No. IV.21011/41/2009-Prov-I
Government of India
Ministry of Home Affairs

26, Man Singh Road, Jaislmer House,
New Delhi, 16.11.2009

To

The DGs: Assam Rifles/BSF/CRPF/ITBP/NSG/SSB/BPR&D

Subject:- Up-gradation of specifications for the CTS items-regarding.

The specifications, up-graded/framed by the DGS&D, for the following CTS items, have been accepted by the Competent Authority in MHA:-

2. Vest Full Sleeve — Annex ‘B’
3. Ankle Boot Rubber Sole (Jungle Boot) — Annex ‘C’
4. Boot High Ankle DVS (Improved version) — Annex ‘D’

2. Henceforth, all the CPMFs should procure the above items required by them strictly as per the laid down up-graded specifications of the said CTS items.

(Signed)

(R.S. Sharma)
Director (Proc)

Copy to:-

D(I)(Procurement), MHA

Copy for information to:-

PS to JS(PM), MHA
VEST FULL SLEEVES

GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF SUPPLIES & DISPOSALS
JEVEN TARA BUILDING, S, SANSAD MARG
NEW DELHI-110001

DRAFT SPECIFICATION FOR VEST FULL SLEEVES

1. FOREWARD:
   This specification is prepared taking assistance of specification No. O/TEX W-72/1986
   and the experience gained by the department during the past years. Interlock fabric is a
   double 1 x 1 rib knitted fabric with crossed ribber Wales. The Wales on one side of the
   fabric are immediately behind the Wales of the other side of fabric. The appearance of
   this fabric is same on both the sides.

2. SCOPE:
   2.1 This specification applies to the need of paramilitary forces i.e. ITBP etc. and various
   police organizations. This standard prescribes the constructional details & other
   particulars of underpants.

   2.2 This specification does not specify the general appearance, feel, lustre of
   whiteness of the vest. This standard covers six sizes of vests.

3. MATERIAL:
   3.1 COTTON YARN: The cotton yarn used for knitting vests shall be spun from combed
   cotton bleached. The approximate count of yarn shall be 40s.

   3.2 POLYESTER YARN: The polyester yarn used in tucking shall be 150 D and number
   of filaments shall be 120 minimum.

   3.3 The spandex yarn shall be used for making cuff stretchable.

4. THREAD SEWING SPUN POLYESTER-100 d tex x 3 count and conforming to
   IS: 9543-1980. v.no.2.

4. MANUFACTURE:
   4.1 In shape, the vest shall generally be as shown in FIG-1. The vest shall be tailored
   neatly out of well and evenly knitted fabric. The Wales shall run along the length of
   vests.

   4.1.1 The body & sleeves of vests shall be knitted on the interlock machine in 5 x 1
   tuck stitch with 30s combed cotton bleached & 150 D polyester yarn for tucking.
4.1.2 Cuff shall be knitted in 1 x 1 rib stitches identical on both sides with 40s combed cotton bleached and spandex yarn. Cuffs shall be double folded and join with sleeves.

5.9 SEAM AND STITCHES All joining shall be done with flat lock stitch having 3 strands of spun polyester yarn of 100 d tex x1.

5.1 The stitches shall be of even tension, throughout and all the loose ends securely fastened off. The seams and joins shall withstand stretching in all directions to the full extent of the knitted fabric.

6.0 REQUIREMENTS:

6.1 Dimensions and Mass. The vests shall conform to the requirements of table -1 read with Fig-1.

6.2 The vests shall also conform to the requirements as given in Table -2.

6.3 The vests shall be free from the objectionable flaws. The objectionable flaws shall be those which strike immediately the eyes and shall be deemed to include:
   i. Noticeable broken thread in the body;
   ii. Conspicuous broken pattern;
   iii. Large mends;
   iv. Ladder;
   v. Dropped stitches;
   vi. Holes, cuts;
   vii. Mixed stitches at the stitched portion;
   viii. Defective bleaching.

7.0 SEALED SAMPLE: If in order to illustrate or specify the indeterminate characteristics such as general appearance, feel, and type of finish a sample has been agreed upon and sealed, the sample shall be in conformity with the sample in such respect.

8.0 Custody of the sealed sample shall be a matter of prior agreement between the buyer and the seller.

9.0 MARKING: A suitable white cloth label shall be stitched all round on each vest on the inside of the neck opening (back side) on which the following details shall be woven with a fast dyed thread of contrasting shade:
   (a) Name of the material.
   (b) Blend composition.
   (c) Size.
   (d) Manufacturer's Name, initials on trade mark, if any.
   (e) Year of manufacturing.

[Signature]
### Table 1

**Vest Full Sleeves**

<table>
<thead>
<tr>
<th>Size</th>
<th>Width Across Vest (A)</th>
<th>Length of Vest Including Cuff (B)</th>
<th>Length of Cuff (C)</th>
<th>Width of Arm Hole (D)</th>
<th>Depth at Back (E)</th>
<th>Depth at Front (F)</th>
<th>Width at Sleeve (G)</th>
<th>Shoulder Slope (H)</th>
<th>Mass per Vest (Grams) (see note)</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>41</td>
<td>66</td>
<td>49</td>
<td>5.5</td>
<td>19</td>
<td>4.5</td>
<td>16</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>90</td>
<td>43</td>
<td>68.5</td>
<td>52</td>
<td>5.5</td>
<td>20</td>
<td>4.5</td>
<td>16</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>95</td>
<td>45.5</td>
<td>71</td>
<td>55</td>
<td>6.0</td>
<td>21.5</td>
<td>5</td>
<td>16.5</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>100</td>
<td>48</td>
<td>73.5</td>
<td>58</td>
<td>6.0</td>
<td>23</td>
<td>5</td>
<td>17</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>105</td>
<td>50.5</td>
<td>76</td>
<td>61</td>
<td>6.0</td>
<td>24</td>
<td>5</td>
<td>17.5</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>110</td>
<td>53.0</td>
<td>77.5</td>
<td>64</td>
<td>6.6</td>
<td>25.5</td>
<td>5</td>
<td>18.5</td>
<td>15.5</td>
<td>5</td>
</tr>
<tr>
<td>TOLERANCE</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

All Dimensions in Centimeters.

Note: A tolerance of ±3 percent on the mass of individual vest shall be permissible provided the average minimum mass for 10 vests is maintained.
## TABLE 2: REQUIREMENTS OF VEST FULL SLEEVES

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>Requirements</th>
<th>Tolerance</th>
<th>Method of Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Blend Composition (excluding bottom of leg portion)</td>
<td>(i) 80 % Cotton (ii) 20 % polyester</td>
<td>+ 5 %</td>
<td>IS: 3416 part-1-1988 R.A 2006</td>
</tr>
<tr>
<td>b</td>
<td>Blend Composition (bottom)</td>
<td>(i) 97 % Cotton (ii) 3 % spandex</td>
<td>+ 1.2 %</td>
<td>IS: 3416 part-1-1988 R.A 2006</td>
</tr>
<tr>
<td>c</td>
<td>NO of Waves/INCH on either surface of body (excluding floating polyester thread)</td>
<td>32</td>
<td>+ 2</td>
<td>As per clause A-4 of IS: 2360-1977</td>
</tr>
<tr>
<td>d</td>
<td>NO of courses/INCH on either surface of body</td>
<td>30</td>
<td>+ 2</td>
<td>As per clause A-4 of IS: 2360-1977</td>
</tr>
<tr>
<td>e</td>
<td>Cuff (a) Wale/INCH (b) Course/INCH</td>
<td>54/42</td>
<td>+ 2</td>
<td>As per clause A-4 of IS: 2360-1977</td>
</tr>
<tr>
<td>f</td>
<td>Dimensional Change percent (a) length wise (b) Width wise</td>
<td>2.5/2.5</td>
<td>Max</td>
<td>IS: 2977-1989</td>
</tr>
<tr>
<td>g</td>
<td>PH Value</td>
<td>6 to 8.5</td>
<td>5/4</td>
<td>IS: 1390-1983 (cold method)</td>
</tr>
<tr>
<td>h</td>
<td>Scouring Loss %</td>
<td>2.0%</td>
<td>Max</td>
<td>As per clause A-6 of IS: 2360-1977</td>
</tr>
<tr>
<td>i</td>
<td>Mass, g/m²</td>
<td>200</td>
<td>5/4</td>
<td>IS: 1964-2001</td>
</tr>
</tbody>
</table>
**PACKING:** Vests of the same size shall be packed as per specification no G/TEX/W-77/1996 clause 10.

**SAMPLING:**

(a) A consignment of vests of the same size, delivered to a buyer against a dispatch note, shall constitute a lot.

(b) The conformity of the lot to the requirements of this specification shall be determined on the basis of the results carried out on the samples selected from it.

© Unless otherwise agreed between the buyer and the seller, the number of vests, depending upon the size of the lot, shall be selected at random in accordance with col. 2 of Table 3.

(4) The sample size and criteria for conformity for each of the characteristics shall be as follows:

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Sample size</th>
<th>Criteria for conformity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension, Number of weaves And courses and freedom From defect</td>
<td>All the vests selected according to col. 2 of Table 3</td>
<td>Non conforming vests not to exceed the corresponding number given in col. 3 of Table 3</td>
</tr>
<tr>
<td>Mass</td>
<td>All the sets or 10 vests Made from these. Selected according to col. 2 of Table 3</td>
<td>Each observed value must satisfy the specified requirements</td>
</tr>
<tr>
<td>Composition, dimensional Change, pH value, scoring Less, mass give</td>
<td>All the vests selected according to col. 4 of table 3</td>
<td>Non conforming vests not to exceed the corresponding numbers given in col. 4 of table 3</td>
</tr>
</tbody>
</table>
Table 3 Number of vest to be selected from a lot and
Permissible number of non-conforming vest.
Clause No. 11 (b) & 11 (c)

<table>
<thead>
<tr>
<th>No. of Vests in the Lot</th>
<th>Non Destructive Testing</th>
<th>Destructive Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Vests to be inspected</td>
<td>Permissible No. of Nonconforming Vests</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>UP TO 300</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>301 TO 500</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>501 TO 1000</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>1001 TO 3000</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>3001 &amp; ABOVE</td>
<td>80</td>
<td>5</td>
</tr>
</tbody>
</table>