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No. U.II-23/2010-11-Prov (CoBRA) 9534
भारत सरकार/Government of India
गृह मंत्रालय/Ministry of Home Affairs

9584
10120/114

पुलिस आधुनिकीकरण प्रभाग /Police Modernization Division
संभरण-I डेस्क /Prov.I Desk
GOVERNMENT OF INDIA
NEW DELHI

26, Man Singh Road, Jaisalmer House,
New Delhi, the 5th November, 2014

Date: 2587
11/11/14

To,

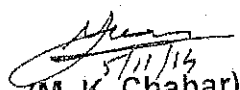
The DsG: AR (through LOAR), BSF, CISF, CRPF, ITBP, SSB, NSG & BPR&D.

Subject: Revised QRs/Specifications and Trial Directives of Light Weight Sleeping Bag.

Sir (s),
The undersigned is directed to refer to the subject mentioned above and to say that the revised QRs/Specifications and Trial Directive in respect of Light Weight Sleeping Bag as per Annex-I and Annex-II respectively have been approved by the competent authority in MHA.

- Henceforth, all the CAPFs should procure the above item required by them strictly as per the laid down QRs/Specification.
- The QRs/Specifications of Light Weight Sleeping Bag issued earlier vide letter of even No. dated 22.08.2013 is rescinded.

Yours faithfully,



(M. K. Chahar)


Under Secretary to the Govt. of India


Encl: As*above.

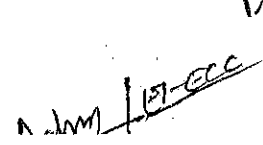
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SO (IT), MHA - with the request to host the revised Trial Directives on official website of MHA (under the page of Organizational Set up, Police Modernization Division) and remove earlier QRs/Specifications vide letter of even number dated 22.08.2013 (<http://mha1.nic.in/QRs/clothings/ClothingLightWgSleepingBag-010413.pdf>). Soft copy is being sent through email also.


(R. K. Soni)
Section officer (Prov-I)

Copy to: Director (Procurement) MHA. 

Pl send one copy to 





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Handwritten notes on the left margin including 'A', '(LTS)', and '11/11'.

2. SPECIFICATIONS

Size	1. Length:- 208-215 Cms 2. Width:- 74-78 Cms 3. Width:- 50-52 Cms The reference diagram of the Light Weight Sleeping Bag is as per appendix- "A"
Net Weight	650 -710 gram
Shell Material	100% Nylon 210T or 100% Polyester 210T
Lining	100% Polyester 210T Taffeta
Insulation/Filling	100% Polyester(preferably micro-mixed containing 1.5D superfine hollow fiber) 50 g/m ²
Zipper	Heavy duty synthetic
Packing Bag	Approx 13 ± 2 x 20± 2 cms
Colour Specification	Olive Green as per appendix "B"

3. MECHANICAL PROPERTIES

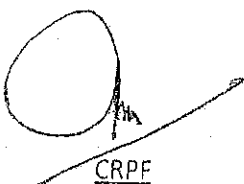
- Size:** It should be possible for a 6 feet tall man to be fully encased inside the sleeping bag. The bag will be tested directly for this.
- Dry Insulation:** The basic purpose of the sleeping bag is thermal insulation, that is protection from outside cold.
- Wet Insulation:** Soldiers in the field might be exposed to rain as they are sleeping. This is likely to make the outer surface of the sleeping bag wet. The purpose is to check whether a wet sleeping bag would transmit more cold to the user.
- Water Resistance:** Water resistance of the sleeping bag refers to the amount of water that may seep in when the sleeping bag is subjected to rain. It may seep through the fabric, the zipper or the stitching.

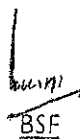
4. SAMPLE FOR TESTING


The firm will submit two samples for testing with their technical bid.

5. WORKMANSHIP AND FINISH

The general workmanship and finish must be of high standard. The bag shall be free from stitching defects like uneven stitch, puckering, gathering of threads, cuts & holes, streaky or patchy dyeing, stains and any other spots affecting the aesthetic appearance.


CRPF


BSF


CISF


SSB


ITBP


A/Rifle


BPR&D


MSQ


CSBPA

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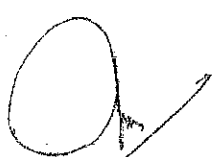
QRs/ SPECIFICATIONS OF LIGHT WEIGHT SLEEPING BAG

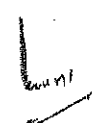
0.0 FOREWORD

- 0.1 This specification shall be used for tender enquiry, procurement, manufacture and Quality Assurance.
- 0.2 This specification is liable to be amended at any time and therefore is applicable only to specific enquiry made at any time, for any subsequent enquiry, a fresh copy of the specification is to be obtained.
- 0.3 This is restricted document and therefore should not be communicated to any one who is not authorized to receive it.
- 0.4 Any deviation from this specification will not be restored to without the express written sanction of authorized body.

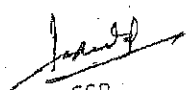
1.0 SCOPE

- 1.1 Sleeping bag governed by this specification is required to provide protection/comfort to the CoBRA troops/or any other troops undertaking counter insurgency operations primarily in jungles of India in various states under where the temperature during winters does not normally go below 8°C.
- 1.2 This specification is intended to provide guidance to manufactures, suppliers, quality assurance agencies and store holding depots/ indenters so that they may quote for our exact requirement.
- 1.3 A sleeping bag is a protective "bag" for a person to sleep in, essentially a blanket that can be closed with a zipper to cover the whole body if necessary. Heavily padded sleeping bags also double as beds for campers, hikers, outdoorsmen, mountaineers and the like. For CoBRA troops or any other troops operating in the jungles for similar duration the requirements are rather different from hikers, campers and mountaineers. The troops in winter months require the sleeping bag more for providing warmth and thermal insulation than as a bed. Hence heavy padding is not required. Even for that purpose, since our troops operate mostly in such areas of India where winters are not very severe, the sleeping bags which they require would be different from those needed for troops operating in say, Kashmir valley or Leh. Our troops generally sleep in the open in the jungles on a plastic sheet. A sleeping soldier could well be exposed to some rain also. Hence the sleeping bag should resist water also. Weight of the sleeping bag is critical for CoBRA and other jungle troops because the troops are encumbered with about 25 kg already. The sleeping bag must lend itself to being rolled up and packed inside a cylindrical bag.
- 1.4 The sleeping bag would therefore be tested for precisely these conditions.

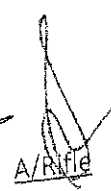

CRPE


BSF


CISF

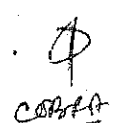

SSB


ITBP


A/R/IE



BPR&D



ASG


CoBRA

TRIAL DIRECTIVE

Sl.No	Para meter	Method of test
1.	Size	6 feet high men will be made encased to sleep inside the sleeping bag.
2.	Shape	The Light Weight Sleeping Bag should be as per the diagram mentioned at appendix- "A"
3.	Dry Insulation	For testing this, winter will be simulated by placing the sleeping bag in a commercial cold storage. the temperature of which will be got adjusted at 04 to 6° degrees Celsius. Since feeling of cold by humans is a highly subjective affair with somebody feeling colder than others. the test will be made more objective. The insulation provided by the sleeping bag will be tested by the following method. The sleeping bag would first be placed in an ambience so that its temperature reaches 32-34 degrees. Then it will be spread out and placed in the cold storage at 04 to 6° degrees. The probe of a digital thermometer (Mextech Multi thermometer) will be placed inside the sleeping bag with human being and it will be fully zippered. Then the person lying inside the bag will be left for half an hour. After that the temperature reading will be taken to ascertain the temperature inside the bag. The inside tempreture should not be found less than 8 to 9 degrees. A range needs to be given because the temperature can not be maintained at any single degree because of continuous use of cold storage by the clients. Likewise a range also needs to be given for the temperature to be maintained inside sleeping bag.
4.	Wet Insulation	For this purpose, the outer surface of the sleeping bag would be made wet by a given quantity of water sprayed uniformly on it. The quantity of water used will be 3 Ltr. Then its insulation will be tested by the method described above and then its Temp should not be found less than 7 degree.
5.	Water Resistance	The water resistance will be tested by keeping a khaki uniform (shirt and trousers) in spread out condition inside the sleeping bag and zippering it. Khaki uniform cloth is chosen because when it gets wet, the wet area shows up markedly in good contrast. After that the sleeping bag will be zippered and it will be subjected to an artificial rain for a <u>given amount of time (not less than 01 hour)</u> from a <u>given type of shower</u> (simulating light drizzle) decided by the CoBRA Sector. After a certain length of time, the artificial rain will be stopped and the uniform will be taken out, and the extent of seepage will be estimated by the area of the uniform that has become wet. This test is, of course, relative in nature and no absolute standards are provided for.
6.	Material of Shell, Lining and Insulation.	In case there is any doubt about the claim of the supplier regarding the material used, the material will be got tested by any accredited or Govt. approved laboratory (i) Field trial will be conducted before the tenderers (ii) At the time of bulk supply if any deviation found with the specification same will be rejected.


CRPF


BSF


CISF


SSB


ITBP


A/Rifle

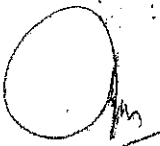
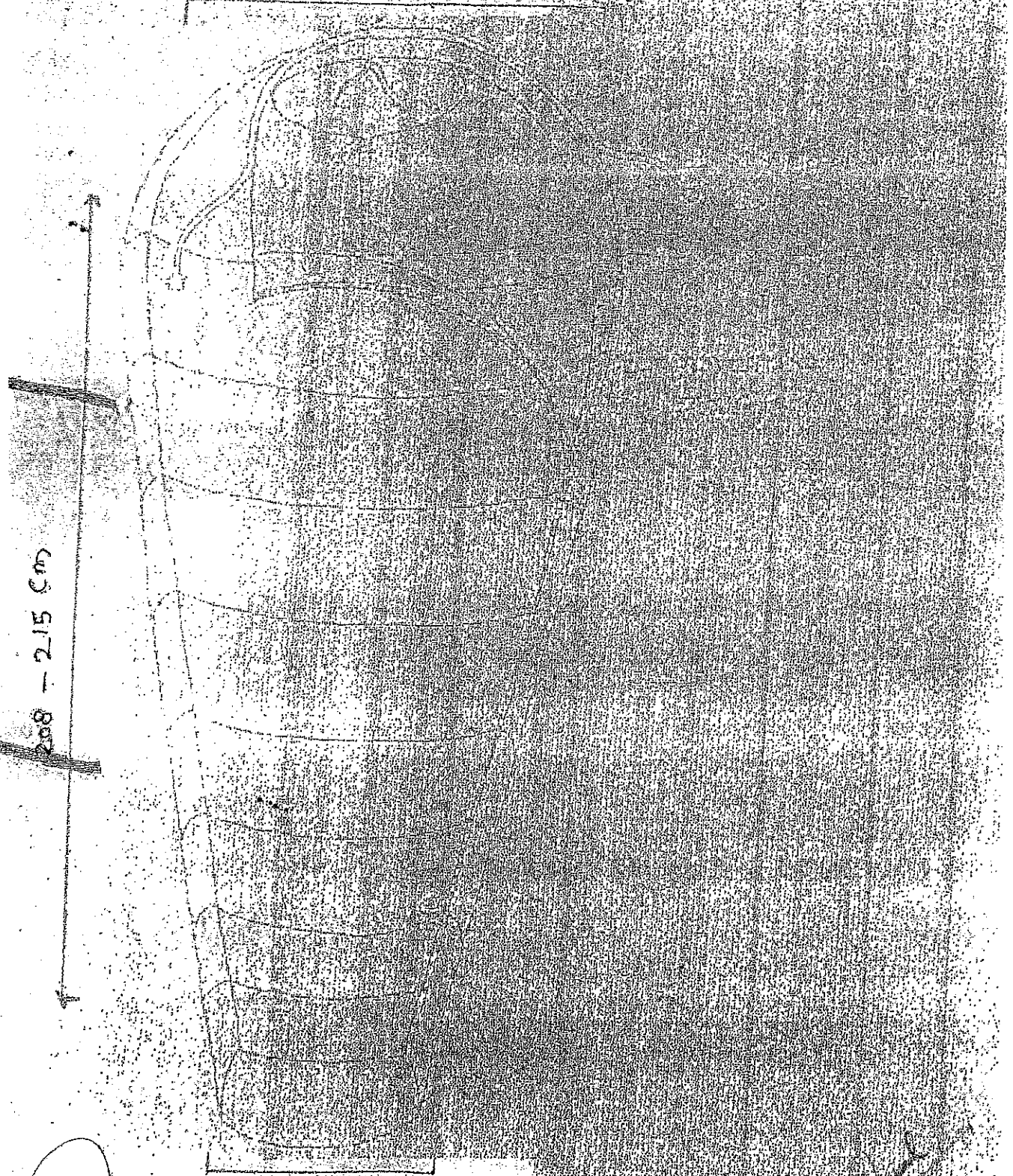

BPR&O


MSQ


CoBRA

SLEEPING BAG (DG)

74 - 78 cm



50-52 cm

CRPF

BSF

CISF

SSB

ITBP

AIR/te

BPR&D

M

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Table-5: Specification of colour of "Sleeping Bag"-Component-1
 (AATCC Test method 173 : 2005 & AATCC Evaluation Procedure 7 : 2003)

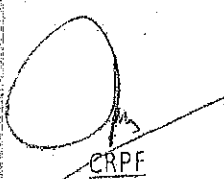
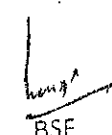




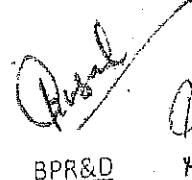

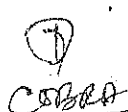
Colour	Olive Green		
System	CIE LCH		
Illuminant Observer	D 65		
Standard Observer	10 Degree		
Stimulus Values	X	Y	Z
	15.783	17.262	6.533
LCH	L	C	H
	48.588	32.863	95.830
CMC (l:c)	2:1		
Colour difference, ΔE_{cmc}	≤ 2.0		

Interpretation of Results :

- i) If ΔE_{cmc} is less than or equal to 2, then sample is acceptable.
- ii) If ΔE_{cmc} is greater than 2, then sample is unacceptable.

Note-1 : Absorbance/reflectance/ transmittance are affected by surface characteristic features of the substrate. Therefore comparison should be made between samples of same type i.e., identical fabric construction parameters and filament/ fibre composition.

Note-2 : Test should be carried out after proper conditioning as per AATCC-173.

 CRPF
  BSF
  CISF
  SSB
  IFRP
  ARME
  BPR&D
  MLC
 CSB&D