of Registry							
Class Certificate							
International Tonnage Certificate (ITC)							
ITC Missing – International Convention on Tonnage Article 7							

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

	No Change	Issuing Flag/ Agency	Certificate ID #	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Cargo Ships Safety Equipment Certificate							
Cargo Ship Safety Construction Certificate							
Cargo Ship Safety Radio Certificate							
Cargo Ship Safety Certificate*							
Certificate Missing – 74 SOLAS I/12 (all ships). Certificate Expired – 74 SOLAS I/14 (all ships). Missing Annual Endorsement – 74 SOLAS I/8, 9, or 10 (all ships) * Cargo Ship Safety Cert combines safety equipment, construction and radio certificates IAW SOLAS I/12 (v) (all ships)							

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

	No Change	Issuing Flag/ Agency	Certificate ID #	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Document of Compliance (DOC) (ISM)							
Safety Management Certificate (SMC)							
Safe Manning Certificate (compare to crew list!)							

DOC Missing – SOLAS IX/4.1 (all ships). DOC Expired or DOC not applicable to Vessel – ISM Code 13.3.
DOC Missing Endorsement – ISM Code 13.4
SMC Missing – SOLAS IX/4.3 (all ships). SMC Expired – ISM Code 13.4.
SMC Missing Endorsement – ISM Code 13.8
Safe Manning Cert. Missing – SOLAS V/14 (all ships).
Vessel not operating in compliance with manning cert – STCW 95 I/14 – 1.2

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

	No Change	Issuing Flag/ Agency	Certificate ID #	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Load Line Certificate							
Load Line Exemptions							
SOPEP							

Load Line Cert Missing – ICLL 66 Article 3.
Load Line Cert Expired – ICLL 66 Article 19.
Load Line Missing Endorsement – ICLL 66 Article 14

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

	No Change	Issuing Flag/ Agency	Certificate ID #	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Vessel Response Plan							
COFR* 33 CFR 138.65							
International Oil Pollution Prevention Certificate							
IOPP Form B							
Oil Record Book (Part I)							
OWS Throughput IAW IOPP = Built to MEPC. 07 (49) or MEPC.60 (33) (circle one)							
IOPP Certificate Missing – MARPOL 73/78 Annex I/ 5.1. IOPP Certificate Expired – MARPOL 73/78 Annex I/ 8.1. IOPP Missing Annual Endorsement – MARPOL 73/78 Annex I/ 4.1 * Valid COFR required within U.S. waters. Call COFR desk at 202-493-6780 for details							

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

	No Change	Issuing Flag/ Agency	Certificate ID #	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Oil Record Book (Part II)							
International Ship Security Certificate (ISSC)							
Continuous Synopsis Record (CSR)							
ISSC Missing – ISPS Part A 19.2. ISSC Expired – ISPS Part A 19.3. ISSC Missing Annual Endorsement – ISPS Part A 19.3 CSR Missing – 74 SOLAS XI-1/5							

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

	No Change	Issuing Flag/ Agency	Certificate ID #	Port Issued	Issue Date	Expiration Date	Last Annual Endorsement
Foam Analysis Reports (If present)							
Fixed Fire Fighting Certificates							
Life Saving Certificates							

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step		Action	Ref
5.2	☐	Examine Garbage Management Plan for the following: • Management plan in language of crew • Designated person responsible for carrying out plan	MARPOL 73/78 Annex V/9 (2) 33 CFR 151.57
5.3	☐	Examine Garbage Record Book for the following: • In English, French, or Spanish • Each page signed by Master • Maintained for 2 years • Last entry for incineration or discharge including date and time, type of garbage, and estimated amount of incineration/discharge	MARPOL 73/78 Annex V/9 (3) 33 CFR 151.55
5.4	☐	Review Oil Record Book (Part I and II) for the following: <u>Part I</u> – Spot check for the following entries: • Ballasting or cleaning of oil fuel tanks • Discharge of dirty ballast or cleaning water from oil tanks • Collection & disposal of oil residues • Discharge overboard or disposal otherwise of bilge water • Bunkering of fuel or bulk lub oil • Master's signature for each operation and page • Officer-in-charge of the listed operation required for each entry • Maintained for 3 years • Recorded OWS run time and discharge quantities (cubic meters) match the capability of the OWS as listed in OWS manufacturer's manual and/or listed on the IOPP Certificate • Check entries for wrong codes, dates that are not in order, and missing pages • Look for repetitive entries which may indicate falsification of ORB activities	MARPOL 73/78 (cons 2006) Annex I/17 MARPOL 73/78 (cons 2006) Annex I/36 33 CFR 151.25

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step	Action	Ref
5.4 (cont)	• Look for waste oil, sludge, bilge, and other tank levels noted from inspection that vary significantly from last entries • ORB must indicate how the ship disposed of this liquid • Look for recorded quantities of oily bilge water pumped to holding tanks or processed by OWS directly from bilge wells that do not compare with observed conditions within machinery space <u>Part II</u> - Spot check for the following entries: • Loading of oil cargo • Internal transfer of oil cargo during voyage • Unloading of oil cargo • Ballasting of cargo tanks and dedicated clean ballast tanks • Cleaning of cargo tanks including crude oil washing • Discharge of ballast except segregated ballast tanks • Discharge of water from slop tanks • Closing of valves necessary for isolation of dedicated clean ballast tanks from cargo & stripping lines after slop tank discharge ops. • Disposal of residue • Failure of oil discharge monitoring and control system • Master's signature for each operation and page • Officer-in-charge of the listed operation required for each entry • Maintained for 3 years	

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step		Action	Ref
5.5	☐	Review the Shipboard Oil Pollution Emergency Plan (SOPEP) for the following: • Approval from flag state or classification society • Written in English and working language of crew • Procedures for reporting oil pollution incidents • List of authorities or persons to be contacted in the event of an oil pollution incident • Action to be taken immediately by persons on board to reduce or control discharge of oil following an incident • Procedures and POC on the ship for coordinating shipboard action with national and local authorities in combating pollution	MARPOL 73/78 (cons 2006) Annex I/37 33 CFR 151.26
5.6	☐	Review Vessel Response Plan (VRP) for the following: • Verify USCG approval letter • Verify accuracy of local response contacts	33 CFR 155.1015
5.7	☐	Verify the Dedicated Clean Ballast Tank Operations Manual is onboard. • Approved by USCG or Administration as per 33CFR157.216.	33CFR157.216 MARPOL 73/78 (cons 2006) Annex I/18.8.4
5.8	☐	Verify the Cargo and Ballast System Manual is onboard. • Describes the automatic & manual operation of the cargo & ballast system.	33CFR157.23
5.9	☐	Verify the Crude Oil Washing Operations and Equipment Manual is onboard. • Approved by USCG or Administration as per 33CFR157.118. • Waiver • Evidence of required inspections	33CFR157.118 MARPOL 73/78 (cons 2006) Annex I/33, 35
5.10	☐	Verify the Inert Gas System Manual is onboard.	FSS Code, Chp 15, 2.4.4

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step		Action	Ref
5.11	☐	Verify manning. • In accordance with safe manning document • Crew list matches Notice of Arrival (NOA) • Crewmembers are at least minimum age (15 years)	SOLAS 74/78 V/14 STCW 95 I/14-1.2
5.12	☐	Verify Licenses and Endorsements are original and current. (Look for fraudulent document indicators.) • Navigating Officer • Master • Engineering Officer	STCW 95 II/1 & 2 STCW 95 II/1 STCW 95 II/2 STCW 95 III/1
5.13	☐	Determine if license corresponds to Flag State.	
5.14	☐	Compare licenses and endorsements to crew list and safe manning document.	STCW 95
5.15	☐	Verify endorsements • Navigation watch officer STCW certificates have endorsement for radar and GMDSS. • Officer's licenses endorsed for tank vessel training	STCW 95 II & IV 33 CFR 96 SOLAS IX STCW 95 V/1
5.16	☐	Ensure crew has complied with Rest Period Requirements.	STCW 95 VIII/1

If . . .	Then . . .
Yes	No action necessary
No	Verify original and current flag state endorsements present

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step		Action	Ref
5.17	☐	Verify medical certificates indicate crewmembers are medically fit for duty.	SOLAS IX 33 CFR 96 COMDTINST 16722.11A
5.18	☐	Verify that crewmembers who have designated safety or pollution prevention duties in the operation of the ship have received appropriate elements of basic safety training: • personal survival tech • fire prevention/basic firefighting • elementary first aid • personal safety & social responsibilities	STCW 95 VI/1, A-VI/1
5.19	☐	Verify ballast water exchange is completed. • Applicable to vessels that have entered U.S. water after operating beyond the EEZ.	33 CFR 151.2035 NVIC 07-04 Ch. 1
5.20	☐	Examine ballast water management plan. • Vessel specific • Allows those responsible for the plan's implementation to understand and follow the BWM strategy for the vessel • Crew trained on the application of the BWM and sediment management procedures	NVIC 07-04 Ch. 1

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step	Action	Ref
5.21	☐ Examine BWM Records. • Retained onboard for 2 years • Records for all voyages to U.S. ports or places where the vessel anchored or moored	33 CFR 151.2045
5.22	☐ Examine BWM Report. • Review report for content and accuracy • Consistent with report submitted to National Ballast Information Clearinghouse (NBIC)	
5.23	☐ Review Safety Management System (SMS) for the following: • SMS Documentation Onboard • SMS information available to crew in working language of ship	SOLAS IX ISM Code 33 CFR 96

5.24	☐ Spot Check SMS for the following:
	• SMS includes safety & environmental policy
	• SMS includes instructions/procedures for meeting international and flag State requirements
	• SMS addresses responsibilities, authority and effective communications onboard & with shore management.
	• SMS identifies designated person
	• Crew familiar with SMS & Master familiar with SMS responsibilities
	  ◦ Evidence that ship provides SMS familiarization for new crew
	• SMS includes procedures for reporting accidents and non-conformities
	  ◦ Evidence ship reports non conformities as required by SMS
	• SMS addresses preparations & response to emergency situations
	  ◦ Evidence that ship conducts emergency drills/exercises
		SOLAS IX
		ISM Code
		33 CFR 96

Task 5.0 Examine Documentation, Manuals, Certificates, and Licenses

Step	Action	Ref

5.24 (cont)	• SMS includes maintenance program & procedures
	  • Evidence that ship maintains & tests vital equipment & records results iaw SMS
	  • Equipment condition indicates effective maintenance system
	• SMS provides procedures for internal audits and management review
	  • Evidence that audits/ management reviews are performed	

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.1	☐	Examine material condition of the following parts of anchor and windlass (spot-check): • Foundations • Drive units • Guards • Covers for moving parts • Brake pads (look for wear) • Deck fittings • Electrical (wiring) or hydraulic piping	Refer to Class Rules
6.2	☐	Examine material condition of the following parts of mooring winches/capstans: • Foundations • Cables/hooks • Boom • Brake • Electrical (wiring) or hydraulic piping	Refer to Class Rules
6.3	☐	Verify material condition of mooring lines.	PWSA 33 CFR 160.111
6.4	☐	Examine vulnerability of deck area that can be used for unlawful access/entry to vessel.	ISPS PART A 7.2.2 33 CFR 104.265
6.5	☐	Examine integrity of rails and bulwarks. • Rails and bulwarks 39.5 in (1m)	ICLL Annex I/25

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.6	☐	Examine structural integrity of the hull, and assess severity of any of the following to the extent that it may impair ship's seaworthiness (request class report if necessary): • Fractures • Corrosion • Excessive wastage • Pitting • Excessive doublers • Postage stamp inserts • Cement boxes • Soft patches • Welding burn marks or other evidence of recent repair work • Frame pulling away • Fractures in corners (ref IMO circ/bulkers) • Holes in main decks • Leaks/patching on ballast tanks • Bulkheads/decks warped	ICLL 66 Annex I/1
6.7	☐	Examine material condition of the following hatch cover parts: • Covers • Frames pulling away • Gaskets/compression bar • Combing • Hydraulics systems • Wastage/coatings	ICLL 66 Annex 1/13-16

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.8	☐ Examine watertight/weathertight openings. • Watertight doors, gaskets, dogs • Other openings (means of securing) • Vents, air pipes, and closing appliances	ICLL 66 Annex 1/12-20
6.9	☐ Verify duplicate Fire Control Plans are permanently stored in prominently marked weathertight enclosures outside the deckhouse. Permanently stored **Note 1:** For vessels built prior to 01JUL02: 74/78 SOLAS (all ships) II-2/20.2 **Note 2:** For vessels built after 01JUL02: 74/78 SOLAS 2004 Cons Ed; II-2/15.2.4.2	See notes regarding build date
6.10	☐ Examine pilot ladder: • In good condition and secure • Material condition of deck padeyes • Pilot ladder appears to be of sufficient length	SOLAS 74/78 2004 Cons Ed. V/23.2 (all ships)

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.11	☐ Inspect lifeboats/rescue boat. • Required number/type • Hull integrity • Engine operation • Rudder operations • Propulsion for forward/aft operation. (Can be conducted while boat is in cradle.) • Equipment (random) • Material condition of releasing gear • Release gear is common to all boats • Proper lifeboat markings • Water spray fire-protection system	74 SOLAS III/20.2 (2004 Cons Ed) (all ships) Operational Condition LSA Code 4.9

Number of Lifeboats Required

Note 1: For vessels constructed on or after 01JUL98:
74 SOLAS III/31 (2004 & 2001 Cons Ed)

Note 2: For vessels constructed 01JUL86 - 30JUN98:
74 SOLAS III/26 (1997 Cons Ed)

Note 3: For vessels constructed 25MAY80 - 30JUN86:
74 SOLAS (unamended) III/35
74 SOLAS (unamended) 8(b) requires minimum of one motor lifeboat

Note 4: For vessels constructed 26MAY65 - 24MAY80:
60 SOLAS III/35 60 SOLAS 8(b) requires minimum of one motor lifeboat

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.12	☐ Examine davit systems. • Structure and foundation • Roller tracks • Lubrication (evidence of use) • Falls; end for end/renew (2.5/5 years) • No obstructions to lowering • Limit switches are present • Manropes	SOLAS 74/78 III/20.2 (2004 Cons Ed) (all ships) Operational Condition SOLAS 74/78 III/20.4 (2004 Cons Ed) (all ships)
6.13	☐ Examine embarkation area: • No obstructions • Launching instructions are easily seen under emergency lighting conditions • Embarkation emergency lighting • Embarkation ladder is in good condition and securely mounted (deck padeyes)	SOLAS 74/78 III/11 (2004 Cons Ed) (all ships)

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.14	☐ Examine life rafts. • Required number • Float free arrangement (hydrostatic release/weak link) • Annual servicing (hydrostatic release and inflatable life raft. 17 months, if Administration approved) • Bow/stern station (>100 M); lashed down on deck or in marked location • Launching instructions are easily seen under emergency lighting conditions • Proper life raft container markings Required Number **Note 1:** For vessels constructed on or after 01JUL98: 74 SOLAS III/31.1.1.2 (or 31.1.2.2 for vessels with free-fall lifeboats) (2004 & 2001 Cons Ed) **Note 2:** For vessels constructed 01JUL86 - 30JUN98: 74 SOLAS III/26.1.1.2 (or 26.1.2.2 for vessels with free-fall lifeboats) (1997 Cons Ed) **Note 3:** For vessels constructed 26MAY65 - 30JUN86: 74 SOLAS III/31.3.1 (2004 Cons Ed)	SOLAS 74/78 III/20.2 (2004 Cons Ed) (all ships) Operational Condition

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.15	☐ Examine lifebuoys. • Condition (reflective tape/delamination/grab lines). • Proper number as per safety equipment certificate • 50% with waterlights • Vessel name and port clearly marked in block letters Required Number **Note 1:** For vessels constructed on or after 01JUL98: 74 SOLAS III/32.1.1 (2004 & 2001 Cons Ed) **Note 2:** For vessels constructed 01JUL86 - 30JUN98: 74 SOLAS III/27.1.1 (1997 Cons Ed) **Note 3:** For vessels constructed 25MAY80 - 30JUN86: 74 SOLAS (unamended) III/37 **Note 4:** For vessels constructed 26MAY65 - 24MAY80: 60 SOLAS III/37	SOLAS 74/78 III/20.2 (2004 Cons Ed) (all ships) Operational Condition

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.16	☐ Examine life jackets—watchstanders and crew (random check) for: • Condition • Stowage • Retro-reflective material • Light • Whistles Number of life jackets/readily available **Note 1:** For vessels constructed on or after 01JUL98: 74 SOLAS III/7.2.1 (2004 & 2001 Cons Ed) **Note 2:** For vessels constructed 01JUL86 - 30JUN98: 74 SOLAS III/7.2 (1997 Cons Ed) **Note 3:** For vessels constructed 25MAY80 - 30JUN86: 74 SOLAS (unamended) III/22 **Note 4:** For vessels constructed 26MAY65 - 24MAY80: 60 SOLAS III/22	SOLAS 74/78 III/20.2 (2004 Cons Ed) (all ships) Operational Condition

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.17	☐ Verify (random check) the following for fire hose stations: • Condition of hose and nozzle • Spanner wrench present if necessary • Location is consistent to fire control plan • Valve operation Operating condition/ready for immediate use **Note 1:** For vessels built prior to 01JUL02: 74/78 SOLAS (all ships) II-2/21 (2001 Cons Ed) **Note 2:** For vessels built after 01JUL02: 74/78 SOLAS 2004 Cons Ed; II-2/14.1	SOLAS 74/78
6.18	☐ Verify presence of international shore connection and accessories (bolts, washers, and gaskets). **Note 1:** For vessels built prior to 01JUL02: 74 SOLAS (unamended) II-2/81 74/78 SOLAS (81 amend) II-2/19 2001 Cons Ed **Note 2:** For vessels built after 01JUL02: 74 SOLAS II-2/14 2004 Cons Ed FSS Code Chap 2	SOLAS 74/78
6.19	☐ Firemen's outfits (spot-check) • Two lockers • Two outfits • Protective clothing • Helmet, boots, and gloves • Lamp • Axe • Breathing apparatus and lifeline **Note 1:** For vessels built prior to 01JUL02: 74 SOLAS (unamended) II-2/14 74/78 SOLAS (81 amend) II-2/17 2001 Cons Ed **Note 2:** For vessels built after 01JUL02: 74 SOLAS II-2/10.10 Cons Ed FSS Code Ch 3.2.1	SOLAS 74/78 46 CFR 35.30-20

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.20	☐ Examine (random check) fire extinguishers for: • Condition • Location consistent to fire control plan • Material condition of mounting bracket • Inspection date consistent to manufacturers instructions Operating condition/ready for immediate use **Note 1:** For vessels built prior to 01JUL02 use: 74 SOLAS (all ships); II-2/21 **Note 2:** For vessels built after 01JUL02 use: 74/78 SOLAS 2004 Cons Ed; II-2/14.1	SOLAS 74/78
6.21	☐ Examine Fixed Firefighting systems (CO_2, HALON, FOAM, and "HIGH FOG"). • Current servicing (annual and hydrostatic) • Material condition • Presence of system instructions posted • Systems instructions/placards are easily understood by crew • Knowledge of crew in system operations Operating condition/ready for immediate use **Note 1:** For vessels built prior to 01JUL02: 74/78 SOLAS (all ships) II-2/21 (2001 Cons Ed), **Note 2:** For vessels built after 01JUL02: 74/78 SOLAS 2004 Cons Ed; II-2/14.1	SOLAS 74/78

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.22	☐ Determine type of system.	SOLAS 74/78

If System is . .	Then . . .
High Pressure CO_2	☐ Ensure cylinder storage space is properly ventilated. ☐ Verify cylinders are stored off the deck. ☐ Examine condition of flex hoses. ☐ Verify cylinder storage space door opens outwardly.
Low Pressure CO_2	☐ Verify cylinder storage space is properly ventilated. ☐ Verify adequate tank volume. ☐ Ensure refrigeration system is operational. ☐ Verify insulation intact. ☐ Verify cylinder storage space door opens outward.
Foam	☐ Verify analysis tests have been conducted according to Administration standards. ☐ (Vessels built after 1 Jul 2002) - Verify cylinder storage space door opens outwardly.

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.23	☐ Examine Paint/Flammable liquid locker. • Protected by an appropriate fire extinguishing arrangement • Electrical installations are explosion proof • Proper ventilation is present • Contents of locker are properly stored **Note 1:** For vessels built prior to 01JUL02: 74/78 SOLAS (all ships) II-2/18.7 (2001 Cons Ed) **Note 2:** For vessels built after 01JUL02: 74/78 SOLAS 2004 Cons Ed; II-2/10.6.3	
6.24	☐ Examine Pollution Prevention Equipment and Arrangements: • Verify containment around vents and manifolds are free of debris, standing water, or product • Verify containment is structurally sound • Verify containment is adequate capacity • Verify drain plug is secured by mechanical means **Note:** One-half barrel 300-1600 gross tons, 1 barrel over 1600 gross tons, 5 U.S. gallon portable container for 100-300 gross tons and 100 gross tons or over if constructed before July 1974.	33 CFR 155.320
6.25	☐ Examine standard discharge connection. • Meets IMO/CFR sizing standards (i.e., 6 bolts) • Evidence of use is consistent with Oil Record Book	MARPOL 73/78 Annex I/19 33 CFR 155.430
6.26	☐ Verify (random check) that equipment in SOPEP. Locker is consistent with SOPEP.	MARPOL 73/78 Annex I/26.1 33 CFR 151.26

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.27	☐	Examine Security (General MARSEC Level 1). • Access areas are locked or otherwise secured • Securing of restricted areas does not compromise safety • Measures are in place to prevent unauthorized access to vessel	NVIC 06-03 CH 2
6.28	☐	Examine how garbage is disposed of. • Garbage is separated by type (plastic, food, paper, other, etc.) in accordance with plan • Garbage placard posted	MARPOL 73/78 Annex V/3 (1)
6.29	☐	Examine material condition of railing (wasted, broken stanchions/courses).	ICLL 66 Annex 1/25
6.30	☐	Examine material condition of ladders (wasted, broken rungs).	ICLL 66 Annex 1/25
6.31	☐	Examine cargo/ballast tank vents. • Operation of closing device (random check) • Material condition sound	ICLL 66 Annex 1/20

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.32	☐	Observe for exposed/damaged electrical wiring/fixtures. • For hazardous locations - ensure they are designed to minimize risk of fire/ explosion and not damaged.	SOLAS 74/78 (all ships) II-1/45
6.33	☐	Examine ramps/watertight doors for: • Watertight integrity • Seals • Locking arrangements • Controls/warning alarms	ICLL 66 Reg 21
6.34	☐	Examine flammable and combustible gas/liquid stores stowage. • Adequate/appropriate	
6.35	☐	Verify compliance with the safe access to bow SOLAS requirement.	SOLAS (2004 cons) II-1, 3-3

6.36	☐	Examine emergency towing arrangements.
		• For vessels greater than or equal to 20,000 DWT.
		• Towing arrangements fitted at both ends of vessel.
		• Design approved by Administration.
		• For tankers constructed on/ after 1 July 2002:
		  • Capable of rapid deployment in absence of main power;
		  • One side pre-rigged for rapid deployment
			SOLAS (2004 cons) II-1, 3-4
			
			33 CFR 155.235

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.37	☐	Examine cargo pump room.	COMDT M5100.47
		[COMPLETE CONFINED SPACE ENTRY CHECKLIST ON PAGE iii PRIOR TO ENTRY]	SOLAS (2004 cons) II-2, 4-5.4.1
		• Verify hoisting system provided from bottom of pump room to the main deck. • Verify lighting fixtures and all electrical equipment is explosion proof. • Verify no dead ended, loose or frayed cabling. • Verify no jury-rigged wiring, extension cords, etc. • Verify bulkheads are gas tight. • Verify no leaking seals. • Verify pump room protected with required fixed fire-extinguishing system. • Verify no potential sources of ignition.	SOLAS (2004 cons) II-2, 4-5.10.1
6.38	☐	Examine designated observation area. • On or above weather deck • Manifold can be visually observed • Means to directly stop discharge of effluent into sea. • Positive communications system between observation area and discharge control position.	33 CFR 157.13
6.39	☐	Examine cargo tank ventilation. • Vent outlets at proper height – 6m above cargo tank deck for free flow, 2m above cargo deck for high-velocity discharge. • Vent outlets not less than 10m horizontally fm source of ignition, air intake, and deck machinery. • Materiel condition of piping. • Flame screens	SOLAS (2004 cons) II-2, 4-5.3

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.40	☐	Verify pumping, piping and discharge arrangements in compliance with 33 CFR 157.11	33 CFR 157.11
6.41	☐	Examine Pressure Vacuum Valves (Spot Check) • Material Condition • Operational	SOLAS (2004 cons) II-2, 4-5.3.4.2, & 11-6
6.42	☐	Examine Cargo Piping / hoses. • Material Condition • Verify cargo piping hydrostatic testing completed annually.	33 CFR 156.170

6.43	☐	Verify proper warning signs / signals.
		• Red warning signal
		• Warning sign at gangway
		  • "No open lights"
		  • "No smoking"
		  • "No visitors"
			46 CFR 35.30-1

6.44	☐	Verify if any tank hatches, ullage holes, or Butterworth plates are open they have flame screens.	46 CFR 35.30-10
6.45	☐	If vessel is collecting vapors of crude oil, gasoline blends or benzene emitted from cargo tank through a Vapor Control System: • Verify vessel submitted plans or Class provided certification to MSC that VCS systems complies with the VCS regulations in 46 CFR 39. • Inert Gas Manual amended • Oil transfer procedures amended	46 CFR 39.10-13 33 CFR 155.750(a)

Task 6.0 Conduct Deck Walk

Step	Action	Ref
6.46	☐ Examine VCS piping. • Drain lines • Electrically bonded to hull • Flange stud • Vapor connection painted red / yellow / red and labeled vapor in 2-inch black letters • Isolation valve at vapor connection - has indicator to show whether closed or open unless readily obvious otherwise. • Isolated from IGS	46 CFR 39.20-1
6.47	☐ Examine hoses connected to VCS. • Vapor connection hoses painted red / yellow / red and labeled vapor in 2-inch black letters	46 CFR 39.20-1
6.48	☐ If equipped with VCS, verify vessel has closed gauging system.	46 CFR 39.20-3

6.49	☐ Verify proper operation of liquid overfill protection. (spot check)
	• Witness operation of high-level and tank overfill alarms (spot check)
	  • High level - 95%
	  • Audible & visible alarm where cargo transfer is controlled.
	  • Overfill - above 95%
	  • Audible & visible alarm where cargo transfer is controlled & cargo deck area
	• If Spill valve installed – meets 46 CFR 39.20-9(c)
	• If Rupture disk installed – meets 46 CFR 39.20-9(d)
	• Intrinsically safe
		46 CFR 39.20-7

Task 6.0 Conduct Deck Walk

Step		Action	Ref
6.50	☐	Verify pressure sensing device located in main vapor collection line. • Pressure indicator located at the cargo control station. • High pressure alarm – audible / visual where cargo transfer is controlled – alarms at not more than 90% of the lowest P/V setting.	46 CFR 39.20-13

Note: During the course of the machinery examination, it is imperative for the PSCO to maintain situational awareness at all times. Ensure that the machinery spaces are protected in regards to fire, protective systems, and general safety.

Task 7.0 Conduct Machinery Examination

Step		Action	Ref
7.1	☐	Examine current pollution prevention records. • Documentation of person in charge • Equipment tests and inspections • Declaration of inspection	33 CFR 155.700 33 CFR 156.170 33 CFR 156.150
7.2	☐	Examine oil transfer procedures for the following: • Posted/available in crew's language • List of products carried by vessel • Description of transfer system including a line • Diagram of piping • Number of persons required on duty • Duties by title of each person • Means of communication • Procedures to top off tanks • Procedures to report oil discharges	33 CFR 155.750

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.3	☐ Determine type of IGS system installed. • Flue gas • Gas generator • Nitrogen bottles	
7.4	☐ Witness random sampling / testing of gas pad to verify inerted condition of cargo tanks as required for specific cargo type. **(note: An inerted or non-flammable condition does not necessarily mean 8% or less O2 content.)** **If vapor control system is required – tanks must be at 8% or less O2.**	CG-3PCV msg dtg 031400ZNOV06 Subj: Enforcement Guidance for Inert Atmospheres in Cargo Tanks that Carry Hydrocarbon Cargos
7.5	☐ Examine external components of Inert Gas System. • Piping and components • Scrubber • Fans • Valves • Expansion joints • Deck water seal • All Free of corrosion or leakage	SOLAS (2004 cons) II-2, Reg 4-5.5 FSS Code, Chp 15 46 CFR 32.53

Tank #	% Oxygen
☐ Vessel is gas-free or not carrying cargoes required to be inerted	

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.6	☐ Examine IGS components for proper operation. **(Spot check random sampling of components)** • Blowers – Free from excessive bearing noise and vibration – Remote shutdown for IGS blower • Scrubber room ventilation • Primary and alternate saltwater scrubber pumps • Deck seal – Water level – Automatic filling – Open drain cocks on IG main • Remote operated / automatic control valves – Open or closed indicator • Gauges – Calibration of inline O2 analyzing equipment – Check O2 and pressure level recordings • Portable instruments calibrated • IG generator – Combustion control system and fuel supply • Interlocking of soot blowers (IGS automatically shuts down when soot blowers engaged) • IGS capable of maintaining tanks at 8% O2 or less • IGS output is 5% O2 or less	SOLAS (2004 cons) II-2, Reg 4-5.5 FSS Code, Chp 15 46 CFR 32.53
7.7	☐ Witness random test of IGS audible and visual alarms. **(Not all alarms / shut downs required to be tested, unless clear grounds exist)** • High O_2 content of gas in IGS main – Activated at 8% concentration • Low gas pressure in IGS main downstream of all non-return devices – Activated at 100mm (4 inches) water • High gas pressure in IGS main downstream of all non-return devices – Blowers automatically shut down – Gas-regulating valves close • Low / high water level or low flow to deck seal – Blowers automatically shut down • Blowers discharge high temperature – Alarms activated at 150°F (65.6°C) or lower – Blowers automatically shut down – Gas-regulating valves close	FSS Code, Chp 15

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.7 (cont)	• Failure of IGS blowers – Gas-regulating valves close • Low water pressure or flow to flue gas scrubber – Blowers automatically shut down – Gas-regulating valves close • High water level in flue gas scrubber – Blowers automatically shut down – Gas-regulating valves close • Failure of power supply to automatic control system for gas-regulation valve and indicating devices for IG supply • IG generator – Insufficient fuel supply • Failure of power supply to generator or control system for generator.	
7.8	☐ Examine cargo monitor and control system. • CG approved or meets IMO Resolution A.393(X) • Verify recording device operational & provides continuous record of discharge in liters/ NM & total quantity discharged, or oil content & date & time. • Spot check recording device records kept onboard for 3 years. • Fitted with means to stop discharge if system fails. • Discharge rate does not exceed 30 liters / NM.	33 CFR 157.12 MARPOL (2006 cons) Annex I, Reg 31 & 34

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.9	☐ Examine fire doors (random check). • Machinery space and stair towers • Doors not tied or blocked open • Installed closure devices are working **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS II-2/9.4.2 (2004 Cons Ed) **Note 2:** For vessels constructed on or after 01JUL98 - 30JUN02: 74 SOLAS II-2/47 (2001 Cons Ed) **Note 3:** For vessels constructed on or after 01SEP84 - 30JUN98: 74 SOLAS II-2/47 (81 Amendments) **Note 4:** For vessels constructed on or after 25MAY80 - 31AUG84: 74 SOLAS II-2/23(f) (unamended) **Note 5:** For vessels constructed on or after 26MAY65- 24MAY80: 60 SOLAS II/42	
7.10	☐ Verify operation of smoke/heat detection alarm systems. (Spot Check) **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS II-2/7.5.5 (2004 Cons Ed) **Note 2:** For vessels constructed on or after 01SEP84 - 30JUN02: 74 SOLAS II-2/14 (81 Amendments) **Note 3:** For vessels constructed on or after 25MAY80 - 31AUG84: 74 SOLAS II-2/13 (unamended) **Note 4:** For vessels constructed on or after 26MAY65 - 24MAY80: 60 SOLAS II/61	

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.11	☐ Witness operation of fire main system. • Operation of emergency fire pump • Adequate pressure (two hose streams, forward/aft main and emergency) • Required number/location of fire pumps • Operation of main fire pumps • Material condition of fire main under pressure on deck • Pumps, hydrants, piping, hoses, foam monitors, and nozzles in good condition and available for immediate use • No excessive leaks from the fire pump **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS II-2/14.2.1.2 (2004 Cons Ed) **Note 2:** For vessels constructed before 01JUL02: 74 SOLAS II-2/21 (2001 Cons Ed)	

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.12	☐ Examine structural fire protection (random check) for the following: • Missing/improper insulation in bulkhead penetrations • Changes to original construction (category A, B, C class boundaries) that are no longer in compliance with the structural fire protection standards. • Operation of ventilation dampers (random check) **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS II-2/9 (2004 Cons Ed) **Note 2:** For vessels constructed between 01SEP84-30JUN02: 74 SOLAS II-2/44 (81 Amendments) **Note 3:** For vessels constructed on or after 25MAY80 - 31AUG84: 74 SOLAS II-2/51 (unamended) **Note 4:** For vessels constructed on or after 26MAY65 - 24MAY80: 60 SOLAS II/36	
7.13	☐ Verify Oil Discharge Pollution placard posted.	33 CFR 155.450
7.14	☐ Examine incinerator • Shipboard garbage properly disposed • Evidence of use (clinkers) • Safety of burner assembly • Electrical controls • MARPOL V placard posted • Liters/hour • Verify approved by USCG or Administration • Note the use and quantities of sludge incineration in the ORB • Question crew on how much waste oil/sludge the incinerator burns. If all waste oil is burned, verify/ compare the capacity of incinerator against ship's daily production of sludge	MARPOL 73/78 Annex V/3 & 9 33 CFR 151.63

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.15	☐ Examine oil and HAZMAT. • Fuel oil and bulk lubricating oil discharge containment • Prohibited oil spaces	33 CFR 155.320 33 CFR 155.470
7.16	☐ Examine oily water separating equipment, bilge alarm, and bilge monitor.	MARPOL 73/78 Annex I/16 33 CFR 155.380 PCV Policy Letter 01-06

If oily water separator built to . . .	Then continue with step . . .
MEPC.107(49)	7.16a
MEPC.60(33)	7.16b

7.16a **Oily Water Separator (built to MEPC.107(49) (New Standard)**

- Conduct review of 15 parts per million (ppm) bilge monitoring/alarm records
- Verify oily water monitoring/bilge alarm equipment designed to store data for up to 18 months & able to display or print a protocol
- Verify recorded items: date, time, alarm status, and operating status of the 15 ppm separator
- Compare above entries against existing ORB entries for nonconformities
- Verify 15-ppm monitor/bilge alarm sealed
- Verify 15-ppm oily water monitors or bilge alarms have been calibrated. (To be completed only by an authorized equipment testing company)
- Verify valid IOPP certificate accompanied by the manufacturer's calibration certificate as proof (Manufacturer's calibration certificates cannot be older than five years)
- No further testing is needed unless tampering or malfunctioning is suspected. The entire alarm unit may be replaced by a calibrated 15 ppm alarm. A bilge alarm should not be accepted as compliant if it is over five years old unless it has been calibrated as discussed above

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.16b	**Oily Water Separator (built to MEPC.60(33)) (Old Standard)**	MARPOL 73/78 Annex I/16
	If the OWS is approved in accordance with Resolution MEPC.60(33), the following examination guidance is recommended as a supplement to the guidance contained in NVIC 8-83 and NVIC 6-94, Change 1.	33 CFR 155.380 PCV Policy Letter 01-06
	• Identify crewmembers responsible for the operation of the OWS based on the Safety Management System or by asking the Chief Engineer • During the operational test, observe and determine their competency with the equipment and associated piping • Consult the manufacturer's operations manual for operating the OWS and OCM and follow any relevant procedures provided • Witness operational test for at least 15-20 minutes • Verify fluid entering the OWS for processing comes directly from the bilge holding tank or rose box and is not diluted by open sea or fresh water connections • Verify no dilution of the processed oily water sample line to the OCM. The OCM outlet fluid should be visible • If the vessel uses a source tank to supply oily water to the OWS, verify the source tank level drops proportionately in comparison to the capacity of the OWS for the period of time the equipment was run • Verify the OWS effluent is visibly clean • Verify that reasonable quantities of consumable filter elements, coalescing media, recording paper, etc., if applicable • Verify that OWS manufacturer's recommended spare parts onboard • Examine OWS for signs of unapproved modifications bypasses, etc.	

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.17	☐ Examine bilge alarm and bilge monitor. <u>Bilge Alarm/Oil Content Monitor/Meter(OCM)</u> Required on vessels 10,000 gross tonnage and above. • Examine OCM for indications of tampering (simple electrical modifications and adjustments of the electronic components) • Witness operational test of the unit (usually at the same time as the OWS) • Verify OCM activates an alarm and closes the overboard discharge valve and directs the discharge back to a tank or the bilge when the content exceeds 15 ppm • Visually verify oily sample via sample valve for nonpresence of oil • Verify sample analyzed by the OCM is the OWS output by tracing the sample line to the OWS output • Verify system has no means to dilute the source sampling entering the OCM • Verify OCM fresh water flush valve, if provided, is closed when OCM is sampling **<u>Note</u>:** Never test the OCM using sticks, tea, coffee, or similar unorthodox methods. Always refer to the manufacturer's specified procedure or the vessel's written procedures for proper testing methods.	MARPOL 73/78 Annex I/16 33 CFR 155.380
7.18	☐ Examine marine sanitation device for: • Type (I, II, or III) • Nameplate • Placard • Material condition	33 CFR 159.7

Task 7.0 Conduct Machinery Examination

Step	Action	Ref

7.19	☐ Examine main and auxiliary machinery spaces for:
	• General housekeeping
	• Fire hazards, shock, and electrical hazards
	• Personnel hazards (moving parts not protected, hot surfaces, etc.)
	• Leaking fuel oil piping or fittings
	• Sea chests, sea valves/spool pieces in good condition
	• Tank tops and bilges free of oil
	• Watertight doors
	  • Local/remote control
	  • Alarm
	  • Hand/power operation
	• Emergency bilge suction valve
		SOLAS 74/78 I/11 (a)
		MSC circular 601
		
		74 SOLAS II-1/26 (2004 Cons Ed)
		
		ICLL 66 Annex I/12

7.20	☐ Examine operation of steering gear machinery. • No excessive hydraulic leaks • Minimal play present in hydraulic-ram/linkage. • Adequate lubrication • Proper linkage (presence of cotter pin, washers, locknuts, etc) • Containment/raised deck • Presence of block diagram • Presence of gyrocompass repeater/mounting unit - verify reading with bridge gyro (Ch.V.19.2.5) • Verify rudder angle indicator consistent with bridge • Operation of communication system between bridge and steering room	SOLAS 74/78 II-1/29

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.21	☐ Examine Auxiliary steering. • Witness operation of auxiliary steering • Crew knowledge to properly align system • Instructions posted for emergency steering changeover procedures • 60 sec operations (from 15 to 15 degrees)	74 SOLAS II-1/29.4
7.22	☐ Examine Main steering. • Operation of main steering (Followup/Nonfollowup modes) • Absence of hunting in followup mode • 28-second operation (from 30-35 degrees) (with both power units ons) • Systems operate independently • Unusual motor noise/vibrations/leaks • Loss of power alarm/low level alarm • Presence of filled reserve hydraulic oil tank	74 SOLAS (cons 2004) II-1/29.3.2 & 29.6.1.2
7.23	☐ Examine main ship service generators (minimum two operational). • High pressure fuel delivery lines for leaks and improper repairs • Cooling lines for leaks and improper repairs • High pressure lines are double jacketed • Guards in place around rotating machinery. • Lagging is securely in place and not oil soaked • No excessive leaks or improper repairs • No excessive engine hunting/surging (rpm variance)	SOLAS 74/78 II-1/41

Task 7.0 Conduct Machinery Examination

Step		Action	Ref
7.24	☐	Examine main ship engine(s) • High pressure fuel delivery lines for leaks and improper repairs • Cooling lines for leaks and improper repairs • High pressure lines are double jacketed • Guards in place around rotating machinery. • Lagging is securely in place and not oil soaked • No excessive leaks or improper repairs • No excessive engine hunting/surging (rpm variance)	SOLAS 74/78 II-1/26, 27

Task 7.0 Conduct Machinery Examination

Step	Action	Ref
7.25	☐ Examine & witness test of emergency ship service generator. (no load test required) • Located above the uppermost continuous deck and outside the machinery casing • High pressure fuel delivery lines not leaking or improperly repaired • Cooling lines have no leaks or improper repairs • High pressure lines are double jacketed • Guards in place around rotating machinery • Lagging is securely in place and not oil soaked • Excessive leaks or improper repairs • Excessive engine hunting/surging (rpm variance) • Emergency generator is self-contained • Set up to automatically energize • Documented periodic tests under load • Shock, fire, and electrical hazards • Emergency generator has independent fuel supply • Fuel tanks over 500 ltr have emergency shutoff valve outside the space • Adequate voltage/frequency (60 hz) supplied to the electrical switchboard • Nonconductive mat in front of switchboard • Operation of ground detection system • Review Engineering Logs – spot check for record of malfunctioning machinery • Two Independent sources of starting **Note 1:** For vessels constructed after 01SEP84: 74 SOLAS II-1/43 (81 Amendments) **Note 2:** For vessels constructed before 01SEP84: 74 SOLAS II-1/26 (74 unamended and 60 SOLAS)	SOLAS 74/78 (cons 2004) II-1/43, 44
7.26	☐ Verify two bilge pumps.	SOLAS 74/78 II-1/21

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.1	☐ Verify the following charts and publications for U.S. waters/intended voyage (foreign equivalent may be accepted (NVIC 9-83)): • Current and corrected charts and/or ECDIS • U.S. Coast Pilot • Sailing Directions • Coast Guard Light List • Tide Tables • Tidal Current Tables • International Rules of the Road (COLREGS) • Inland Rules of the Road • International Code of Signals • IAMSAR Manual • Plotting Equipment	74 SOLAS (2000 Amend) V/27 (all ships) (2004 Cons Ed) 33 CFR 164.33
8.2	☐ Verify operation of electronic depth sounding device and recorder for: • Accurate readout (compare to charted depth) • Continuous recorder (chart or electronic) **Note 1:** For vessels constructed on or after 1JUL02 – vessels 300 GT and over: 74 SOLAS V/19.2.3.1 (2004 Cons Ed) **Note 2:** For vessels over 500 GT constructed on or after 25MAY80 and ships of 1600 GT constructed before 25MAY80: 74 SOLAS V/12(k) (2001 & 1997 Cons Ed)	33 CFR 164.35 (h) 74 SOLAS (cons 2004) V/19.2.3
8.3	☐ Verify operation of electronic position fixing device.	74 SOLAS (2000 Amend) V/19.2.1.6 (all ships) (2004 Cons Ed) 33 CFR 164.41

Task 8.0 Conduct Bridge Examination

Step	Action	Ref

8.4	☐ Examine indicators for the following:
	• Operation of illuminated rudder angle indicator (centerline and bridge wing)
	• Following indicators are visible from centerline conning position:
	  • Rpm indicator
	  • Propeller pitch (CPP systems)
	  • Speed and distance indicators
	  • Lateral thrusters
	
	Note 1: For vessels constructed on or after 1JUL02 74 SOLAS V/19 (2004 Cons Ed)
	
	Note 2: For vessels over 500 GT constructed on or after 01SEP84 and ships of 1600 GT before 01SEP84: 74 SOLAS V/12 (2001 Cons Ed)
		33 CFR 164

8.5	☐ Verify cargo ventilation indicators on bridge are consistent with vessel operations. **Note 1:** For vessels built after 01JUL02 use: 74 SOLAS II-2/20.3.1.3(2004 Cons Ed) **Note 2:** For vessels built prior to 01JUL02 use: 74/78 SOLAS II-2/53.2.3.3 (2001 Cons Ed.)	
8.6	☐ Examine training logs and drill records. • Onboard training in use of lifesaving equipment (all crew members) • Logbook records (weekly lifeboat engine tests/quarterly lifeboat release) • Abandon Ship / Fire drills conducted	74 SOLAS III/19.5 (2004 Cons Ed) (all ships)

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.7	☐ Examine bridge log for the following: • Pre-arrival tests conducted • Casualties (navigation equipment and steering gear failures reported) • Steering gear drills (See Note 1) • Emergency steering drills	74 SOLAS (all ships chapter) (2000 Amend) V/26.4 (2004 Cons Ed) 33 CFR 164.25
	Note 1: Must be done 48 hrs prior to arrival if not logged quarterly.	STCW 95

8.8	☐ Verify operational condition of radar(s) and ARPA .
	• Required number of radars on bridge
	• Number of radars to number of radar antennas
	• Witness crew energize radars
	• Compare radar picture with surrounding objects
	• Compare radar heading to gyro heading
	• ARPA is IMO performance
	• Witness crew acquire contact with ARPA (if equipped)
	• Witness ARPA track contact (if contact available)
	• Verify independent operation of radars (if two required)
	• If over 10,000GT verify:
	  • Dual radar system has short & long range capability
	  • True north feature – display stabilized in azimuth
		33 CFR 164.35 (a)
		33 CFR 164.38
		33 CFR 164.37

	Note 1: For vessels constructed on or after 01JUL02 74 SOLAS V/19 (2004 Cons Ed). **Note 2:** For vessels over 500 GT constructed on or after 01SEP84 and ships of 1600 GT before 01SEP84: 74 SOLAS V/12 (2001 Cons Ed)	

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.9	☐ Examine compasses for the following: • Illuminated gyrocompass repeater is visible from center conning position • Verify randomly all gyrocompass repeaters are consistent • Verify illuminated magnetic compass is visible from center conning position • Verify deviation table is current **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS V/19 (2004 Cons Ed) **Note 2:** For vessels over 500 GT constructed on or after 01SEP84 and ships of 1600 GT before 01SEP84: 74 SOLAS V/12 (2001 Cons Ed)	33 CFR 164.35 (b-d) 74 SOLAS (cons 2004) V/19.2
8.10	☐ Verify VHF radio present.	74 SOLAS IV/7.1.1 (2004 Cons Ed) (all ships chapter, cargo ships 300 GT and up) 33 CFR 26

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.11	☐ Examine Voyage Data Recorder (VDR) Simplified-Voyage Data Recorder (S-VDR) • Verify any exemptions from flag • Verify crew knowledge of unit operation (e.g., Save mode) • Retrievable unit (may be float-free) • Approval number (SOLAS V/18.1) • Installation IAW IMO Resolution A.861(20) • Arrival testing (by approved service) • Location of protective capsule • Microphone location • Alarms (audible/visual) • Power source **Note 1:** For cargo ships 20,000 GT and above constructed before 1JUL02, at the first scheduled drydocking after 1JUL06, but not later than 1JUL09. (May be an S-VDR) **Note 2:** For cargo ships 3000 GT to less than 20,000 GT constructed before 1JUL02, at the first scheduled drydocking after 1JUL07, but not later than 1JUL10. (May be an S-VDR) **Note 3:** For cargo ships 3000 GT above constructed on or after 1JUL02 (must be VDR).	74 SOLAS V/20 (Cons Ed 2004) MSC circular 1024

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.12	☐ Examine Automatic Identification System (AIS). • Verify the locations of the AIS Pilot Plug (near the pilot conning station and a 3 prong, 120 volt, AC outlet) • Verify AIS is energized and displays the following screens (AIS may be secured while vessel is at pier):	74 SOLAS (2000 Amend) V/19.2.4 (all ships) (2004 Cons Ed) 33 CFR 164.46 – 1,600 GT and over

Navigation Status Screen	Target Data Screen
MMSI IMO number Ship name Length and beam Type of ship Location of position fixing antenna on the ship (aft of bow and port or starboard of centerline) Ships draught Hazardous cargo (type) Destination and estimated time of arrival (ETA) Route plan (waypoints)	Target data Navigation data reflects current ship's operation

8.13	☐ Examine steering gear instructions for: • Instructions • Emergency instructions • Block diagram	74 SOLAS (2000 Amend) V/26.3.1 (all ships) (2004 Cons Ed) 33 CFR 164.35 (k)
8.14	☐ Examine maneuvering facts sheet with warning statement.	33 CFR 164.35 (g)
8.15	☐ Examine radiotelephone (VHF-FM)	33 CFR 26.03, 33 CFR 26.04

Task 8.0 Conduct Bridge Examination

Step		Action	Ref
8.16	☐	Examine EPIRB (406 MHz). • Float free mount • Battery date current • Hydrostatic release	74 SOLAS IV/7.1.6 (2004 Cons Ed) (all ships chapter)
8.17	☐	Examine GMDSS. • Verify Safety Radio certification is valid & GMDSS compliant for the sea area the ship is operating in	74 SOLAS I/12 (a) (iv)(all ships chapter
		• Review radio log	74 SOLAS IV/17 (2004 Cons Ed) (all ships chapter)
		• Verify MSI messages being received • Verify MMSI display on DSC radios match ship's documents • Additional radio equipment for area of operation	74 SOLAS IV/4 (2004 Cons Ed) (all ships chapter)
8.18	☐	Witness operational test of steering • Test power/control pumps independently • Test follow up and non-follow up controls • Ensure rudder angle indicator is accurate & consistent with aft steering rudder angle indicator • Activate loss of power alarm.	74 SOLAS II-I/29 (2004 Cons Ed) (all ships chapter)
8.19	☐	Examine GMDSS lifeboat radios (VHF). • Verify 3 if over 500 GT • Verify in operable condition	74 SOLAS III/6.2.1 (2004 Cons Ed) (all ships)
8.20	☐	Examine nine (9) GHz radar transponder (SART). • Ensure vessels > 300 GT and < 500 require 1 • Ensure vessels > 500 GT require 2 • Ensure stowed so to be rapidly placed in survival craft, or • Stowed in survival craft	74 SOLAS III/6.2.2 (2004 Cons Ed) (all ships)

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.21	☐ Examine emergency source of power (radio). • Independent of ship's power system • One- or six-hour time duration • Inspect battery system • Inspect battery charger	74 SOLAS IV/13 (2004 Cons Ed) (all ships chapter)
8.22	☐ Examine NAVTEX SOLAS 74/78 IV/7.1.4. • Review printouts from recent days	74 SOLAS IV/7.1.4 (2004 Cons Ed) (all ships chapter; cargo ships 300 GT and up)
8.23	☐ Examine radio installation. • Inspect for safe installation • Inspect for independent lighting • Inspect for call sign marking	74 SOLAS IV/6 (2004 Cons Ed) (all ships chapter, cargo ships 300 GT and up)
8.24	☐ Examine lifejackets—watchstanders and crew (random check). • Inspect condition • Inspect for proper stowage • Inspect for retro-reflective material • Inspect lights for operation • Inspect whistles	

Note 1: For vessels constructed on or after 01JUL86: 74 SOLAS III/7.2

Note 2: For vessels constructed from 25MAY80 to 30JUN86: 74 SOLAS III/22

Note 3: For vessels constructed from 26MAY65 to 24MAY80: 60 SOLAS III/22

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.25	☐ Examine line throwing appliances (spot-check). • Ensure four charges **Note 1:** For vessels constructed on or after 01JUL98: 74 SOLAS III/18 (2004 & 2001 Cons Ed) & LSA Code 7.1 **Note 2:** For vessels constructed 01JUL86 - 30JUN98: 74 SOLAS III/17 & 49 (1997 Cons Ed) **Note 3:** For vessels constructed 25MAY80 - 30JUN86: 74 SOLAS (unamended) III/23 **Note 4:** For vessels constructed 26MAY65 - 24MAY80: 60 SOLAS III/23	
8.26	☐ Examine Pyrotechnics (random check). • Ensure 12 distress flares/not expired **Note 1:** For vessels constructed on or after 01JUL86: 74 SOLAS III/6.3	
8.27	☐ Examine daytime signaling lamp. **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS V/19.2.2.2 **Note 2:** For vessels constructed before 01JUL02: 74 SOLAS V/11	

Task 8.0 Conduct Bridge Examination

Step	Action	Ref
8.28	☐ Examine quick-release life buoy with self-activating smoke signal. **Note 1:** For vessels constructed on or after 01JUL86: 74 SOLAS III/7.1.3 **Note 2:** For vessels constructed 25MAY80 - 30JUN86: 74 SOLAS (un-amended) III/21 (g) **Note 3:** For vessels constructed 26MAY65-24MAY80: 60 SOLAS III/21 (g)	
8.29	☐ Examine immersion suits and thermal protective aids (random check). • Inspect condition • Inspect retro-reflective material • Verify every member assigned to crew the rescue boat or assigned to the marine evacuation system party (if applicable) has own immersion suite (not required if vessel operates constantly in warm waters.) • Verify immersion suits are readily accessible • Verify immersion suits are located at remote work or watch stations • Examine daytime signaling lamp	SOLAS (cons 2004) III/7.3

Task 9.0 Conduct General Health and Safety Examination

Step	Action	Ref
9.1	☐ Examine fire doors (random check). • Examine machinery space and stair towers • Ensure they are not tied or blocked open • Ensure installed closure devices are working **Note 1:** For vessels constructed on or after 01JUL02: 74 SOLAS II-2/9.4.2 (2004 Cons Ed) **Note 2:** For vessels constructed on or after 01JUL98 - 30JUN02: 74 SOLAS II-2/47 (2001 Cons Ed) **Note 3:** For vessels constructed on or after 01SEP84 - 30JUN98: 74 SOLAS II-2/47 (81 Amendments) **Note 4:** For vessels constructed on or after 25MAY80 - 31AUG84: 74 SOLAS II-2/23(f) (unamended) **Note 5:** For vessels constructed on or after 26MAY65 - 24MAY80: 60 SOLAS II/42	
9.2	☐ Examine Accident Prevention and Occupational Health • Rails • Guards • Protective clothing and equipment • Warning signs posted in crew work areas	ILO -147 COMDTINST 16711.12A
9.3	☐ Examine crew accommodations. • Verify habitable conditions • Ensure adequate lighting and ventilation • Inspect space to be free of cargo and stores • Exam individual berths	ILO -147 COMDTINST 16711.12A
9.4	☐ Examine hospital space • Ensure designation for ships ≥500 GT with 15 or more crew on voyage of more than 3 days • Inspect that it is not used for stowage or berthing • Ensure properly operating toilet	ILO-147 COMDTINST 16711.12A

Task 9.0 Conduct General Health and Safety Examination

Step	Action	Ref
9.5	☐ Examine the galley. • Sanitary conditions • Hot and cold running water • Adequately equipped to prepare food • Mess hall is provided for crew	ILO-147 COMDTINST 16711.12A
9.6	☐ Examine refrigerator and stores spaces to ensure free of insects & rodents.	ILO-147 COMDTINST 16711.12A
9.7	☐ Examine sanitation areas. • Verify toilets are working (1 per each 8 crew) • Verify showers operate (1 per each 8 crew) • Verify wash basins operate • Verify lighted/heated/ventilated • Verify reasonably clean	ILO-147 COMDTINST 16711.12A
9.8	☐ Examine for general safety. • Ensure safe access to all spaces • Observe that spaces are adequately lighted • Observe for no electrical hazards • Observe for warning notices posted as necessary	ILO-147 COMDTINST 16711.12A

Task 9.0 Conduct General Health and Safety Examination

Step	Action	Ref
9.9	☐ Observe muster lists and emergency instructions are: • Available for each person • Posted in conspicuous places • Written in a language understood by the crew • Shows crew member duties	SOLAS 74/78 III/8 (all ships)
9.10	☐ Observe means of escape from accommodation, machinery, and other spaces. • Verify if two required (some exceptions) • Inspect for dead end corridors	
	Note 1: For vessels constructed on or after 01JUL02: 74 SOLAS II-2/13.4.2 (2004 Cons Ed)	
	Note 2: For vessels constructed on or after 01JUL86 - 30JUN02: 74 SOLAS II-2/45 (83 Amendments)	
	Note 3: For vessels constructed on or after 25MAY80 - 30JUN86: 74 SOLAS II-2/53(a) (unamended)	
	Note 4: For vessels constructed on or after 26MAY65 - 24MAY80: 60 SOLAS II/68 (b)	

Task 10.0 Conduct Cargo Monitor

Step		Action	Ref

10.1	☐	Conduct monitor of cargo or fuel transfer
		• Verify Person in Charge on site.
		• Provided advance notice of transfer (in local COTP requires this notification)
		• Verify vessel moorings adequate.
		• Examine transfer hose / loading arms
		  • Long enough
		  • Supported
		  • Unused transfer system parts blanked off
		  • Material condition of hoses
		  • Verify cargo piping hydrostatic testing completed annually.
		• Connected overboard discharge / sea suction valves sealed or lashed shut.
		• Verify proper discharge containment – periodically drained as necessary.
		• Verify drains / scuppers closed by mechanical means.
		• Examine all connections in the transfer system for leaks.
		• Proper communications
		• Verify emergency shut downs are operable.
		• Verify transfer procedures being followed.
		• Verify Declaration of Inspection properly filled out.
		• Verify proper connection for transfer operation:
		Temporary bolted connections:
		  • Bolts in at least every other hole (no less than 4 bolts used) – for ANSI approved flanges
		  • Bolts in every hole for non-ANSI flanges
		Permanently connected flange:
		  • Bolts in every hole
			33 CFR 156.115, 118, 120, 130, 150, 170

Task 11.0 Observe Drills

Step	Action	Ref
11.1	☐ Evaluate fire drill. **Note:** If crew is unfamiliar with their duties or incapable of safely responding to a shipboard fire, halt the drill and notify the Master that the drill was unsuccessful and that additional training and/or additional exercises are necessary. Provide the crew with at least one additional opportunity to demonstrate competency before detaining the vessel. • Coordinate with the Master and/or ship's safety officer to determine best time and location in which to hold drill considering locations where ship is most likely to experience a fire, where most recent drills have been held, and while minimizing disruptions to cargo operations. The PSCO should not be directing the Master where or how to conduct the drill. • Utilize available resources (such as smoke-generating machine) to make drill as realistic as possible • Review PSCO's expectations with the Master and/or ship's safety officer in regards to actions crew needs to demonstrate (such as charging fire hoses or not) while emphasizing importance of personnel safety during the drill • Have the Master initiate drill or, as an alternative, notify crewmember of simulated fire and observe him/her make notifications • Ensure ship's fire alarm/general alarm is sounded and is audible in appropriate locations	74 SOLAS III/19.3.4 (all ships)

(Sub-steps for 11.1 continued on next page)

Task 11.0 Observe Drills

Step	Action	Ref
11.1 (cont)	• Ensure crew musters promptly at appropriate location(s). (all personnel must be accounted for) • Ensure adequate communications are established between control station (normally Master-on-bridge) and fire party (normally Chief Mate) • Ensure firefighter's outfits have been properly donned by appropriate crewmembers and that the outfit includes proper gear • Ensure that crew utilizes proper firefighting methods to attack simulated fire • Ensure all crewmembers are able to effectively communicate with each other • Witness proper closing of all automatically closing fire doors • Conclude drill and debrief fire party, Master and ship's safety officer with PSCO's observations on areas to improve/address. The PSCO should not be providing firefighting training to the crew.	

Task 11.0 Observe Drills

Step	Action	Ref
11.2	☐ Evaluate abandon ship/lifeboat drill. **Note:** Do not require crews to lower, release, and exercise lifeboats in the water. If the Master wants to lower the boat to the water, leave that decision to him. If the crew is unfamiliar with their duties or incapable of safely operating the lifesaving equipment, halt the drill and notify the Master that the drill was unsuccessful and that additional training and/or additional exercises are necessary. Provide the crew with at least one additional opportunity to demonstrate competency before detaining the vessel. • Conduct meeting with vessel's master to outline expectations for drill • Coordinate Coast Guard exam team duties to ensure that all areas of the lifeboat lowering operation are witnessed by a team member • Commence drill - have master sound abandon ship alarm • Ensure all crewmembers muster at appropriate abandon ship stations • Ensure that all crewmembers are properly dressed for abandoning ship and are wearing lifejackets	74 SOLAS III/19.3.3 (all ships)

(Sub-steps for 11.2 continued on next page)

Task 11.0 Observe Drills

Step	Action	Ref
11.2 (cont)	• Ensure that all crewmembers have provided additional survival gear and have completed duties per ship's muster list and emergency instructions • Spot-check crewmembers' knowledge of survival techniques and equipment through question and answer discussion • Assess abandon ship drill portion including crew's performance, crew's ability to effectively communicate, and crew's knowledge • Ensure that the crew can prepare lifeboat for lowering within 5 minutes by not more than 2 crewmembers • Witness lowering of boat from stowed position to the embarkation deck **Assess performance of drill to this point to determine if lifeboat needs to be or the Master wants to lower it to water. If yes, continue with the following steps:** • Examine lowering of lifeboat from embarkation deck level to the water • Witness release of lifeboat release gear • Witness crew's performance with lifeboat in water • Witness retrieval of lifeboat • Witness stowage for sea of lifeboat • Once lifeboat has been stowed, assess lifeboat drill including operation of launching appliance, crew's performance, crew's ability to effectively communicate, and requirement to have lifeboat launched within 10 minutes **Note 1:** For vessels constructed on or after 01JJUL98: 74 SOLAS III/19.3.3.1.1 **Note 2:** For vessels constructed 01JUL86 - 30JUN98: 74 SOLAS III/6.4.2 & 50 **Note 3:** For vessels constructed 25MAY80 - 30JUN86: 74 SOLAS (unamended) III/19(a)(iii) **Note 4:** For vessels constructed 26MAY65 - 24MAY80: 60 SOLAS III/19(a)(iii)	

Task 12.0 Conduct Post Examination Debrief

Step		Action	Ref
12.1	☐	Issue letter/certificates. • Issue COC (CG-Form 3585) if vessel is in compliance with applicable regulations. • Issue Form A/B if need extra space to document deficiencies or vessel is detained.	NVIC 06-03 Change 2 CG-Form 3585 Instruction Page

Task 13.0 ISM Expanded Examination

During the PSC examination, the PSCO may find non-conformities, or objective evidence indicating non-fulfillment of safety management system requirements. The PSCO may then expand the PSC examination to include further examination of the vessel's Safety Management System non-conformities. In doing so, the PSCO should limit the expanded examination to the observed non-conformities with the primary intention to have the vessel rectify the non-conformities or initiate steps to rectify the non-conformities as the circumstances dictate. The PSCO should always review the relevant portion of the SMS that pertains to the identified non-conformity to determine whether the SMS is deficient or implementation of the SMS is deficient. The PSCO should also determine whether any non-conformity, or collection of non-conformities constitute a major non-conformity. The PSCO should note that a major non-conformity is a deviation from SMS requirements that poses a serious threat to personnel or ship safety, or serious risk to the environment that requires immediate corrective action. Lack of an effective or systematic implementation of the vessel's SMS or significant lack of understanding of the vessel's SMS by the Master and key crewmembers qualify as a major non-conformity. Once again, the primary aim is to have the ship correct the non-conformities; however, a major non-conformity should result in an IMO reportable detention. The PSCO should request but not require the vessel's flag or authorized RO to audit the vessel's SMS once a major non-conformity is identified. Refer to NVIC 04-05 for further guidance.

ISM Code Reference	Description of Non-Conformity
ISM Code 1.2	Are SMS deficiencies present that pose a {serious} threat to personnel, the ship, or {serious} risk to the environment, that require immediate corrective action? List deficiencies and their impact: _____ _____ _____ _____ _____ _____ _____ Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ _____ _____ _____ Continue if necessary in Notes

ISM Code Reference	Description of Non-Conformity
ISM Code 2	Objective evidence exists that: • The vessel's SMS does not adequately address the safety and environmental policy objectives stated in the ISM Code • The vessel does not effective or systematically implement the safety and environmental policy objectives stated in the SMS List deficiencies and their impact: _____ _____ _____ _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes
ISM Code 3 and 4	Objective evidence exists that : • The Company does not define and document the responsibility and interrelation of personnel that perform SMS activities. • The Company is not responsible for or has ensured adequate resources and shore based support to available to enable the designated person to perform SMS responsibilities • The Company has not provided a designated person(s), with access to highest management, with resources to implement the SMS List deficiencies and their impact: _____ _____ _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes

ISM Code Reference	Description of Non-Conformity
ISM Code 5	Objective evidence exists that: • The vessel's SMS does not adequately address the Master's SMS responsibilities • The vessel's Master has a substantial lack of knowledge of his/her SMS responsibilities or is not satisfying these responsibilities List deficiencies and their impact: _____ _____ _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes
ISM Code 6	Objective evidence exists that : • The Company has not ensured the Master is qualified for command, fully conversant with the SMS, and provided adequate support for the Master to perform SMS activities. • The Company has not ensured the crew have adequate qualifications, fitness, and knowledge of SMS procedures and relevant standards to perform their duties • The Company does not have or implement processes related to training new personnel in safety & environmental protection responsibilities • The Company has not provided a SMS in the working language of the vessel (or languages understood by the crew) • The Company has not ensured the crew are able to effectively communicate with regard to SMS duties List deficiencies and their impact: _____ _____ _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes

ISM Code Reference	Description of Non-Conformity
ISM Code 7	Objective evidence exists that : • The Company has not established procedures for the preparation of plans and instructions, including checklists, for key shipboard operations related to the safety of the ship and prevention of pollution. List deficiencies and their impact: _____ _____ _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes
ISM Code 8	Objective evidence exists that : • The Company has not established procedures to identify, describe, and respond to potential emergency shipboard situations • The Company has not established programs for drills and exercises • The Company has not provided measures to respond to emergencies involving its vessels List deficiencies and their impact: _____ _____ _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes

ISM Code 9	Objective evidence exists that: • The SMS does not include procedures to report, investigate and analyze non-conformities, accidents and hazardous situations nor include procedures for corrective action • The vessels does not follow SMS procedures for reporting non-conformities, accidents and hazardous situations • The Company or vessel does not take corrective action on reported non-conformities, accidents and hazardous situations List deficiencies and their impact: _____ _____ _____ _____ Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes
ISM Code 10	Objective evidence exists that: • The SMS does not include procedures to maintain the vessel in conformity with the relevant rules and regulations • The vessel does not follow SMS procedures to maintain the vessel inconformity with the relevant rules and regulations • Neither the Company or the vessel provides for regular inspections of the ship; reporting of non-conformities; appropriate corrective action; and records of related activities relative to vessel maintenance List deficiencies and their impact: _____ _____ _____ _____ _____ _____ _____ Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes

ISM Code Reference	Description of Non-Conformity
ISM Code 11	Objective evidence exists that: • The SMS does not include document control procedures with regard to SMS activities. • The vessel does not follow SMS procedures for document control List deficiencies and their impact: _____ _____ _____ _____ Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ _____ Continue if necessary in Notes
ISM Code 12	Objective evidence exists that: • The Company is not carrying out internal audits that ensure the vessel is satisfying required SMS activities • The Company is not periodically evaluating the SMS • The Company is not providing corrective action reports, informing all personnel having responsibility for the reported-on area, and ensuring timely corrective actions are carried out • Audits are not performed iaw Company procedures; auditors are not independent of areas being audited • The vessel does not follow SMS procedures for document control List deficiencies and their impact: _____ _____ _____Continue if necessary in Notes **Major Non- Conformity? (involves serious threat/risk to ship, personnel, environment) Y/N** _____ **Recommended Corrective Actions:** _____ _____ Continue if necessary in Notes

Recommended Control Procedures:

Considering the seriousness of the deficiencies, the OCMI or COTP must determine the appropriate control action to impose on these vessels to ensure the safety and security of the vessel, the port, and the environment. The degree of control imposed, as well as the authority used to exercise control, must be consistent with the nature of the deficiencies.

Vessel Control Procedures for Security and Safety

1. *Denial of Entry/Expulsion*. Use this control option only when allowing a vessel into U.S. waters or allowing a vessel to remain in U.S. waters creates an unacceptable level of risk, or an "immediate threat" to the port, personnel, or the environment. This should not be the first choice in dealing with substandard vessels and should be limited to the most egregious circumstances. In some cases, a substandard vessel may already be in U.S. waters when a PSC exam initiates an IMO detention. Some of these cases may lead to expulsion of the vessel after it has met minimum specified standards to leave port, but note that the COTP may not expel a vessel for safety considerations under the authority of SOLAS. The COTP may only expel a vessel for safety reasons under the authority of the Ports and Waterways Safety Act.

2. *IMO Reportable Detentions*. The COTP or OCMI may deem a vessel substandard when a PSCO finds clear grounds during a thorough PSC examination that it poses an undue risk to the crew, vessel, port, or environment. An IMO detention should be the primary course of action when there are clear grounds that a vessel subject to IMO instruments is substandard and corrective measures are necessary. The field's efforts to hold substandard vessels accountable will have far reaching effects, not only for the Coast Guard's PSC program but also toward meeting international expectations. Note also that the Coast Guard tracks IMO detentions and uses detention information to target vessels that have a higher risk of being substandard due past history or associations with higher risk owners, flag states, and recognized organizations.

3. *Captain of the Port (COTP) Order*. A COTP Order is an important tool to protect the safety and security of the port. The COTP may use such an order to implement a variety of control actions, including controlling the vessel's movement as it enters or departs a port. The COTP may also use such an order to expel a vessel out of port. The COTP may also process a civil penalty if a ship fails to comply with a COTP Order.

4. ***The COTP Order is not a substitute for pursuing and processing a detention under the applicable provisions of SOLAS, the ISPS Code, MARPOL, STCW, or the Load Line Convention.***

   a. Controlling the Ship's Movement. Depending on the deficiencies discovered, the COTP may issue a COTP Order to control or restrict the vessel's movement or operations. Many additional applications exist, not all of which relate to the condition of a vessel (e.g. A COTP Order may be used to order a vessel to a specific anchorage to protect a port during a hurricane.).

   b. Controlling the Ship's Movement for Security. If there is a concern that the vessel poses a risk to the port or vessel from sabotage or other subversive acts, a COTP Order requiring the presence of armed escort personnel onboard the vessel during the transit is warranted.

   c. Controlling the Ship's Movement for Safety. If the deficiency relates to the vessel's navigational equipment, the COTP Order might require an assist tug or may restrict a vessel to daylight operations. If the deficiency relates to pollution prevention equipment, the COTP Order may prohibit a vessel from bunkering or lightering until the vessel takes corrective measures.

5. *Customs Hold*. Under the authority of 46 U.S.C. 91, vessels intending to depart the U.S. for a foreign port should obtain a clearance from the Bureau of Customs and Border Protection (BCBP). If allegations exist that a vessel has violated certain U.S. safety and pollution laws, the Coast Guard may request that the BCBP deny or withhold the required clearance from the vessel until the vessel posts a letter of undertaking or surety bond. The COTP or OCMI should encourage the vessel to obtain proper surety before requesting a Customs Hold. In cases involving alleged violations of the MTSA regulations, the COTP or OCMI should first consult with the appropriate District legal office for guidance. This control should not be relied upon when a PSC detention is the appropriate option.

6. *Restrictions of Operations/Vessel Movement*. The COTP or OCMI may impose restrictions on vessel operations or movements if vessel deficiencies pose security or safety threats. Security deficiencies on a vessel or at a facility receiving vessels that present a danger to either the vessel or facility may be addressed one of two ways. The ship may correct deficiencies prior to arrival or the COTP or OCMI may order the vessel to proceed to a safe location until the vessel corrects the deficiencies. The COTP or OCMI may order a vessel to correct deficiencies even when these do not affect the vessel's fitness to proceed to sea. In such cases, the vessel is not substandard and the COTP or OCMI should not detain the vessel. Whenever the COTP or OCMI issues a COTP Order solely to comply with U.S. regulations, the authority for the order should be the PWSA.

7. *Delay*. The COTP or OCMI may delay a vessel until it corrects certain maritime security deficiencies. For example, if the port is at MARSEC level 2 (generally equivalent to security level 2) and the arriving vessel is at security level 1, the ship should implement the additional security requirements of security level 2 plus the additional requirements of MARSEC level 2 before the vessel may be allowed to enter port.

8. *Comprehensive Security Inspection*. This is the minimum control action to take when clear grounds of a security deficiency are established. Similar to the expanded exam for a safety violation, this expanded security inspection is very detailed, possibly including a review of relevant portions of the ship security plan. Since these plans include sensitive information, the COTP or OCMI may only examine the SSP if the only means available to verify or rectify a security requirement in question is through review of relevant portions of the SSP. The COTP or OCMI must also obtain authorization from the Master and/or flag Administration (as appropriate) before reviewing portions of the plan. If the Master or flag Administration does not authorize PSCO review, and the only means to determine compliance is through SSP review, the COTP or OCMI may consider the vessel for denial of entry, expulsion from port, or an IMO detention, depending on the circumstances. The prevailing need to keep U.S. ports secure justifies the potential delays to commerce that may result from this control action.

9. *Letter of Deviation*. The COTP or OCMI may authorize, upon written application, a deviation from any rule in 33 CFR Part 164. However, the COTP or OCMI must consider risks imposed by equipment failures reported IAW 33 CFR 164.53 and casualties reported IAW 46 CFR 4.05, before issuing a Letter of Deviation. The COTP or OCMI should require a vessel examination prior to issuing a Letter of Deviation in those cases involving vessels at high risk from a safety perspective. Issuance of a Letter of Deviation does not preclude the possibility of pursuing civil penalty action and is not an appropriate control action for security deficiencies.

10. *Lesser Administrative/Corrective Measures*. The COTP or OCMI may choose to use lesser administrative or corrective measures for certain security deficiencies. For example, if the Coast Guard finds a vessel with a nondetainable (or not subject to denial of entry or expulsion) security deficiency and the vessel corrects the deficiency to the satisfaction of the PSCO before the vessel experiences any delay, a lesser corrective measure has occurred. Such measures are not considered reportable control actions under SOLAS Chapter XI-2 and do not need to be reported to the flag administration.

Administrative Enforcement Measures (apply to both security and safety violations).

1. *Civil Penalty Adjudication*. The COTP or OCMI should initiate civil penalty proceedings for all major noncriminal violations, for repeat offenses, and any minor violations not corrected prior to returning to a U.S. port. Penalty amounts are determined by the circumstances under which the violation occurred; seriousness of the violation; culpability of the party; prior history of similar violations, and economic benefit of noncompliance to the responsible party.

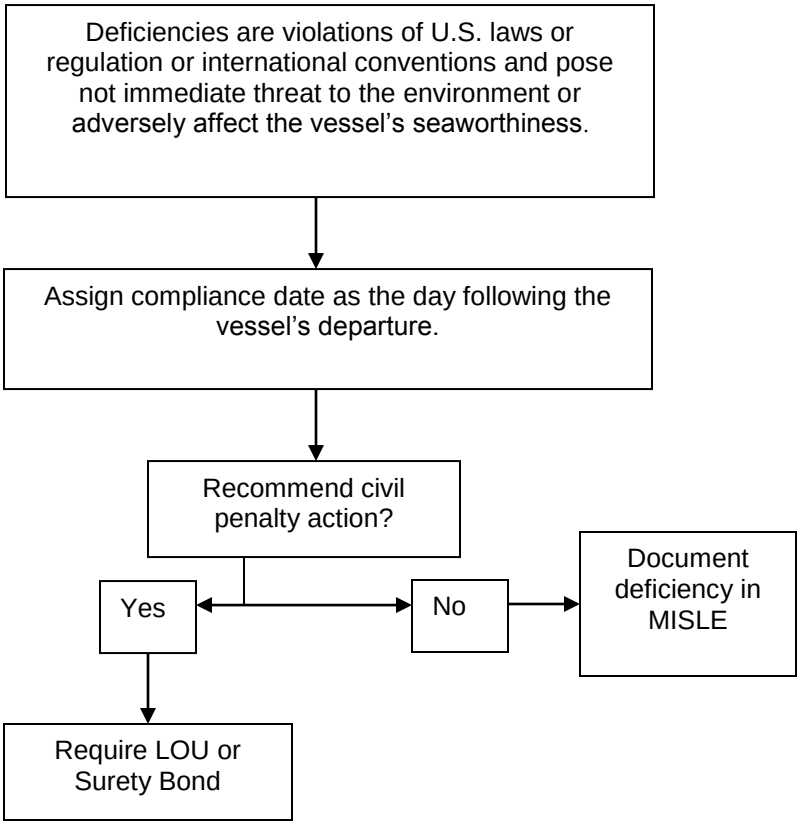
2. *Civil Penalty*. The COTP or OCMI may process a civil penalty case for violations of U.S. laws or regulations. Civil Penalty provisions for violations of the MTSA are located in 33 CFR Subchapter H. The COTP or OCMI should pursue penalty enforcement in all cases against those involved parties that are in the best position to bring about compliance and those who can best deter future violations.

3. *Letter of Warning*. This correspondence is appropriate for minor first-time violations that vessel operators correct immediately. The discovery of administrative errors in dangerous cargo manifests is an example of a minor violation. However, a history in MISLE of continuing violations indicates the need for more stringent enforcement actions. The COTP or OCMI may issue a Letter of Warning to all parties (owner/operator/agent) involved with a vessel.

The flowcharts on the following pages contain information gleaned from the Marine Safety Manual Volume II, Chapter D2. The port state control officer should be familiar with this chapter as well as the information pertaining to Port State Control examinations contained in MSM Volume II, Chapters D1 - Foreign Vessel Exams (General), D5 - Foreign Vessel Exams (Freight), and D4 - Targeting of Foreign Vessel Boarding's.

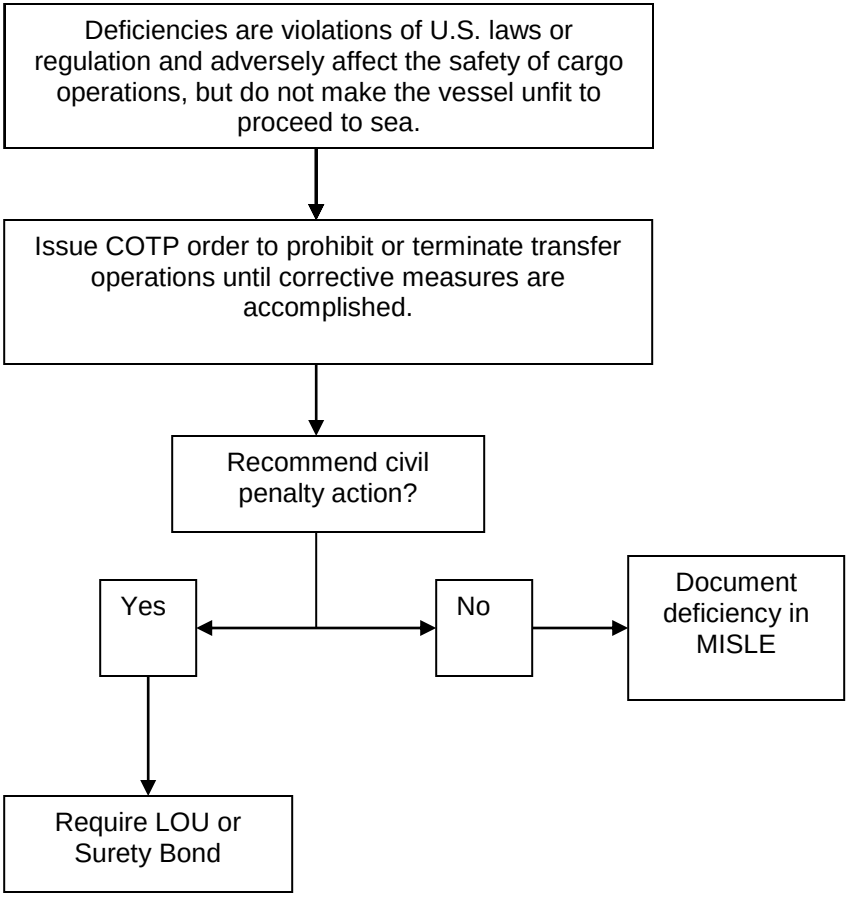
Corrective Measures Required Prior to Return to U.S.

(NO DETENTION)



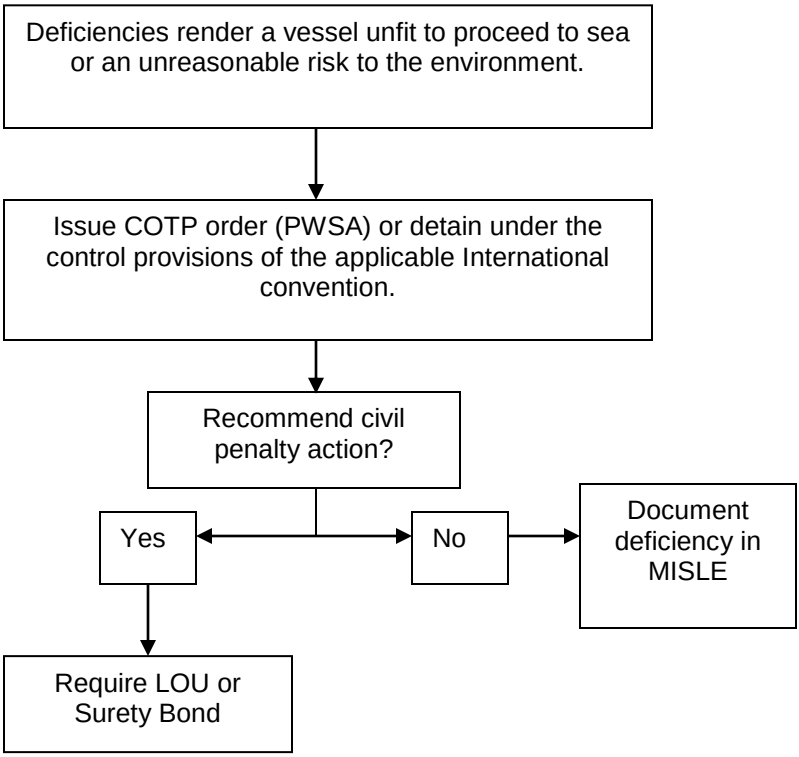
Requiring Corrective Measures Prior to Cargo, Bunkering, or Lightering Operations

(NO DETENTION)



Requiring Corrective Measures Prior to Departure

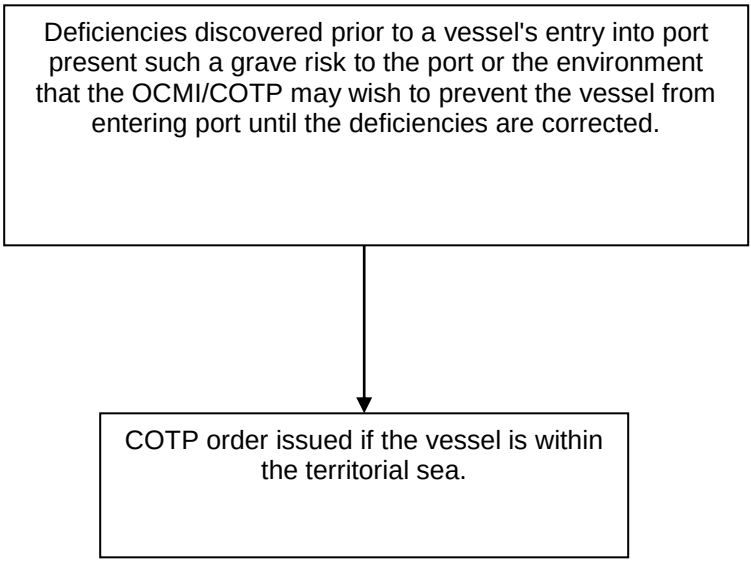
(DETENTION)



Examples include the following:

- Excessive wastage corrosion, pitting, holes, or damage to the hull, cargo hatches, fire main, or other vital system.
- Inoperable emergency fire pump or emergency generator.
- Inability to lower lifeboats.
- Inoperable lifeboat motors (i.e., fire or boat drills, cargo transfer, stability calculations, etc.).
- Licenses invalid.
- Safe Manning Document not on board.

Requiring Corrective Measures Prior to Entry



Examples include the following:

- Leaking tanks.
- Carrying dangerous cargoes with expired documents.
- Carrying incompatible cargoes.
- Invalid ISM certificates.
- COFR not on board.

Conversions:

Distance and Energy

Kilowatts (kW)	X	1,341	=	Horsepower (hp)
Feet (ft)	X	3.281	=	Meters (m)
Long Ton (LT)	X	.98421	=	Metric Ton (t)

Liquid (NOTE: Values are approximate.)

Liquid	bbl/LT	m^3/t	bbl/m^3	bbl/t
Freshwater	6.40	1.00	6.29	6.29
Saltwater	6.24	.975	6.13	5.98
Heave Oil	6.77	1.06	6.66	7.06
DFM	6.60	1.19	7.48	8.91
Lube Oil	7.66	1.20	7.54	9.05

Weight

1 Long Ton	= 2240 lbs	1 Metric Ton	= 2204 lbs
1 Short Ton	= 2000 lbs	1 Cubic Foot	= 7.48 gal
1 Barrel (oil)	= 5.61 ft =42 gal =6.29	1 psi	=.06895 Bar = 2.3106 ft of water

Temperature: Fahrenheit = Celsius (F= 9/5 C+32 and C=5/9 (F-32))

0	=	-17.8	80	=	26.7	200	=	93.3
32	=	0	90	=	32.2	250	=	121.1
40	=	4.4	100	=	37.8	300	=	148.9
50	=	10.0	110	=	43.3	400	=	204.4
60	=	15.6	120	=	48.9	500	=	260
70	=	21.1	150	=	65.6	1000	=	537.8

Pressure:

1 Bar	=	14.5 psi	5 Bars	=	72.5 psi	9 Bars	=	130.5 psi
2 Bars	=	29.0 psi	6 Bars	=	87.0 psi	10 Bars	=	145.0 psi
3 Bars	=	43.5 psi	7 Bars	=	101.5 psi		=	
4 Bars	=	58.0 psi	8 Bars	=	116.0 psi		=	

Typical Arrangement for IG System

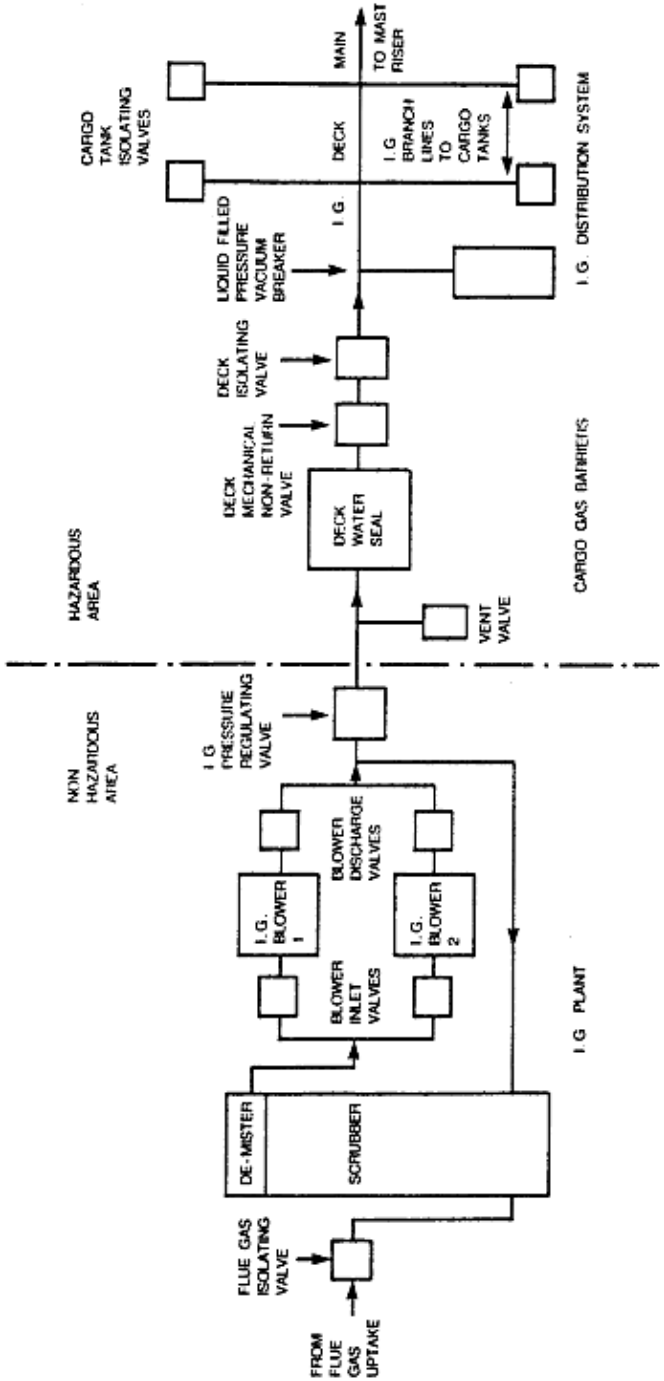
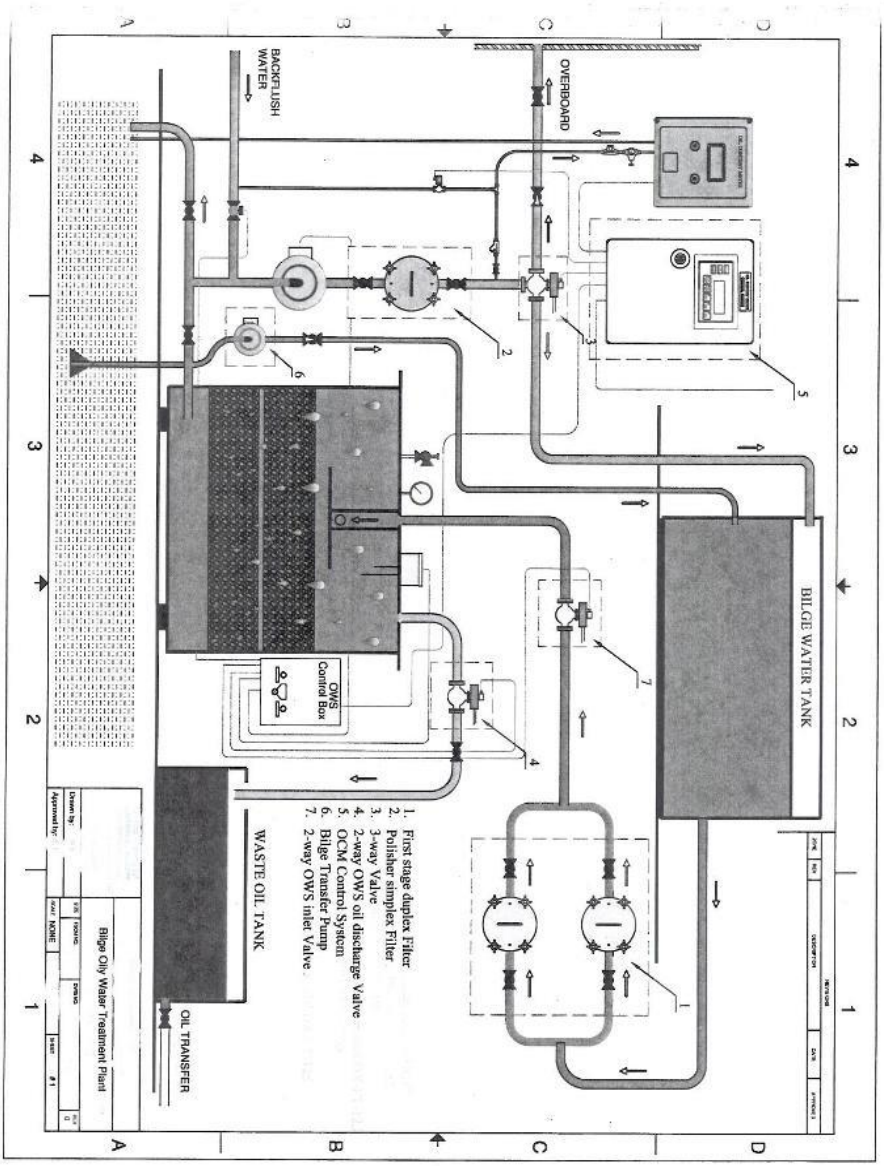


Figure 6 A typical arrangement for an inert gas system

Example of an Oil Water Separator Arrangement



NOTES: