

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Center

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Washington, DC 20593-7430
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CHEMICAL TANK VESSEL INFORMATION SHEET (CTVIS)

1. PURPOSE OF THE CTVIS

The Coast Guard Marine Safety Center (CG MSC) developed the "Chemical Tank Vessel Information Sheet" to communicate requirements that foreign flag chemical tank vessels must follow while operating on the navigable waters of the U.S. or transferring hazardous material in a port or place under the jurisdiction of the U.S., hereafter referred to as U.S. waters. Although the CTVIS is not a required document, it is highly recommended that the CTVIS document be kept on board foreign chemical tank vessels for future reference. The CTVIS may also be accessed by selecting the "Subchapter O Endorsement" link on the CG MSC's website located at <http://www.uscg.mil/hq/msc/>.

2. CONTACTING THE MARINE SAFETY CENTER.

Questions regarding the CTVIS may be addressed to the CG MSC at the following address and phone number:

Commanding Officer

USCG Marine Safety Center (MSC-3)
2703 Martin Luther King Jr. Ave. SE
Washington, D.C. 20593-7430

Telephone: (202) 795-6731

Email: msc@uscg.mil

3. CERTIFICATE OF COMPLIANCE (COC)

Title 46, Code of Federal Regulations (CFR) Part 153 requires that foreign flag chemical tank vessels obtain a COC prior to carrying certain bulk liquid hazardous materials in U.S. waters. Vessels with an IMO Certificate of Fitness (COF) from Flag Administrations signatory to MARPOL 73/78 are issued a COC endorsed to carry the cargoes listed on the COF after a satisfactory Coast Guard examination.

4. INITIAL ISSUE & RENEWAL OF THE COC; ANNUAL TANK VESSEL EXAM

To have a Certificate of Compliance issued initially or renewed, the vessel's representative must contact the Officer in Charge, Marine Inspection (OCMI) having jurisdiction at the vessel's port of call and arrange for a COC examination. Title 46 CFR Part 153.809(a) requires that the vessel's representative provide the OCMI at least **seven days** advance notice to avoid vessel delays.

Chemical tankers are issued a COC, which is valid for two years. Section 3714 of Title 46 of the

U.S. Code (USC) requires tank ships carrying dangerous cargoes to be examined on an annual basis; therefore chemical tankers are required to undergo an annual tank vessel examination after one year. The regulations do not require the owner or operator to notify the Coast Guard when the annual examination is due, however it is recommended the vessel master contact the cognizant OCMI at least 48 hours in advance to schedule this examination to help avoid vessel delays.

When the vessel undergoes an examination to correct a condition that resulted in the invalidation of the COC under paragraph 5 below, the vessel's representative should provide at least a 48 hour advance notification to the OCMI scheduled to conduct the examination and explain the circumstances that led to the invalidation.

5. VALIDITY OF THE CERTIFICATE OF COMPLIANCE

Unless invalidated by a Coast Guard representative, the COC will be valid for a period of two years as long as the vessel has a valid COF. The COC expiration date will not be affected by reissuance of the COF.

6. OPERATING REQUIREMENTS WHILE IN U.S. WATERS

In addition to applicable operating requirements listed in the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code), the operating requirements of 46 CFR 153 Subpart C also apply to foreign flag chemical tank vessels. Vessel personnel should be familiar with the specific requirements of Part 153 since they are, in some cases, more detailed than those in the IMO Codes.

All vessels operating in U.S. waters must also meet 46 CFR Part 150 Subpart A - "Compatibility of Cargoes." This Subpart is similar to, but more detailed than, paragraph 2.6.2 of the IMCO Code for Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) and paragraph 3.1.3 of the IBC Code.

The representative of a vessel with damage to the cargo system that is considered a hazardous condition per 33 CFR 160.204 must report the damage to the Coast Guard as required by 33 CFR 160.215. For cargo system damage and failures which have been corrected to the satisfaction of the Recognized Organization or Flag Administration, a copy of the repair report should be provided to the Captain of the Port (COTP) prior to the vessel's arrival.

The original IMO COF, all addenda, and the results of the most recent periodic surveys required by section 1.6 of the BCH Code or section 1.5 of the IBC Code shall be kept on board the vessel and made available to Coast Guard representatives upon request.

7. CARGOES THAT MAY BE CARRIED

For a cargo of Noxious Liquid Substances (NLS) to be carried in U.S. waters, the cargo must be listed in Chapter 17 or 18 of the IBC Code and the cargo must be listed on the vessel's IMO COF or the attachments thereto. A small number of cargoes have additional requirements applying to their carriage in U.S. waters that go beyond the requirements of the international codes and conventions. These requirements are listed in paragraph 13 below.

8. CARGOES CARRIED UNDER TRIPARTITE AGREEMENT

A cargo may be carried in U.S. waters under tripartite agreement if the U.S., the vessel's Flag Administration, and the national administration of the port of loading or discharging are all participants in the agreement; the cargo is listed on the vessel's IMO COF or addenda; and a copy of the tripartite agreement is on board the vessel. Parties interested in carrying a cargo not listed in Chapter 17 of the IBC Code, or that is carried under a tripartite agreement in which the U.S. has not participated, must make a request to the Coast Guard Hazardous Materials Standards Division at the following address:

Commandant (G-ENG-5)
2703 Martin Luther King Jr. Ave. SE
Washington, D.C. 20593-7430

Telephone: (202) 372-1424
Email: hazmatstandards@uscg.mil

9. CARGOES NOT AUTHORIZED

The following cargoes are not authorized for bulk liquid carriage in U.S. waters:

Acrolein
Chlorine (*on self-propelled vessels*)
Ethyleneimine
Hydrofluoric acid
Hydrogen
Hydrogen Chloride
Hydrogen Fluoride
Methylcyclopentadienyl Manganese Tricarbonyl
Nitric acid (70% and over)
Nitrogen Tetroxide
Oxygen
Phosphorus Trichloride
beta-Propiolactone

10. VAPOR CONTROL SYSTEM (VCS)

To transfer vapors of a flammable or combustible cargo with a facility regulated by Title 33 CFR Part 154, a vessel's COC must be endorsed by the Coast Guard stating the VCS is approved under 46 CFR Part 39 (see 46 CFR 39.1015). In summary, certification by the Flag Administration or the vessel's Classification Society may be presented to the OCMI to obtain the required VCS endorsement. The certification must include the following items for which the VCS was evaluated:

- a. Vessel identification (name, classification or official number, call sign, flag);
- b. a statement that the vessel's VCS meets the provisions of 46 CFR Part 39;
- c. a statement that the inert gas manual has been amended in accordance with 46 CFR 32.53-10(b)(2), if applicable;
- d. a statement that the oil transfer procedures have been amended in accordance with 33 CFR 155.750(d);
- e. the maximum allowable liquid transfer rate (cubic meters per hour);
- f. the cargo tanks to which the certification applies;
- g. the maximum vapor density of the cargo considered; and,
- h. a list of cargoes for which the VCS was reviewed.

Note that the U.S. Coast Guard has not reviewed all the cargoes being shipped in bulk for VCS requirements. The current list of cargoes that have been assigned a VCS category may be obtained by contacting the CG MSC.

11. TANK COATINGS.

There has been some variation between Flag Administrations and Classification Societies in interpretation of the restrictions on materials of construction in the BCH (section 4.12) and IBC (Chapter 6) Codes as these apply to tank coatings. The U.S. interprets this restriction to include those materials when they appear as components of tank coatings. The implementation of the IMO requirement in U.S. regulation (46 CFR 153.236), which applies to foreign tankers operating in U.S. waters, states that the "...materials listed ... may not be used in components that contact the cargo liquid or vapor." These components include tank linings and coatings.

12. CARGO AREA FOAM AND DRY CHEMICAL SYSTEMS.

Paragraph 3.14.2 of the BCH Code and paragraph 11.3.2 of the IBC Code require a vessel to have one type of fixed foam system in the cargo area, which should be a type of foam effective for "the maximum number of cargoes intended to be carried." In almost all cases, this requirement means the vessel must have a polar (alcohol) type foam system. The master must be able to demonstrate during the COC examination what type of foam is carried on board the vessel. It is recommended that documentation from the manufacturer of the foam and/or foam system listing the cargoes and application rates for which the foam is effective be maintained on board.

Some foreign flag chemical tankers built before May 20, 1981 had fixed dry chemical fire fighting systems. Because the IMO Bulk Chemical Codes still allow this system for those vessels, the arrangement is considered acceptable when accompanied by a valid COF.

13. SPECIFIC CARGO RESTRICTIONS.

Specific cargoes may have additional U.S. requirements that exceed the IMO Chemical Codes. Some of those additional requirements are as follows:

- a. High vapor pressure cargoes (vapor pressures > 100 kPa at 37.8 °C) may be carried if they are listed on the IMO COF and the vessel carries on board a statement from the Flag Administration or Classification Society that the requirements of 46 CFR 153.370, 153.371, and 153.438 are met. If the tanks carrying these cargoes are not refrigerated, the tanks must be designed for relief valve settings no less than the approximate cargo vapor pressures at 46°C (approximately 115 °F). The vapor pressure of the cargo should be made available to Coast Guard inspectors on the cargo information documents required by section 16.2.3.1 of the IBC Code.
- b. Alkylene oxides [propylene oxide; ethylene oxide/propylene oxide mixtures (maximum of 30% ethylene oxide); and 1,2-butylene oxide] may be carried if they are:
 1. listed on the IMO COF; and
 2. the vessel carries on board a statement from the Classification Society or Flag Administration that the cargo piping is separated as specified by paragraph 4.7.17 of the IMO BCH Code (paragraph 15.8.25.3 of the IBC Code) and that the vessel meets 46 CFR 153.530(b), (d) and (p)(1).
- c. Acids may be carried when listed on the vessel's IMO COF if the special requirements listed in IBC Code section 15.11 and 46 CFR 153.554 are met. Some acids also have additional U.S. requirements in excess of the IMO Chemical Codes which shall be observed. Those acids are as follows: Sulphuric Acid (46 CFR 153.556), Hydrochloric Acid (46 CFR 153.557), Phosphoric Acid (46 CFR 153.558), and Nitric Acid (46 CFR 153.559).