

Deck General – Safety

Pollution Control And Preventio

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U.S. regulations require all tankships of 150 GT and above and all other ships of 400 GT and above, to prepare and maintain which of the following?

a USCG approved shipboard oil pollution emergency plan

Illustrations: TABLE_151_26_A, TABLE_151_26_B
See REF315

According to Coast Guard Regulations (CFR 33), the shipboard Oil Pollution Emergency Plan must include _____.
an explanation and purpose of the plan

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You are at sea and not in a special area as defined in ANNEX V of MARPOL. How many nautical miles from land must you be to discharge ground garbage that will pass through a one-inch (25 mm) screen into the sea?

3 nm

Illustrations: MARPOL GARBAGE CHART 151.51
See REF315

At what distance from shore may plastic material may be thrown overboard from a vessel?

25 miles from shore

3 miles from shore

12 miles from shore

None of the above are correct.

Illustrations: MARPOL
See REF315

Which substance is NOT considered to be "Oil" under the pollution prevention regulations?

Oil mixed with dredge spoil

See REF136

The pollution prevention regulations in MARPOL apply to U. S. flag vessels _____.

on all international and inland waters

See REF315

Providing you are not sailing in the Red Sea or another special area as listed in ANNEX V of MARPOL, how many miles from land must you be to throw garbage including bottles, rags, and glass that has not been ground up into the sea?

12 nm

See REF315

A vessel to which Annex V to MARPOL 73/78 applies is 24 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged?

Dunnage

See REF315

Shipboard Oil Pollution Emergency Plans must be reviewed _____.

annually by the owner, with a letter submitted to the Coast Guard within one month of the anniversary date of the plan approval

See REF315

Pollution of the waterways may result from the discharge of _____.

the galley trash can

sewage

an oily mixture of one part per million

All of the above.

See REF315

For the purposes of cargo oil containment, the fixed container under the manifold of an eight-inch loading line must hold a minimum of _____.

three barrels

See REF322

Fueling results in the collection of waste oil in drip pans and containers. Which is an approved method of disposing of the waste oil?

Placing it in proper disposal facilities

The transfer procedures required to be followed on tankships shall contain _____.

a line diagram of the vessel's transfer piping

See REF328

The person in charge on the vessel and the person in charge at the facility must hold a meeting before starting the transfer of oil. Who must decide to start the transfer?

Both persons in charge

According to U.S. regulations, which of the following describes the declaration of inspection?

document signed by vessel and shore facility persons-in-charge declaring that all transfer requirements have been met

See REF100

What does the term "oil" as used in the Oil Pollution Regulations mean?

oil refuse

fuel oil

sludge

All of the above.

See REF136

Which vessel in ocean service is not subject to Annex V of MARPOL 73/78?

A Navy Destroyer

See REF315

You intend to discharge medical or hazardous wastes ashore. MARPOL Annex V requires you to notify a receiving port or terminal in advance. How much advance notice is required?

24 hours

See REF315

A vessel to which Annex V to MARPOL 73/78 applies is located 10 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged?

Food waste, not comminuted or ground

See REF315

A ship that, at any time, operates seaward of the outermost boundary of the territorial sea is required to prepare, submit, and maintain a(n) _____.

shipboard oil pollution emergency plan

See REF315

The preferred type of pollution control for oil spills on the water is(are) _____.

booms

See REF315

Which statement is TRUE concerning the placard entitled "Discharge of Oil Prohibited"?

It must be located at the bilge and ballast pump control station.

See REF323

You are operating a non-ocean going vessel, how much of the accumulated oily waste must you be able to retain on board?

100%

See REF326

Before operating a non-oceangoing ship greater than 100 gross tons it must have a fixed piping system to discharge oily mixtures ashore. This system must include _____.

at least one outlet accessible from the weather deck

Who completes the Declaration of Inspection before loading a tank vessel?

The person(s) designated in-charge

See REF084

According to the Pollution Prevention Regulations (33 CFR), who makes the final decision of when oil transfer may begin?

The designated person-in-charge

See REF076

A tankerman who permits or causes oil to go into a navigable waterway may be federally punished with which of the following?

imprisonment

fine

suspension or revocation of tankerman's document

All of the above.

See REF136

The regulations that were passed to implement MARPOL 73/78 concerning oil pollution apply to a U.S. flag vessel that sails on which waters?

International waters

See REF315

If Annex V to MARPOL 73/78 applies to your vessel, which of the following cannot be discharged anywhere at sea?

plastic

See REF315

What is the MINIMUM distance a vessel subject to the requirements of Annex V to MARPOL 73/78 must be located from nearest land to legally discharge paper trash?

12 nautical miles

See REF315

Which of the following operations aboard a tanker must be recorded in the Oil Record Book on a tank-to-tank basis according to U.S. Regulations?

Any internal transfer of oil cargo during a voyage.

The discharge overboard in port or at sea of any bilge water accumulated in machinery spaces.

The loading or unloading of any or all oil cargo.

All of the above.

See REF315

When oil is accidentally discharged into the water, what should you do after reporting the discharge?

Contain the oil and remove as much of it as possible from the water.

See REF315

Who may serve as the "person in charge" of loading and discharge operations aboard a tankship?

A credentialed officer who holds a tankerman-PIC endorsement

A vessel in ocean service that does not have an approved means of processing oily bilge slops or oily ballast must have _____.

a fixed piping system for ballast discharge to a reception facility

You are operating an ocean-going vessel of 322 gross tons. If your vessel does NOT have an oily-water separator then she must have a fixed piping system to discharge oily ballast to a shore facility. This system must include _____.

a means to stop each pump near the discharge outlet

See REF329

How long must the operator of each vessel engaged in a vessel-to-vessel oil transfer operation keep a signed copy of the declaration of inspection for?

1 month

See REF332

What type of information is found in 33 CFR part 156?

oil and hazardous material transfer operations

When cleaning up an oil spill in U.S. waters you must obtain the approval of the Federal On-Scene Coordinator before using which of the following?

chemical agents

See REF136

A U.S. merchant vessel in ocean service is NOT subject to the requirements of Annex V to MARPOL 73/78 _____.

A U.S. vessel in ocean service is ALWAYS subject to MARPOL.

See REF315

No person on board any vessel to which Annex V to MARPOL 73/78 applies may discharge garbage of any type when _____.

in the navigable waters of the United States

See REF315

Vessels to which Annex V to MARPOL 73/78 applies may discharge garbage containing plastics _____.

12 nautical miles from nearest land

5 nautical miles from nearest land

25 nautical miles from nearest land

None of the above

See REF315

Which vessel is required to have a shipboard oil pollution emergency plan?

an oil tanker of 150 gross tons or above, or other ship of 400 gross tons or above

See REF315

Which statement is TRUE of a gasoline spill?

It is visible for a shorter time than a fuel oil spill.

See REF315

Which vessel is NOT required to have a Pollution Placard posted on board?

215-foot naval auxiliary vessel

What must ocean going vessels of 100 GT to 400 GT be fitted with for oily mixtures?

A fixed system to discharge oily mixtures to a reception facility

You are operating a ship greater than 400 gross tons. You are NOT permitted to carry oil or hazardous materials in a(n)

_____.

forepeak tank

See REF330

Who must sign the Declaration of Inspection made before oil transfer operations?

person(s) in charge

Which of the following applies in determining if all requirements of the Declaration of Inspection are met for oil transfer operations prior to bunkering from a shoreside facility?

vessel and bunker facility must be independently inspected by the designated persons-in-charge

If you fail to notify the Coast Guard of an oil spill, how long may be imprisoned for?

5 years

See REF136

Which international body is responsible for drafting the convention prohibiting marine pollution (MARPOL)?

International Maritime Organization

See REF315

According to Annex V to MARPOL 73/78, garbage containing plastic is permitted to be disposed of by _____.

incinerating offshore

See REF315

What product is considered a noxious liquid substance for regulatory purposes?

Octanol

See REF315

International Oil Pollution Prevention (IOPP) Certificates are required for each U.S. oil tanker at or above how many gross registered tons?

150 gross registered tons

See REF315

Which statement is TRUE concerning small oil spills?

They may cause serious pollution as the effect tends to be cumulative.

See REF315

To serve as a person in charge of transfer operations on board a self-propelled tank vessel, an individual must hold/be which of the following?

a tankerman-PIC endorsement

See REF324

If you must pump bilges while a vessel is in port, you should pump only _____.
if discharge is led to a shore tank or barge

The the U.S. regulations require an emergency means of stopping the flow of oil during oil transfer operations. Where must these emergency means be operable from?
usual operating station of the person-in-charge

Hoses used for cargo transfer operations must be tested and inspected at specified intervals by _____.
the operator of the vessel or facility
See REF335

What shall the transfer procedures required to be followed on tankships contain?
a line diagram of the vessel transfer piping
See REF337

The Federal Water Pollution Control Act requires the person in charge of a vessel to immediately notify the Coast Guard as soon as he knows of any oil discharge. Failure to notify the Coast Guard can lead to a monetary fine and imprisonment up to _____.
5 years
See REF136

While operating your oceangoing vessel you must keep a record of any discharge or disposal of garbage. When should these entries be made?
at the time the garbage was disposed
See REF315

A vessel to which Annex V to MARPOL 73/78 applies is located in a MARPOL designated special area, 14 nautical miles from nearest land. What type of garbage is permitted to be discharged?
Food waste
See REF315

What product is considered a noxious liquid substance for regulatory purposes?
Latex
See REF315

Remote controls for quick-closing shut off valves are required in how many location(s)?
2
See REF020

Most minor spills of oil products are caused by _____.
human error
See REF315

Which of the following best describes the requirement of the emergency pump control when used as the emergency shutdown on tank vessels?
prevent the oil from siphoning through the pump
See REF325

What must Inland vessels of 100 GT and over be fitted with for oily mixtures?
A fixed system to discharge oily mixtures to a reception facility

Which of the following must be included in the "oil transfer procedures" required by U.S Pollution Prevention Regulations?
any special procedures inherent to that particular vessel for topping off tanks
See REF328

During the annual inspection by the owner, each nonmetallic oil transfer hose must not burst, bulge, leak, or abnormally distort under static liquid pressure of at least _____.

1½ times the maximum allowable working pressure

According to the U.S. regulations, what must be agreed upon by the person-in-charge of transfer operations, both ashore and on the vessel?

the identity of the product to be transferred

The use of sinking and dispersing chemical agents for removal of surface oil is _____.

authorized only with prior approval of the Federal On-Scene Coordinator

See REF136

Under the Pollution Regulations, how long must garbage disposal records be retained onboard for?

two years

See REF315

Which area is designated a special area by Annex V to MARPOL 73/78?

Red Sea

See REF315

What product is considered a noxious liquid substance for regulatory purposes?

Dodecanol

See REF315

According to the regulations, what fire safety control feature is required in quick-closing shut off valves?

A fusible link

See REF315

A cargo hose is marked with which of the following?

maximum working pressure

What can be done to prevent small oil spills on deck from going overboard?

plugging the scuppers

Fuel for use on a vessel (300 GT or more constructed before July 1, 1974) may be carried in independent tanks forward of a collision bulkhead if the _____.

tanks were designated, installed, or constructed for fuel oil carrying before July 1, 1974

See REF162

An individual must be which of the following to serve as the person in charge of oil cargo transfer operations onboard a self-propelled tank vessel?

be a certified tankerman (PIC)

You are inspecting the nonmetallic oil transfer hoses on the vessel you operate. The maximum allowable pressure of the hose is 70 psi. Your inspection confirms the hose did not burst, bulge, leak or abnormally distort under the required static liquid pressure of _____.

105 psi

According to Pollution Prevention Regulations (33 CFR), when may a person serve as the person-in-charge of both a vessel and a facility during oil transfer operations?

When authorized by the Captain of the Port.

See REF338

It is generally NOT allowed to clean up an oil spill by using _____.

chemical agents

See REF136

Which statement is TRUE?

You must keep a record of garbage discharged in port to a shore facility.

See REF315

Under Annex V to MARPOL 73/78, garbage discharged from vessels that are located between 3 and 12 nautical miles from nearest land must be ground to less than _____.

1"

See REF315

What product is considered a noxious liquid substance for regulatory purposes?

Nonane

See REF315

How is the minimum bursting pressure for each cargo hose assembly determined?

four times the sum of the relief valve setting and the static head

See REF320

What do pollution regulations require of each scupper in an enclosed deck area?

mechanical means of closing

What would you consult to determine the number of persons required on duty while loading a cargo of leaded gasoline on your tanker?

Oil Transfer Procedures Manual

Your vessel is at a dock taking bunkers. If oil begins to flow out of a tank vent, what should you do FIRST?

Signal the shore control point to shut down.

33 CFR 156 deals with matters concerning _____.

oil and hazardous material transfer operations

During oil transfer operations, who would be responsible to guarantee that the posted transfer procedures are being followed?

The designated person in charge

See REF104

As soon as the officer in charge of the vessel has taken steps to stop the discharge of oil or oily mixture into a U.S. harbor, what must he do FIRST?

Call the Coast Guard.

See REF136

Under the Pollution Regulations, which action is required when you dump garbage in to the sea?

keep a record for two years

See REF315

No vessel may use or carry an oil transfer hose unless it meets certain requirements. Which of the following is NOT among those requirements?

Metallic reinforcement

See REF321

Your vessel is carrying 24,000 barrels of oil for discharge. The cargo hoses have an inside diameter of eight inches. The container around the loading manifold must hold _____.

three barrels

What is NOT required to be contained in the oil transfer procedures?

The location and capacity of all fuel and cargo tanks on the vessel

While your vessel is taking on fuel you notice oil on the water around the vessel. What should you do FIRST?

Stop the fueling.

Who has the authority to grant an alternate procedure for oil transfer operations?

Captain of the Port

U.S. regulations require that no person may transfer oil to or from a vessel unless which of the following criteria are met?

all necessary components of the transfer system are lined up before the transfer begins

See REF081

When authorized to use chemical agents on an oil spill they would _____.

facilitate the removal of the pollutant from the water

See REF136

You are offloading garbage to another ship. Your records must identify that ship by name and show her _____.

official number

See REF315

You are in the North Sea, which is a special area listed in ANNEX V of MARPOL. How many miles from land must you be to throw broken plywood dunnage over the side?

Must be retained aboard

See REF315

Which of the following vessels is NOT exempt from mandatory requirements on ballast water management for control of non-indigenous species in waters of the United States?

A vessel engaged in the foreign export of Alaskan North Slope Crude Oil.

See REF315

According to U.S. regulations, normally, where are manholes in LFG located?

above the weather deck

A 100-GT vessel, constructed before July 1, 1974, is loading diesel fuel. What is the minimum capacity of the drip pans required for placement under or around each fuel tank vent, overflow, and fill pipe?

5 gallons

The oil transfer procedures aboard a tanker transferring oil are NOT required to contain _____.

the name of each person designated as the person in charge of transfer

See REF327

If you observe any situation which presents a safety or pollution hazard during fuel transfer operations, what action should you take FIRST?

Shut down the transfer operation

Application for a waiver of any requirements of the regulations for oil transfer operations must be submitted to the _____.

Captain of the Port

To allow for the rise or fall in tide and for change in draft of a tankship during cargo transfer, cargo hoses must be suspended with _____.

enough slack in their bight

See REF339

In cleaning up an oil spill, straw is an example of a _____.

sorbent

See REF136

Your oceangoing vessel is required to have a waste management plan. This plan must be in writing and describe procedures for _____.

collecting and discharging garbage

See REF315

How is the Master or operator of a vessel required to keep the crew informed of the regulations concerning the discharging of garbage overboard?

Keep placards prominently posted.

See REF315

Which is a mandatory section of the shipboard Oil Pollution Emergency Plan?

Reporting requirements

See REF315

What does the term, "cargo tank length", as used in part 157 of the Pollution Regulations, mean?

length from the forward bulkhead of the forwardmost cargo tanks to the after bulkhead of the aftermost cargo tanks

See REF315

According to the regulations, what type of gauging is required for a cargo of butadiene?

Restricted

Your vessel is carrying 84,000 barrels of oil for discharge. The cargo hoses have an inside diameter of 14 inches. When four hoses are connected to the manifold, the container around the manifold must hold a total of how many barrels?

Four

Where are the transfer procedures for oil products are required to be posted?

where they can be easily seen or readily available

You may not act as person-in-charge of oil transfer operations on more than one vessel at a time _____.

unless authorized by the Captain of the Port

See REF331

How far in advance must applications for waivers of any requirements of the regulations for oil transfer operations be submitted?

30 days before the operations

According to U.S. regulations, if a cargo hose shows a small leak in its fabric, when may it be used to transfer oil?

never the hose must be replaced

After making the required notification that a large oil spill into the water has occurred, what is the FIRST action that should be taken?

contain the spread of the oil

See REF136

You are keeping the required garbage disposal records. The amount of garbage disposed must be stated in _____.

cubic meters

See REF315

Which list is NOT required to be provided as part of the appendices of the Shipboard Oil Pollution Emergency Plan?

A list of personnel duty assignments.

See REF315

A oil tanker may not discharge an oily mixture into the sea from a cargo tank, slop tank, or cargo pump room bilge unless which of the following conditions is present?

discharging at an instantaneous rate of oil content not exceeding 30 liters per nautical mile

See REF315

According to regulations, a cargo hose used for transferring liquefied gases must have a bursting pressure of _____.

5 times the maximum working pressure on the hose during cargo transfer

You are preparing to load fuel oil on a vessel of 300 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.

have containment capacity for at least one half barrel

During oil transfer operations, who is responsible for ensuring that the posted transfer procedures are followed?

The designated person in charge

See REF104

How long must a "Declaration of Inspection" be kept on board?

One month

See REF332

Each pressure gauge used in an oil transfer operation must be accurate to within _____.

10 percent

See REF102

According to U.S. regulations, how often are you required to test cargo discharge piping?

12 months

See REF340

Which would be considered pollution under the U.S. water pollution laws?

Hazardous substances

Garbage

Oil

All of the above.

See REF315

You discharge garbage overboard at sea. When recording your vessel's position as required, you must include

latitude, longitude, and estimated distance from shore

See REF315

Providing you are not in a special area, such as the Mediterranean or Red Sea, how many nautical miles from land must you be to throw wooden dunnage into the sea?

25 nm

See REF315

When amendments are made to the shipboard oil pollution emergency plan, all revisions must be submitted to the Coast Guard _____.

and cannot be implemented without approval

See REF315

Which type of marine sanitation device (MSD) is used solely for the storage of sewage and flush water at ambient air pressure and temperature?

Type III

See REF319

According to U.S. regulations what is the maximum allowable working pressure (MAWP) for each hose assembly used for transferring oil?

more than the sum of the pressure of the relief valve setting

You are preparing to load fuel oil on a vessel of 1,600 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.

have containment capacity for at least one barrel

The operator of a vessel subject to the pollution regulations shall keep a written record available for inspection by the COPT or OCMI. What will this record contain?

**the name of each person currently designated as a person in charge
hose information including the minimum design burst pressure for each hose
the date and result of the most recent test on the system relief valves
All of the above.**

How long shall the operator of a vessel employed in the transferring of oil to other vessels keep the Declaration of Inspection of those transfers?

1 month from date of signature

See REF333

What is the minimum number of bolts required in a temporary bolted flange oil hose coupling?

4

See REF336

According to U.S. regulations, when a tank vessel is discharging cargo, each sea suction valve connected to the vessel's oil transfer, ballast, or cargo tank systems must be which of the following?

sealed or lashed closed

Which of the following is considered graywater on a vessel?

Drainage from a dishwasher

See REF315

Which statement is TRUE?

You must keep a record of garbage discharged in port to a shore facility.

See REF315

Your oceangoing vessel has medical waste to be disposed of ashore. How many hours advance notice must you give the port or terminal?

24

See REF315

Which of the following is required to have a Shipboard Oil Pollution Emergency Plan?

an oil tanker of 150 gross tons and above, or other ship of 400 gross tons and above

See REF317

REF136

33 CFR 153.103 Definitions. As used in this part: (a) Act means the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.). (b) CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.). (c) Chemical agents means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or removal of the pollutant from the water. The term “chemical agents” as used in this part includes dispersants, surface collecting agents, biological additives, burning agents, and sinking agents as defined in Subpart H of the National Contingency Plan. (d) Assistant Commandant for Marine Safety, Security and Environmental Protection means the Coast Guard Officer designated by the Commandant to assist and advise the Commandant on matters related to marine environmental response, port and environmental safety, and waterways management. (e) Coastal waters means all U.S. waters subject to the tide, U.S. waters of the Great Lakes, specified ports and harbors on the inland rivers, waters of the contiguous zone, or other waters of the high seas subject to discharges in connection with activities under the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et seq.) or the Deepwater Port Act of 1974 (33 U.S.C. 1501 et seq.), or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.)). These waters include those contained within the Exclusive Economic Zone declared by Presidential Proclamation 5030 on March 10, 1983 (43 FR 10605). NOTE: Coastal waters are those waters where the Coast Guard has the responsibility for providing On-Scene Coordinators under the National Contingency Plan. Specific dividing lines between coastal and inland waters, and the identification of specified ports and harbors on inland rivers, are contained in Regional Contingency Plans prepared pursuant to the National Contingency Plan. (f) Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone, as published in the June 1, 1972 issue of the FEDERAL REGISTER (37 FR 11906). (g) Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping, but excludes (A) discharges in compliance with a permit under Section 402 of the Act, (B) discharges resulting from circumstances identified and reviewed and made part of the public record with respect to a permit issued or modified under Section 402 of the Act, and subject to a condition in such permit, and (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the Act, which are caused by events occurring within the scope of relevant operating or treatment systems. (h) Hazardous substance means any substance designated by the Administrator of the Environmental Protection Agency pursuant to section 311(b)(2) of the Act. (i) Inland waters means all other waters of the U.S. not included in the definition of coastal waters. NOTE: Inland waters are those waters where the Environmental Protection Agency has the responsibility for providing On-Scene Coordinators under the National Contingency Plan. Specific dividing lines between coastal and inland waters are contained in Regional Contingency Plans prepared pursuant to the National Contingency Plan. (j) Mechanical removal means the use of pumps, skimmers, booms, earthmoving equipment, and other mechanical devices to contain the discharge of oil and to recover the discharge from the water or adjoining shorelines. (k) Navigable waters means the waters of the United States as defined in paragraph 2.36(b) of this Chapter. (l) Offshore facility means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel. (m) Oil means oil of any kind or in any form, including but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. (n) On-Scene Coordinator or OSC is the Federal official predesignated by the Environmental Protection Agency (EPA) or Coast Guard to coordinate and direct Federal removal efforts at the scene of an oil or hazardous substance discharge as prescribed in the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan) as published in 40 CFR Part 300. (o) Onshore facility means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land. (p) Person includes an individual, firm, corporation, association, and a partnership. (q) Pollution Fund and Fund means the revolving fund established in the Treasury under the authority in section 311(k) of the Act to carry out the provisions of section 311 (c), (d), (i), and (l) of the Act. (r) Public vessel means a vessel owned or bare-boat chartered and operated by the United States, or by a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce. (s) Remove or Removal refers to removal of oil or hazardous substances from the waters and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches. (t) Sorbent means materials essentially inert and insoluble used to remove oil from water through a variety of sorption mechanisms. Examples include straw, expanded perlite, polyurethane foam, reclaimed paper fibers, and peat moss. (u) Such quantities as may be harmful means those quantities of oil and any hazardous substances determined in accordance with the provisions of section 311(b)(4) of the Act. NOTE: Regulations that relate to such quantities as may be harmful of oil are published in 40 CFR Part 110. Regulations that relate to such quantities as may be harmful (reportable quantities) of hazardous substances are published in 40 CFR Part 117 and also listed in 40 CFR Part 302. (v) United States means the States, the District of Columbia, the Commonwealth of Puerto Rico,

Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands. (w) Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel. [CGD 84-067, 51 FR 17965, May 16, 1986, as amended by CGD 88-052, 53 FR 25121, July 1, 1988; CGD 96-026, 61 FR 33665, June 28, 1996; CGD 97-023, 62 FR 33363, June 19, 1997; USCG-2002-12471, 67 FR 41333, June 18, 2002; USCG-2008-0179, 73 FR 35014, June 19, 2008]

REF162

The collision bulkhead is the forward-most bulkhead.

REF315

33 CFR 151.19 (a) (b)

REF316

159.311 Safety exception. The regulations in this subpart shall not apply to discharges made for the purpose of securing the safety of the cruise vessel or saving life at sea, provided that all reasonable precautions have been taken for the purpose of preventing or minimizing the discharge.

REF317

Shipboard oil pollution emergency plan means a plan prepared, submitted, and maintained according to the provisions of §§151.26 through 151.28 of this subpart for United States ships or maintained according to the provisions of §151.29(a) of this subpart for foreign ships operated under the authority of a country that is party to MARPOL 73/78 or carried on board foreign ships operated under the authority of a country that is not a party to MARPOL 73/78, while in the navigable waters of the United States, as evidence of compliance with §151.21 of this subpart.

REF318

CFR 33 151.28 Plan review and revision. (a) An owner or operator of a ship to which this subpart applies must review the shipboard oil pollution emergency plan annually and submit a letter to Commandant (CG-5431) certifying that the review has been completed. This review must occur within 1 month of the anniversary date of Coast Guard approval of the plan. (b) The owner or operator shall submit any plan amendments to Commandant (CG-5431) for information or approval. (c) The entire plan must be resubmitted to Commandant (CG-5431) for reapproval 6 months before the end of the Coast Guard approval period identified in § 151.27(e) of this subpart. (d) A record of annual review and changes to the plan must be maintained in the last appendix of section six of the plan. (e) Except as provided in paragraph (f) of this section, revisions must receive prior approval by the Coast Guard before they can be incorporated into the plan. (f) Revisions to the seventh section of the plan and the appendices do not require approval by the Coast Guard. The Coast Guard shall be advised and provided a copy of the revisions as they occur. [CGD 93-030, 59 FR 51342, Oct. 7, 1994, as amended by CGD 96-026, 61 FR 33665, June 28, 1996; USCG-2008-0179, 73 FR 35014, June 19, 2008]

REF319

Type I : Incorrect answer. A type I MSD is one that through treatment of the sewage produces an effluent (pumped overboard) having a fecal coliform bacteria count not greater than 1,000 per 100 milliliters and visible floating solids. Type II : Incorrect answer. A type II MSD is one that through treatment of the sewage produces an effluent (pumped overboard) having a fecal coliform bacteria count not greater than 200 per 100 milliliters and suspended solids not greater than 150 milligrams per liter. Type III : Correct answer. A type III MSD is one that is designed to prevent the overboard discharge of treated or untreated sewage or waste derived from sewage. This type of device requires the storage of all sewage and waste onboard. Type IV : Incorrect answer. A type IV MSD does not exist.

REF320

33 CFR PART 154.500

REF321

33 CFR 154.500

REF322

155.310 Containment of oil and hazardous material cargo discharges.

REF323

33 CFR 155.450 Placard. (a) A ship, except a ship of less than 26 feet in length, must have a placard of at least 5 by 8 inches, made of durable material fixed in a conspicuous place in each machinery space, or at the bilge and ballast pump

control station, stating the following: DISCHARGE OF OIL PROHIBITED The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States, or the waters of the contiguous zone, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, if such discharge causes a film or discoloration of the surface of the water or causes a sludge or emulsion beneath the surface of the water. Violators are subject to substantial civil penalties and/or criminal sanctions including fines and imprisonment. (b) Existing stocks of placards may be used for the life of the placard. (c) The placard required by paragraph (a) or (b) of this section must be printed in the language or languages understood by the crew. [CGD 75-124a, 48 FR 45715, Oct. 6, 1983, as amended by CGD 93-054, 58 FR 62262, Nov. 26, 1993]

REF324

33 CFR 155.710(a)(2) 155.710 Qualifications of person in charge.

REF325

Reference: 33 CFR 155.780. "If an emergency pump control is used, it must stop the flow of oil or hazardous material if the oil or hazardous material could siphon through the stopped pump. A.) Stop the flow of oil at the main deck manifold Incorrect B.) Prevent the oil from leaving the shore facility Incorrect C.) Prevent the oil from siphoning through the pump Correct 33 CFR 155.780 Emergency shutdown. (a) A tank vessel with a capacity of 250 or more barrels that is carrying oil or hazardous material as cargo must have on board an emergency means to enable the person in charge of a transfer operation to a facility, to another vessel, or within the vessel to stop the flow of oil or hazardous material. (b) The means to stop the flow may be a pump control, a quick-acting, power actuated valve, or an operating procedure. If an emergency pump control is used, it must stop the flow of oil or hazardous material if the oil or hazardous material could siphon through the stopped pump. (c) The means to stop the flow must be operable from the cargo deck, cargo control room, or the usual operating station of the person in charge of the transfer operation. [CGD 86-034, 55 FR 36255, Sept. 4, 1990] D.) None of the above Incorrect

REF326

33 cfr 155.330 Oily mixture (bilge slops)/fuel oil tank ballast water discharges on U.S. non-oceangoing ships. (a) No person may operate a U.S. non-oceangoing ship in the navigable waters of the United States, unless it has the capacity to retain on board all oily mixtures and is equipped to discharge these oily mixtures to a reception facility. (b) A U.S. non-oceangoing ship may retain all oily mixtures on board in the ship's bilges. An oil residue (sludge) tank is not required. (c) This section does not apply to a fixed or floating drilling rig or other platform.

REF327

33 CFR 155.750 Contents of transfer procedures. (a) The transfer procedures required by § 155.720 must contain, either in the order listed or by use of a cross-reference index page: (1) A list of each product transferred to or from the vessel, including the following information: (i) Generic or chemical name; (ii) Cargo information as described in § 154.310(a)(5)(ii) of this chapter; and (iii) Applicability of transfer procedures; (2) A description of each transfer system on the vessel including: (i) A line diagram of the vessel's transfer piping, including the location of each valve, pump, control device, vent, and overflow; (ii) The location of the shutoff valve or other isolation device that separates any bilge or ballast system from the transfer system; and (iii) A description of and procedures for emptying the discharge containment system required by §§ 155.310 and 155.320; (3) The number of persons required to be on duty during transfer operations; (4) The duties by title of each officer, person in charge, tankerman, deckhand, and any other person required for each transfer operation; (5) Procedures and duty assignments for tending the vessel's moorings during the transfer of oil or hazardous material; (6) Procedures for operating the emergency shutdown and communications means required by §§ 155.780 and 155.785, respectively; (7) Procedures for topping off tanks; (8) Procedures for ensuring that all valves used during the transfer operations are closed upon completion of transfer; (9) Procedures for reporting discharges of oil or hazardous material into the water; and (10) Procedures for closing and opening the vessel openings in § 155.815. (11) Statements explaining that each hazardous materials transfer hose is marked with either the name of each product which may be transferred through the hose or with letters, numbers or other symbols representing all such products and the location in the transfer procedures where a chart or list of the symbols used and a list of the compatible products which may be transferred through the hose can be found for consultation before each transfer. (b) Exemptions or alternatives granted must be placed in the front of the transfer procedures. (c) The vessel operator shall incorporate each amendment to the transfer procedures under § 155.760 in the procedures with the related existing requirement, or at the end of the procedures if not related to an existing requirement. (d) If a vessel is fitted with a vapor control system, the transfer procedures must contain a description of the vapor collection system on the vessel which includes: (1) A line diagram of the vessel's vapor collection system piping, including the location of each valve, control device, pressure-vacuum relief valve, pressure indicator, flame arresters, and detonation arresters, if fitted; (2) The location of spill valves and rupture disks, if fitted; (3) The maximum allowable transfer rate determined in accordance with 46 CFR 39.30-1(d) (1) through (d)(3); (4) The initial

transfer rate for each tank that complies with 46 CFR 39.30– 1(h); (5) A table or graph of transfer rates and corresponding vapor collection system pressure drops calculated in accordance with 46 CFR 39.30–1(b); (6) The relief settings of each spill valve, rupture disk, and pressure-vacuum relief valve; and (7) A description of and procedures for operating the vapor collection system, including the: (i) Pre-transfer equipment inspection requirements; (ii) Vapor line connection; (iii) Closed gauging system; (iv) High level alarm system, if fitted; and (v) Independent automatic shutdown system, if fitted. (e) If a cargo tank of a tank vessel is fitted with an overfill device, the transfer procedures must contain a description of the overfill device, including: (1) The tank overfill device system and specific procedures for the person in charge to— (i) Monitor the level of cargo in the tank; and (ii) Shut down transfer operations in time to ensure that the cargo level in each tank does not exceed the maximum amount permitted by § 155.775(b). (2) Pre-transfer overfill device equipment inspection and test requirements. (Approved by the Office of Management and Budget under control number 1625–0030) [CGD 75–124, 45 FR 7175, Jan. 31, 1980, as amended by CGD 88–102, 55 FR 25445, June 21, 1990; CGD 86–034, 55 FR 36254, Sept. 4, 1990; CGD 92–027, 58 FR 39662, July 26, 1993; CGD 90–071a, 59 FR 53291, Oct. 21, 1994; USCG–2006– 25150, 71 FR 39210, July 12, 2006]

REF328

155.750 Contents of transfer procedures.

REF329

An oil water separator (OWS) is a piece of shipboard or in general waste water treatment equipment that separates oil from oily waste water such as bilge water before the waste water is discharged. Bilge water is an almost unavoidable product in ship operations. Bilge water that is generated in proximity to shipboard equipment (such as in the engine room) often contains oil and its direct discharge would result in undesirable transfer of waste oil to the marine environment. By international agreement under the MARPOL convention, most commercial vessels need to be fitted with an oily water separator to remove oil contaminants before bilge water is pumped overboard. Oily water separator equipment has been a shipboard requirement since the 1970s but recently it has become evident that oily water separators have not been as effective as had been assumed, and alleged improper operation of this equipment by crewmembers (sometimes called the magic pipe) has resulted in criminal prosecutions in the United States and to a lesser extent in Europe. There are different technologies that can be used to separate oil from waste water. Most economic are those based on the gravity effect, where oil droplets are separated from the water by floating to the surface due to the difference in viscosity between oil and water. This phenomenon is expressed by Stoke's Law. Other technologies employ membrane filtration, centrifugation, adsorption on active carbon granules, heating, ultrasonic energy, electro-coagulation and chemical methods such as Wet Air Oxidation Zimpro Process. Oil in waste water can be present as free oil, emulsified oil, a chemically stabilized dispersion or molecularly dissolved oil. Oily waste water can also contain suspended solids (silt). Oil water separators can be manufactured for above ground or under ground use or in the case of ships for onboard use. The shell can be made from concrete, steel, stainless steel or GRP. They can contain a single treatment step or a combination thereof. Some manufacturers of oil water separator equipment are: Mercer International (USA), San Dizier Environment (France), Conder Environmental Solutions (UK), and Sulzer Chemtec (Switzerland). Oil water separators can be by-pass separators or full retention separators. By pass separators as the name implies by-pass the treatment step above a certain flow. Full retention oil water separators treat 100% of the flow. Class 1 oil water separators guarantee a maximum of 5 ppm oil in the effluent whereas Class 2 oil water separators guarantee a maximum of 100 ppm oil in the effluent. Common legislative requirements for OWS design are alarm devices and an automatic closure device which is activated when the full oil storage capacity of the oil water separator has been reached.

REF330

46 cfr 155.470 Prohibited spaces. (a) In a ship of 400 gross tons and above, for which the building contract is placed after January 1, 1982 or, in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after July 1, 1982, oil or hazardous material must not be carried in a forepeak tank or a tank forward of the collision bulkhead. (b) A self-propelled ship of 300 gross tons and above, to which paragraph (a) of this section does not apply, may not carry bulk oil or hazardous material in any space forward of a collision bulkhead except: (1) For a ship constructed after June 30, 1974, fuel oil for use on the ship may be carried in tanks forward of a collision bulkhead, if such tanks are at least 24 inches inboard of the hull structure; or (2) For a ship constructed before July 1, 1974, fuel oil for use on the ship may be carried in tanks forward of a collision bulkhead, if such tanks were designated, installed, or constructed for fuel oil carriage before July 1, 1974.

REF331

156.115 Person in charge: Limitations.

REF332

Reference: 33 CFR 156.150(f) "The operators of each vessel and facility engaged in the transfer operation shall retain a signed copy of the declaration of inspection on board the vessel or at the facility for at least 1 month from the date of signature."

REF333

33 CFR 156.150(f) "The operators of each vessel and facility engaged in the transfer operation shall retain a signed copy of the declaration of inspection on board the vessel or at the facility for at least 1 month from the date of signature."

REF334

33 CFR 156.125

REF335

33 CFR 156.170 states: "(a) Except as provided in paragraph (d) of this section, no person may use any equipment listed in paragraph (c) of this section for transfer operations unless the vessel or facility operator, as appropriate, tests and inspects the equipment in accordance with paragraphs (b), (c), and (f) of this section and the equipment is in the condition specified in paragraph (c) of this section."

REF336

156.130 Connection. (a) Each person who makes a connection for transfer operations shall: (1) Use suitable material in joints and couplings to ensure a leak-free seal; (2) Use a bolt in at least every other hole, and in no case less than four bolts, in each temporary bolted connection that uses a flange that meets American National Standards Institute (ANSI) standard flange requirements under §154.500(d)(2) of this chapter; (3) Use a bolt in each hole in each temporary bolted connection that uses a flange other than one that meets ANSI standards; (4) Use a bolt in each hole of each permanently connected flange;

REF337

156.120 Requirements for transfer.

REF338

33 CFR 156.115 Person in charge: Limitations. (a) No person may serve as the person in charge of transfer operations on more than one vessel at a time during transfers between vessels or between two or more vessels and a facility unless authorized by the COTP. (b) No person may serve as the person in charge of both a vessel and a facility during transfer operations unless authorized by the COTP. [CGD 75-124, 45 FR 7177, Jan. 31, 1980, as amended by CGD 86-034, 55 FR 36255, Sept. 4, 1990]

REF339

156.120 Requirements for transfer. A transfer is considered to begin when the person in charge on the transferring vessel or facility and the person in charge on the receiving facility or vessel first meet to begin completing the declaration of inspection, as required by §156.150 of this part. No person shall conduct an oil or hazardous material transfer operation unless: (a) The vessel's moorings are strong enough to hold during all expected conditions of surge, current, and weather and are long enough to allow adjustment for changes in draft, drift, and tide during the transfer operation; (b) Transfer hoses and loading arms are long enough to allow the vessel to move to the limits of its moorings without placing strain on the hose, loading arm, or transfer piping system;

REF340

To ensure integrity and safety, 33 CFR 156.170 requires annual static liquid pressure testing for equipment used in bulk oil and hazardous material transfer operations. Equipment subject to this requirement includes: pipelines, loading arms, manifolds, metallic hoses and non-metallic transfer hoses.