Table 1 to Subpart J at Part 60—Molar Exhaust Volumes and Molar Heat Content of Fuel Gas Constituents

<table>
<thead>
<tr>
<th>Constituent</th>
<th>MEVa dscf/mol</th>
<th>MHCb Btu/mol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methane (CH₄)</td>
<td>7.29</td>
<td>842</td>
</tr>
<tr>
<td>Ethane (C₂H₆)</td>
<td>12.96</td>
<td>1,475</td>
</tr>
<tr>
<td>Hydrogen (H₂)</td>
<td>1.61</td>
<td>269</td>
</tr>
<tr>
<td>Ethene (C₂H₄)</td>
<td>11.34</td>
<td>1,335</td>
</tr>
<tr>
<td>Propane (C₃H₈)</td>
<td>18.62</td>
<td>2,100</td>
</tr>
<tr>
<td>Propene (C₃H₆)</td>
<td>17.02</td>
<td>1,947</td>
</tr>
<tr>
<td>Butane (C₄H₁₀)</td>
<td>24.30</td>
<td>2,717</td>
</tr>
<tr>
<td>Butene (C₄H₈)</td>
<td>22.69</td>
<td>2,558</td>
</tr>
<tr>
<td>Inerts</td>
<td>0.85</td>
<td>0</td>
</tr>
</tbody>
</table>

*MEV = molar exhaust volume, dry standard cubic feet per gram-mole (dscf/g-mol) at standard conditions of 68 °F and 1 atmosphere.

*b MHC = molar heat content (higher heating value basis), Btu per gram-mole (Btu/g-mol).

§ 60.111 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Storage vessel means any tank, reservoir, or container used for the storage of petroleum liquids, but does not include:

(1) Pressure vessels which are designed to operate in excess of 15 pounds per square inch gauge without emissions to the atmosphere except under emergency conditions;

(2) Subsurface caverns or porous rock reservoirs, or

(3) Underground tanks if the total volume of petroleum liquids added to and taken from a tank annually does not exceed twice the volume of the tank.

(b) Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Nos. 2 through 6 fuel oils as specified in ASTM D396–78, 89, 90, 92, 96, or 98, gas turbine fuel oils Nos. 2–GT through 4–GT as specified in ASTM D2880–78 or 96, or diesel fuel oils Nos. 2–D and 4–D as specified in ASTM D975–78, 96, or 98a. (These three methods are incorporated by reference—see § 60.17.)

(c) Petroleum refinery means each facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oil, lubricants, or other products through distillation of petroleum or through redistillation, cracking, extracting, or reforming of unfinished petroleum derivatives.

(d) Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(e) Hydrocarbon means any organic compound consisting predominantly of carbon and hydrogen.

(f) Condensate means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

(g) Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.
§ 60.113 Monitoring of operations.

(a) Except as provided in paragraph (d) of this section, the owner or operator subject to this subpart shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

(b) Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(c) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).

(d) The following are exempt from the requirements of this section:

(1) Each owner or operator of each affected facility which stores petroleum liquids with a Reid vapor pressure of less than 6.9 kPa (1.0 psia) provided the maximum true vapor pressure does not exceed 6.9 kPa (1.0 psia).

(2) Each owner or operator of each affected facility equipped with a vapor recovery and return or disposal system in accordance with the requirements of § 60.112.

[45 FR 23379, Apr. 4, 1980]

§ 60.112 Standard for volatile organic compounds (VOC).

(a) The owner or operator of any storage vessel to which this subpart applies shall store petroleum liquids as follows:

(1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system, or their equivalents.

(2) If the true vapor pressure of the petroleum liquid as stored is greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a vapor recovery system or its equivalent.