Pipeline and Haz. Mats. Safety Admin., DOT § 173.156

§ 173.156 Exceptions for limited quantity and ORM.

(a) Exceptions for hazardous materials shipments in the following paragraphs are permitted only if this section is referenced for the specific hazardous material in the §172.101 Table or in a packaging section in this part.

(b) Packagings for limited quantity and ORM–D are specified according to hazard class in §§173.150 through 173.155, 173.306 and 173.309(b). In addition to exceptions provided for limited quantity and ORM–D materials elsewhere in this part, the following are provided:

(1) Strong outer packagings as specified in this part, marking requirements specified in subpart D of part 172 of this
§ 173.158 Nitric acid.

(a) Nitric acid exceeding 40 percent concentration may not be packaged with any other material.

(b) Nitric acid in any concentration which does not contain sulfuric acid or hydrochloric acid as impurities, when offered for transportation or transported by rail, highway, or water shall be packaged in specification containers as follows:

(1) 1A1 stainless steel drums are authorized, subject to the following limitations:

(i) Stainless steel used in drums must conform to the following thicknesses:

<table>
<thead>
<tr>
<th>Nominal (marked) capacity (in liters) of 1A1 drum</th>
<th>Minimum thickness (in mm) of stainless steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>0.9</td>
</tr>
<tr>
<td>115</td>
<td>1.2</td>
</tr>
<tr>
<td>210</td>
<td>1.5</td>
</tr>
<tr>
<td>450</td>
<td>2.0</td>
</tr>
</tbody>
</table>

(ii) Drums weighing less than 85 percent of their original tare weight may not be used.

(iii) Type 304 or other grades of equivalent corrosion-resistant steels in the as-welded condition are permissible for nitric acid concentrations up to and including 78 percent.

(iv) For all concentrations of nitric acid, the following are permissible:

(A) Type 304 heat-treated (quenched in water at 1040 °C (1900 °F)),

(B) Stabilized Type 347 in the as-welded condition,

(C) Stabilized Type 347 stress-relieved (845–900 °C (1550–1650 °F)),

(D) Stabilized Type 347 heat-treated (quenched in water at 1040 °C (1900 °F)), or

(E) Other grades of equivalent corrosion resistance.

(v) All parts of drum exposed to lad ing must be capable of withstanding the corrosive effect of nitric acid to the extent that 65 percent boiling nitric acid does not penetrate the metal more than 0.0301 mm (0.002 inches) per month. (ASTM A 262 may be used for a suitable corrosion test procedure.)

(vi) In addition to marking required by §178.503 of this subchapter, the following marks, in lettering of at least 12.7 mm (0.5 inch) height, must be placed on drums used to transport nitric acid:

Source: Amdt. 173–224, 55 FR 52643, Dec. 21, 1990, unless otherwise noted.