weather deck or through the tank cover.

Toxic cargoes includes the following liquefied gases from Table 4 (follows § 154.1872):

<table>
<thead>
<tr>
<th>Chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaldehyde</td>
</tr>
<tr>
<td>Ammonia, anhydrous</td>
</tr>
<tr>
<td>Dimethylamine</td>
</tr>
<tr>
<td>Ethylamine</td>
</tr>
<tr>
<td>Ethyl chloride</td>
</tr>
<tr>
<td>Ethylene oxide</td>
</tr>
<tr>
<td>Methyl bromide</td>
</tr>
<tr>
<td>Methyl chloride</td>
</tr>
<tr>
<td>Sulfur dioxide</td>
</tr>
<tr>
<td>Vinyl chloride</td>
</tr>
</tbody>
</table>

Vapor pressure means the absolute equilibrium pressure of the saturated vapor above the liquid, expressed in kPa (psia), at a specific temperature.

Void space means an enclosed space in the cargo area outside of the cargo containment system, except a hold space, ballast space, fuel oil tank, cargo pump or compressor room, or any space used by personnel.


§ 154.9 Issuance of documents.

The Coast Guard issues an endorsed Certificate of Inspection to a U.S. flag vessel or an endorsed Certificate of Compliance to a foreign flag vessel that meets this part.

§ 154.12 Existing gas vessel: Endorsements and requirements.

(a) Except an existing gas vessel under paragraph (b), (c), or (d) of this section, an existing gas vessel must meet subpart C of this part if the owner desires a document endorsed for the carriage of a cargo listed in Table 4 (follows §154.1872).

(b) If an existing gas vessel is issued a document by the Coast Guard before November 1, 1987 that is endorsed for the carriage of a cargo listed in Table 4 (follows §154.1872), and the owner desires an endorsement for a different cargo listed in that table, the vessel must—

1. Continue to meet the same design and construction standards under which the Coast Guard issued the original document;
2. Meet paragraph (e) of this section;
3. Meet subpart D for the different cargo; and
4. Meet any additional requirements of this part that the Commandant (CG-ENG) determines to be necessary for safety.

(c) If an existing gas vessel is issued a document by the Coast Guard before November 1, 1987 that is endorsed for the carriage of a cargo listed in Table 4 (follows §154.1872), and the owner desires an endorsement for a different cargo listed in that table, the vessel must—

1. Continue to meet the same design and construction standards under which the Coast Guard issued the original document;
2. Meet paragraph (e) of this section;
3. Meet subpart D for the different cargo; and
4. Meet any additional requirements of this part that the Commandant (CG-ENG) determines to be necessary for safety.

(d) If an existing gas vessel does not meet paragraph (b) or (c) of this section and the owner desires a document endorsed for the carriage of a cargo listed in Table 4 (follows §154.1872), the vessel must—

1. Have a letter from the Coast Guard dated before November 1, 1987 stating that—
   (i) Review of the vessel’s plans for the carriage of that cargo is completed; or
   (ii) The vessel’s IMO Certificate endorsed for the carriage of that cargo is accepted;
2. Meet the plans that were reviewed and marked “Examined” or “Approved” by the Coast Guard, or meet the standards under which the IMO Certificate was issued;
3. Meet paragraph (e) of this section; and
4. Meet any additional requirements of this part that the Commandant (CG-ENG) determines to be necessary for safety.

(e) If the owner of a vessel desires any document endorsement described in paragraph (b), (c), or (d) of this section, the existing gas vessel must meet the requirements in each of the following:

1. Section 154.310 (d) and (e).
2. Section 154.320 (b) and (c).
3. Section 154.330 (a) through (e).
4. Section 154.340 (d).
5. Section 154.345 (a), (b)(1) through (b)(5), (b)(7) and (c).
7. Section 154.519 (a)(2).
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(8) Section 154.534.
(9) Section 154.538.
(10) Section 154.540 (c) and (d).
(11) Section 154.556.
(12) Section 154.558.
(13) Section 154.560.
(14) Section 154.562.
(15) Section 154.703.
(16) Section 154.705.
(17) Section 154.706.
(18) Section 154.707.
(19) Section 154.708.
(20) Section 154.709.
(21) Section 154.904.
(22) Section 154.906.
(23) Section 154.908(a), unless the space is separated from the accommodation, service, or control space by a steel door that—
   (i) Is watertight when tested with a firehose at not less than 207 kPa gauge (30 psig);
   (ii) Has a means to self-close and does not have latches or other devices designed to hold it open; and
   (iii) Has an audible and visual alarm on both sides of the door which is actuated when the door is open.
(24) Section 154.910.
(25) Section 154.912.
(26) Sections 154.1110 through 154.1130, except §§ 154.1115(b), 154.1120(b), and 154.1125 (c) and (f).
(27) Section 154.1145, except an existing gas vessel with a cargo carrying capacity of less than 2500 m³ (88,200 ft³) may have only one self-contained dry chemical storage unit if that unit—
   (i) Is installed before November 1, 1987; and
   (ii) Has the capacity to meet §154.1145 (d) and (e), and §154.1170(e).
(28) Section 154.1150 (a) and (b).
(29) Section 154.1155.
(30) Section 154.1160.
(31) Section 154.1165 (a), (b), (d), and (f).
(32) Section 154.1170 (b) through (f).
(33) Section 154.1200 (a), (b)(1), and (b)(2).
(34) Section 154.1205(f).
(35) Section 154.1325.
(36) Section 154.1335(e).
(37) Section 154.1350 (e), (f), (i), (o), and (u).


(a) A person who desires the endorsement required under §154.1801 for a U.S. flag vessel must submit an application for an endorsement of the vessel’s Subchapter D Certificate of Inspection under the procedures in §91.55-15 of this chapter.

(b) The person requesting an endorsement under paragraph (a) of this section must submit to the Coast Guard, if requested—
   (1) Calculations for hull design required by §172.175 of this chapter;
   (2) The plans and information listed in §§54.01-18, 56.01-10, 91.55-5 (a), (b), (d), (g), and (h), and 110.25-1 of this chapter;
   (3) Plans for the dry chemical supply and distribution systems, including the controls; and
   (4) Any other vessel information, including, but not limited to plans, design calculations, test results, certificates, and manufacturer’s data, needed to determine whether or not the vessel meets the standards of this part.


The Certificate of Inspection for a U.S. flag vessel allowed to carry a liquefied gas listed in Table 4 has the following endorsement for each cargo, with the corresponding carriage requirement data inserted:

Inspected and approved for the carriage of ______ at a maximum allowable relief valve setting of ______ kPa gauge (______ psig) with an F factor of ______, a maximum external pressure of ______ kPa gauge (______ psig), a minimum service temperature of ______ °C (______ °F), and a maximum specific gravity of ______. Hull type ______.

§ 154.19 U.S. flag vessel: IMO certificate issuance.

(a) Either a classification society authorized under 46 CFR part 8, or the Coast Guard Officer in Charge, Marine Inspection, issues an IMO Certificate to a U.S. flag vessel when requested by the owner or representative, if—
   (1) The vessel meets the requirements of this part; and
   (2) It is a new gas vessel, it meets the IMO Resolution A.328(IX), “Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, 1975”; or
   (3) It is an existing gas vessel, it meets the IMO “Code for Existing Ships Carrying Liquefied Gases in Bulk, 1975”.

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