from the outside. Three pockets shall be formed for insertion of the pads. The two front pads shall be removable from the envelope when portions of the lower longitudinal seam are opened, and the back pad shall be removable when a portion of one armhole seam is opened.

(c) Pad inserts—(1) Forming, sealing, and distribution of fibrous glass. The buoyant pad inserts shall be formed from two pieces of film cut to the patterns shown by Dwg. No. 160.005–1, Sheet 3, for adult size, and Sheet 5, for child size, which shall be heat-sealed tight. The heat-sealed pad seams shall show an adhesion of not less than 8 pounds when 1-inch strips cut across and perpendicular to the seams are pulled apart at a rate of separation of the clamping jaws of the test machine of 12 inches per minute. The pad inserts shall be filled with fibrous glass distributed as follows:

<table>
<thead>
<tr>
<th>Pad Insert</th>
<th>Model 52 (minimum)</th>
<th>Model 56 (minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front pad (2):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower section</td>
<td>10.00 oz. each</td>
<td>6.50 oz. each</td>
</tr>
<tr>
<td>Upper section</td>
<td>7.25 oz. each</td>
<td>4.75 oz. each</td>
</tr>
<tr>
<td>Back pad</td>
<td>11.50 oz.</td>
<td>7.50 oz.</td>
</tr>
<tr>
<td>Total</td>
<td>46.00 oz.</td>
<td>30.00 oz.</td>
</tr>
</tbody>
</table>

(2) Displacement of pad inserts. The volume of the finished individual heat-sealed buoyant pad inserts shall be such as to provide buoyancy as set forth in the following table when tested in accordance with the method set forth in §160.005–5(d), except that the period of submergence shall be only long enough to determine the displacement of the pads:

<table>
<thead>
<tr>
<th>Pad Insert</th>
<th>Model 52</th>
<th>Model 56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front pads</td>
<td>12½ lbs.</td>
<td>8 lbs.</td>
</tr>
<tr>
<td>Back pads</td>
<td>1½ lbs.</td>
<td>1½ lbs.</td>
</tr>
</tbody>
</table>

(d) Tie tapes. The tie tapes at the neck shall extend not less than 15 inches from the edge of the adult life preserver and not less than 12 inches from the edge of the child life preserver. They shall be stitched through both thicknesses of the envelope as shown by Dwg. No. 160.005–1, Sheet 1, for adult size, and Sheet 4, for child size, or by the alternate stitching shown on Sheet 2. The free ends shall be doubled over and stitched in accordance with section E-E of Sheet 1.

(e) Drawstrings. The drawstrings at the waist shall extend not less than 8 inches from the edge of the life preserver and shall be secured in the drawstring tunnel as shown by Dwg. No. 160.005–1, Sheet 1, for adult size, and Sheet 4, for child size, or by the alternate stitching shown on Sheet 2. The free ends shall be doubled over and stitched in accordance with section E-E of Sheet 1.

(f) Body strap. The body strap shall be fitted with a single dee ring on one end and with the arrangement of a snap hook and prethreaded double dee rings as shown on Dwg. No. 160.005–1, Sheet 1, on the other. The body strap shall be stitched as shown on the drawings, and the edge of the single dee ring shall be 20 inches from the center line for adult size and 15 inches for child size.

(g) Reinforcing tape. Binding tape shall be stitched approximately 15 inches for adult life preservers and 12 inches for child life preservers around the back of the neck, and also around the openings of the drawstring tunnel and around the bottom of the armholes as indicated by the drawings.

(h) Stitching. All stitching shall be a short lock stitch conforming to Stitch Type 301 of Federal Standard No. 751, and there shall be not less than 7, nor more than 9 stitches to the inch.

(i) Workmanship. Life preservers shall be of first-class workmanship and shall be free from any defects materially affecting their appearance or serviceability.


§ 160.005–5 Sampling, tests, and inspections.

(a) Production tests and inspections must be conducted by the manufacturer of a life preserver and the accepted laboratory inspector in accordance with this section and §160.001–5.

(b) Buoyancy test. The buoyancy of the pad inserts from the life preserver shall be determined according to
§ 160.001–5(c) of this part with each compartment of the buoyant pad insert covers slit so as not to entrap air. The period of submersion must be at least 48 hours.

(c) Buoyancy required. The buoyant pad inserts from Model 3 adult life preservers shall provide not less than 25 pounds buoyancy in fresh water, and the pads from Model 5 child life preservers shall provide not less than 16.5 pounds buoyancy.


§ 160.005–6 Marking.

Each life preserver must have the following clearly marked in waterproof lettering on a front section:

(a) In letters three-fourths inch or more in height:
   (1) Adult (for persons weighing over 90 pounds); or
   (2) Child (for persons weighing less than 90 pounds).

(b) In letters capable of being read at a distance of 2 feet:

Type I—Personal Flotation Device.
Inspected and tested in accordance with U.S. Coast Guard regulations.
Fibrous glass buoyant material provides a minimum buoyant force of (25 lb. or 16½ lb.).
Approved for use on all vessels by persons weighing (90 lb. or more, or less than 90 lb).
U.S. Coast Guard Approval No. 160.005/ (assigned manufacturer’s No.)/(Revision No.). (Model No.).
(Name and address of manufacturer or distributor.).
(Lot No.).


§ 160.005–7 Procedure for approval.

General. Manufacturers seeking approval of a life preserver design shall follow the procedures of subpart 159.005 of this chapter, as explained in § 160.001–3 of this part.


Subpart 160.006—Life Preservers: Repairing

§ 160.006–2 Repairing.

(a) General. No repairs, except in emergency, shall be made to an approved life preserver without advance notice to the Officer in Charge, Marine Inspection, of the district in which such repairs are to be made. Emergency repairs shall be reported as soon as practicable to the Officer in Charge, Marine Inspection.

(b) Kind of repairs. Except in emergency, tapes or straps may not be repaired, but may be renewed, and small holes, tears, or rips in the envelope cover fabric may be repaired, at the discretion of the Officer in Charge, Marine Inspection.

Subpart 160.010—Buoyant Apparatus for Merchant Vessels

§ 160.010–1 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subpart with the approval of the Director of the Federal Register. The Office of the Federal Register publishes a table, “Material Approved for Incorporation by Reference,” which appears in the Finding Aids section of this volume. In that table is found the date of the edition approved, citations to the particular sections of this part where the material is incorporated, addresses where the material is available, and the date of the approval by the Director of the Federal Register. To enforce any edition other than the one listed in the table, notice of change must be published in the Federal Register and the material made available. All approved material is on file at the Office of the Federal Register, Washington, DC 20408, and at the U.S. Coast Guard, Lifesaving and Fire Safety Division (CG-5214), 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126.

(b) The materials approved for incorporation by reference in this subpart are:

National Bureau of Standards (NBS)
“The Universal Color Language” and “The Color Names Dictionary” in Color: Universal Language and Dictionary of Names,