



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

Bid Receiving - PWGSC / Réception des
soumissions - TPSGC
11 Laurier St./ 11, rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

**LETTER OF INTEREST
LETTRE D'INTÉRÊT**

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

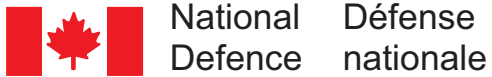
Issuing Office - Bureau de distribution
Clothing and Textiles Division / Division des vêtements et
des textiles
11 Laurier St./ 11, rue Laurier
6A2, Place du Portage
Gatineau, Québec K1A 0S5

Title - Sujet SLEEPING BAG SYSTEMS - LOI #2		
Solicitation No. - N° de l'invitation W8486-151419/C		Date 2016-05-02
Client Reference No. - N° de référence du client W8486-151419		GETS Ref. No. - N° de réf. de SEAG PW-\$\$PR-760-70867
File No. - N° de dossier pr760.W8486-151419	CCC No./N° CCC - FMS No./N° VME	
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-05-31		Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>		
Address Enquiries to: - Adresser toutes questions à: Richard, Josette		Buyer Id - Id de l'acheteur pr760
Telephone No. - N° de téléphone (819) 956-7288 ()		FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes		

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie) Signature Date	



NOTICE

This document has been examined by the Technical Authority for content and confirmed that it has no references to controlled goods.

LETTER OF INTEREST (LOI) – SLEEPING BAG SYSTEM (SBS)

**LETTER OF INTEREST (LOI)
FOR THE
SLEEPING BAG SYSTEM (SBS)**

1.0 SCOPE

1.1 Purpose – The purpose of this Letter of Interest (LOI) is to inform industry that the Department of National Defence (DND) intends to post a new Request for Proposal (RFP) for an improved Sleeping Bag System (SBS), following the cancellation of RFP [W8486-151419/A](#). In preparation for the new RFP, this LOI seeks to obtain feedback from industry on the attached Draft SBS Technical Documents as well as responses to other specific DND questions posed herein. Further, interested vendors are requested to provide feedback on the proposed high level procurement strategy details associated with this requirement.

1.2 Nature of Letter of Interest – This Letter of Interest (LOI) is not a bid solicitation. This LOI will not result in the award of any contract; therefore, potential bidders of any goods or services described in this LOI should not earmark stock or facilities, nor allocate resources, as a result of any information contained in this LOI. Nor will this LOI result in the creation of any source list; therefore, whether or not any potential bidder responds to this LOI will not preclude that bidder from participating in any future procurement. Also, the procurement of any of the goods and services described in this LOI will not necessarily follow this LOI. This LOI is simply intended to solicit information from industry with respect to the contents of this LOI.

1.1 Background - The previously posted SBS RFP, W8486-151419/A, was intended for the procurement of a man-portable Sleeping Bag System for the Canadian Armed Forces, to be used by personnel operating in consistently changing terrain in tropical, subtropical, temperate and polar conditions. The RFP [W8486-151419/A](#) was cancelled 12 May, 2015.

2.0 DRAFT RFP AND TECHNICAL DOCUMENTS

2.1 Requested Feedback – As described above, DND would appreciate industry feedback regarding the following technical annexes to this document:

- Annex A : Draft Request for Proposal including the following Annexes:
 - Annex B: Specification; incl. Appendix BI Method for Measuring the Drying Time of a Sleeping Bag Liner
 - Annex C: Statement of Work (SOW);
 - Annex D: Bid Technical Evaluation Plan (BTEP);
 - Annex E: User Acceptance Performance Evaluation (UAPE) Plan; and,
 - Annex F: Bid Technical Evaluation Matrix (BTEM).

2.2 Key Changes to the Specification – The attached Draft SBS Technical Documents incorporate several changes from the previous version posted as part of solicitation W8486-151419/A. The following list identifies some of the key areas where changes have been made. However, this list is not exhaustive. It is crucial therefore, that interested bidders review all technical documents thoroughly in preparation for responding to this LOI:

- Thermal Insulation requirements and Testing;
- With the exception of User Acceptance Performance Evaluation (UAPE) and the Testing for Measuring the Drying Time of a Sleeping Bag Liner, industry will be required to manage all materials and system-level testing, see deliverables at Bid Technical Evaluation Plan, B1 and, B2; and Contract Deliverables at Statement of Work, C1 and C2;
- Clarifications on testing requirements and expected results;

- Clarifications on acceptable Laboratories for the performance of Materials and System Level Testing; and,
- Storage Bag requirements.

2.3 Additional Technical Questions – In addition to reviewing the Draft SBS Technical Documents and providing feedback, interested bidders are requested to respond to the following questions:

2.3.1 Does the potential bidder feel that they are capable of providing a system that meets the Thermal Insulation Testing Requirements identified at para 3.2.1 in the specification. If not, please explain how you do not meet these requirements and how close you are to achieving these requirements?

2.3.2 Does the potential bidder feel that they are capable of meeting the requirements identified in the Liner Fabric Requirements Table at para 3.3.2.6 in the Specification, if no, please explain which criteria cannot be met and why they cannot be met or what values are achievable?

2.3.3 Does the potential bidder feel that they are capable of meeting the requirements identified in the Shell Fabric Requirements Table at para 3.3.3.2.2 in the Specification, if no, please explain which criteria cannot be met and why they cannot be met or what values are achievable?

2.3.4 Does the potential bidder feel that they are capable of meeting the requirements identified in the Plumage Requirements Table, if applicable, at para 3.3.5.1.7 in the Specification, if no, please explain which criteria cannot be met and why they cannot be met or what values are achievable?

2.3.5 Does the potential bidder feel that they are capable of meeting all of the Mandatory and Point-Rated criteria identified at para's 4.2 and 4.3 of the Bid Technical Evaluation Plan (BTEP) and as identified in the Bid Technical Evaluation Matrix (BTEM)?

2.3.6 Once a contract is awarded, how much time would be needed to send a pre-production sample to DND?

2.3.7 Once the Pre-Production sample is approved by DND, how much time would be needed to start delivery?

2.3.8 Once delivery commences, what is the estimated weekly production rate?

3.0 SOLICITATION PROCESS

3.1 Proposed Procurement Strategy – It is proposed that the SBS solicitation process be run in three phases:

- Phase B1: The initial stage of the solicitation process would be comprised almost entirely of a paper evaluation of bidder's proposed SBS products. During this phase, interested bidders would need to provide evidence in the form of technical documentation and certifications that their product and product materials meet the requirements as outlined in the BTEP. All bidders that meet the requirements would move on to Phase B2.
- Phase B2: The second stage of the solicitation process would be comprised almost entirely of system testing and sample submissions of bidder's proposed SBS products as outlined in the BTEP. DND would not reimburse vendors for costs associated with completing the testing or sample submissions. The two (2) responsive bids that achieve the highest combined rating of technical merit (based on the sum of technical points from B1 and B2) and price in accordance with the terms of the Solicitation would be recommended for advancement to Phase B3.

- Phase B3: The final stage of the solicitation process would be comprised of the User Acceptance Performance Evaluation. A quantity of 21 samples from each of the top two proposed SBS products identified at Phase B2 would be supplied for the UAPE. During this stage, the samples would be tested by the user community at DND in accordance with the UAPE Plan. Bidder(s) would be reimbursed for these UAPE samples.
- At the end of Phase B3, the responsive bid with the largest sum of technical points scored in Phases B1, B2 and B3, would be recommended for award of the SBS contract.

3.2 Canadian Content Policy - As the International Trade Agreements do not apply to this commodity, the Canada intends to limit any potential future SBS RFP to Canadian goods and/or services through application of the Canadian Content Policy (CCP). The policy is a cabinet policy, which encourages industrial development in Canada by limiting competition for government procurement opportunities to suppliers of Canadian goods and services. When a requirement is covered by the CCP, the bidder must certify the Canadian content by submitting a certification that the good or service offered meet the definition of Canadian goods and/or services.

In the context of this requirement, eligible bidders would be required to propose a SBS solution, which is deemed to be wholly manufactured or originating from Canada. Under the policy, a product containing imported components could be considered Canadian when it has undergone sufficient change in Canada, in a manner that satisfies the definition specified under the North American Free Trade Agreement (NAFTA) Rules of Origin.

Greater detail on the Canadian Content Policy may be obtained from the Buyansell.gc.ca website:

<https://buyandsell.gc.ca/policy-and-guidelines/supply-manual/annex/3/6>

3.3 Other Potential Standard Acquisition Clauses and Conditions

Respondents are encouraged to review the standard acquisition clauses and conditions at the web link provided below. While a future SBS RFP may present different standard terms and conditions, these clauses are standard in Canadian federal government contracts and are indicative of the General Conditions that could be applied to any future SBS RFP:

<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2030/16>

4.0 ESTIMATED SCHEDULE

Procurement Activity	Estimated Timeline
Letter of Interest 2	April 2016
Request for Proposal (RFP) posted on Buyandsell.ca	July 2016 (3 months)
RFP closes – B1 Deliverables Due	Oct 2016
B2 Deliverables Due	Dec 2016
Award of Trial Contract(s) for User Acceptance Performance Evaluation (UAPE)	Mar 2017 (6 weeks)
Trial Contract(s) B3 Deliverables Due	Apr 2017
Award of full Contract	July 2017
Pre-production Sample Submission	Nov 2017
Estimated Completion of Firm Quantity	Dec 2019

5.0 RESPONSES

5.1 **Instructions** – Bidders are requested to submit a written response to the LOI Authority identified in section 5.9 by the closing date of this Letter of Interest (LOI). It is expected that the following information be provided:

5.1.1 Respondent's name, contact information and return address;

5.1.2 Indication of intention of submitting a bid for this second RFP;

5.2 **Format** – Written responses must be submitted in two (2) hard copies only. Responses may be submitted in either official language.

5.3 **Delivery Address** – Responses are not considered bids, however, responses shall be sent to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit at the following address:

Bid Receiving Unit
Public Works and Government Services Canada (PWGSC)
Place du Portage
Level 0A1, Phase III
11 Laurier Street,
Gatineau, Quebec K1A 1C9

5.4 **Use** – Responses will not be formally evaluated, however, they may be used by DND to develop the Specification, Statement of Work and or Bid Evaluation Plan for the next RFP. All responses received by the LOI closing date will be reviewed by DND. DND may, at its discretion, review responses received after the LOI closing date. Written responses to this LOI will not be returned.

5.5 **Costs** – The Government of Canada will not reimburse any respondent for expenses incurred responding to this LOI.

5.6 **Parameters** – Respondents are reminded that this LOI is not a Request for Proposal. In that regard, respondents should feel free to include any comments or concerns with their responses. Canada reserves the right to seek clarification from a respondent on information provided in response to this LOI, either by telephone, in writing, or in person.

5.7 **Confidentiality** – The confidentiality of each Respondent will be maintained. Respondents are requested to clearly identify portions of their response that are proprietary. Items that are identified as proprietary will be treated as such except where Canada determines that the item is not of a proprietary nature.

5.8 **Enquiries** – Enquiries regarding this LOI must be directed to the LOI authority. Enquiries received after 15 days before the closing date of this LOI may not be answered. Because this is not a bid solicitation, the Government of Canada will not necessarily respond to all enquiries in writing, nor circulate all answers to industry. However, in the event that answers are circulated, Enquirers should clearly identify portions of their questions that are proprietary in nature. Canada may edit the questions or request that the Enquirer do so, so that the proprietary nature of the question is eliminate, and the enquiry can be circulated to industry.

5.9 **LOI Authority** – Public Works and Government Services Canada (PWGSC) is responsible for the management of the LOI process. The PWGSC contact and LOI Authority for this LOI is:

Josette Richard
Supply Specialist
Clothing and Textiles Division

Public Works and Government Services Canada (PWGSC)
Place du Portage, Phase III, 6A2
11 Laurier Street
Gatineau, Quebec K1A 0S5
Telephone: (613) 462-4128
Fax: (819) 956-5454
E-Mail address: Josette.richard@tpsgc-pwgsc.gc.ca

ANNEX “A”

DRAFT REQUEST FOR PROPOSAL (RFP) DOCUMENT, INCLUDING TECHNICAL ANNEXES

This Request for Proposal W8486-151419/? supersedes and cancels solicitation number W8486-151419/A dated 2014-10-09 with a closing of 2015-05-28 at 14h00 (EDT).

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PART 1 - GENERAL INFORMATION

1.1 Security Requirement

There is no security requirement associated with this bid solicitation.

1.2 Summary

This Request for Proposal is for the provision of Sleeping Bag Systems for the Department of National Defence. This evaluation process will be conducted in three (3) phases (Phase B1, B2 and B3) in accordance with Annex D – Bid Technical Evaluation Plan.

Based on the results of Phases B1 and B2, a maximum of two (2) trial contracts will be awarded for the supply of 21 sleeping bag systems under each contract. These sleeping bags will be used in Phase B3 for a User Acceptance Performance Evaluation.

At the end of the Phase B3, based on the results of Phases B1, B2 and B3, one contract will be awarded for the supply of 10,000 sleeping bag systems. This contract, the Main Contract, will also include the possibility to purchase special sizes or Design Improvement services and user replaceable parts which are to be ordered on an as and when requested basis. It will also include the option to purchase additional quantities of sleeping bag systems (inclusive of all sleeping modules), spare liners and other sleeping modules separately.

Note that a maximum of two (2) bids per Bidder can be submitted.

The requirement for the Trial Contracts is detailed in Part 6 – Trial Contract Clauses.

The requirement for the Main Contract is detailed under Annex B – Specification and Annex C – Statement of Work.

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.4 Trade Agreements

The requirement is subject to the provisions of the Agreement on Internal Trade (AIT).

1.5 Canadian Content

The requirement is subject to a preference for Canadian goods and/or services.

1.6 Federal Contractors Program For Employment Equity

The Federal Contractors Program (FCP) for employment equity applies to this procurement; see Part 5 - Certifications, Part 7 - Resulting Main Contract Clauses and the annex titled Federal Contractors Program for Employment Equity - Certification.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2015/07/03) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 365 days

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than fourteen (14) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

2.5 Sealed and Reference Samples

In order to receive the reference samples against this solicitation, bidders must provide the following details with their request:

- 1) Company Name
- 2) Complete mailing & physical address (P.O. box numbers not acceptable)
- 3) Area code and telephone number
- 4) Contact name
- 5) E-mail address
- 6) Solicitation Number & Closing Date

Bidders may send their request by e-mail to:
E-mail : josette.richard@tpsgc-pwgsc.gc.ca

It is imperative that the request for the reference be done as soon as possible to ensure timely receipt. Notwithstanding Canada must not be held responsible for untimely release of the reference samples.

Available samples are detailed in Annex B Specification.

2.5.1 Reference Samples - Return To Sender

The reference samples which may have been sent to you are to be returned to the sender at no charge to Canada, if you are the unsuccessful Bidder, within fifteen (15) days from receipt of regret letter. The reference samples are not to be mutilated or cut, and must be returned in the same condition as sent to the Bidder.

2.5.2 Sealed Sample

Sealed Samples are duplicates of the Master Sealed sample. The Master Sealed Sample is the Department of National Defence prototype that embodies the characteristics required in production. A Sealed Sample will be available for examination by Bidders at Public Works and Government Services Canada regional offices: Sealed Pattern DSSPM 281-01 for Canadian Average Green (CAG).

2.6 Transportation Costs Information

The Bidder is requested to provide the following information concerning transportation costs for the delivery of the units to destination:

- (a) shipping weight by unit; _____
- (b) number of items by unit; _____
- (c) cubic measurement by unit; _____
- (d) number of units per shipment: _____
- (e) name of shipping point; _____
- (f) recommended method of shipment and carrier _____
- (g) Unit cost per Destination WB941: \$ _____ W248A: \$ _____
- (h) Total cost \$ _____

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I - Technical Bid (3 hard copies)
Section II - Financial Bid (1 hard copy)
Section III - Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation;

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and

2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

3) Green Initiatives (for PWGSC information only)

Bidders are requested to provide details of their policies and practices in relation to the following initiatives:

- environmentally responsible manufacturing;
- environmentally responsible waste disposal;
- waste reduction;
- packaging;
- re-use strategies;
- recycling.

Section I: Technical Bid

In their technical bid, bidders must demonstrate their compliance in accordance with Annex D: Bid Technical Evaluation Plan.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with Annex A. The total amount of Applicable Taxes must be shown separately.

3.1.1 Exchange Rate Fluctuation

C3011T 2013/11/06 Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 EVALUATION PROCEDURES

(a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

(b) An evaluation team composed of representatives of Canada, which may include their designated third-party consultants, will evaluate the bids.

(c) The evaluation team will determine first if there are two or more bids with a valid Canadian Content certification. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than two responsive bids with a valid certification remain, the evaluation will continue among those bids with a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

4.2 BID TECHNICAL DELIVERABLES - ALL PHASES

As part of the technical evaluation, to confirm a Bidder's capability of meeting the technical requirements, bid technical deliverables must be submitted as per Annex D - Bid Technical Evaluation Plan (BTEP) or each evaluation phase.

A maximum of two (2) bids per bidder can be submitted.

All bid technical deliverables must not bear any permanent markings that could identify the bidder, their brand, or their product model. Non-compliance will result in the bid being declared non-responsive.

The Bidder must deliver the required bid technical deliverables at no charge to Canada and must ensure that they are received as requested in Annex D - Bid Technical Evaluation Plan (BTEP). During any solicitation phase, if any documentation is missing or incomplete, the Contracting Authority will inform the Bidder in writing and provide the Bidder with two (2) working days from the request to submit the missing documentation. Failure to submit the required bid technical deliverables within the specified timeframe will result in the bid being declared non-responsive.

The deliverables submitted by the Bidder will remain the property of Canada.

The requirement for bid technical deliverables will not relieve the successful bidder from submitting samples and supporting documentation as required by the contract terms or from strictly adhering to the technical requirement of this Request for Proposal and any resultant contract.

4.3 EVALUATION PROCEDURE AND BASIS OF SELECTION – TRIAL CONTRACT

4.3.1 TECHNICAL EVALUATION - PHASE B1

The bid technical deliverables for Phase B1 will be evaluated in accordance with Annex D – BTEP and Annex F – Bid Technical Evaluation Matrix (BTEM).

4.3.2 TECHNICAL EVALUATION - PHASE B2

Phase B2 will be completed solely on bids deemed compliant in Phase B1. The bid technical deliverables for Phase B2 will be evaluated in accordance with Annex D – BTEP and Annex F – BTEM.

4.3.3 FINANCIAL EVALUATION

4.3.3.1 MANDATORY FINANCIAL CRITERIA

- a) The Bidder must submit firm unit prices in Canadian dollars, for item numbers 1, 2, and 4 to 10 listed in Annex A - Requirement, all applicable taxes extra, DDP (Montréal, Québec and Edmonton, Alberta) Incoterms 2000, transportation costs included, all applicable Customs Duties and Excise taxes included.
- b) The Bidder must submit firm all-inclusive hourly rates for item number 3 for the five (5) years as specified at Annex A.
- c) The Bidder is requested to quote firm unit pricing at no more than two decimal points.

4.3.3.2 SAAC MANUAL CLAUSE

A9033T 2012/07/16 Financial Capability

4.3.3.3 FINANCIAL EVALUATION METHODOLOGY

For the purpose of establishing a bid evaluation price, the firm unit prices for item numbers 1 to 3 and 5 to 10 found in Annex "A" will be multiplied by the quantity of each item. The price for Year 1 and Year 2 will be averaged and multiplied by the quantity. The resultant total for all firm unit prices will be added together to establish the Total Bid Evaluation Price.

The quantity for evaluation purposes must not be interpreted as a guarantee of actual usage.

4.3.4 BASIS OF SELECTION-TRIAL CONTRACTS

- 1) A bid must comply with all requirements of the bid solicitation and meet all mandatory technical and financial evaluation criteria to be declared responsive.
- 2) The responsive bids with the highest combined rating of technical merit (i.e. Phase B1 and Phase B2) and price will be recommended for award of a Trial Contract (up to a maximum of two (2) contracts).
- 3) The overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 60%.
- 4) To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 40%.

- 5) For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
- 6) If a tie were to occur, the tiebreaker will be the highest combined rating of technical merit.
- 7) Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The table below illustrates an example where two bids are responsive and the selection of the bidder is determined by 60/40 ratio of technical merit and price, respectively. The total available points equal 135 and the lowest evaluated price is \$45,000 (45). This example is a hypothetical scenario and does not constitute actual requirements.

Basis of Selection - Highest Combined Rating			
Technical Merit (60%) and Price (40%)			
		Bidder 1	Bidder 2
Overall Technical Score		115/135	92/135
Bid Evaluated Price		\$55,000.00	\$45,000.00
Calculations	Technical Merit Score	115/135 x 60 = 51.11	92/135 x 60 = 40.89
	Pricing Score	45/55 x 40 = 32.73	45/45 x 40 = 40
Combined Rating		83.84	80.89
Overall Rating		1st	2nd

4.4 EVALUATION PROCEDURES AND BASIS OF SELECTION - MAIN CONTRACT

4.4.1 USER ACCEPTANCE PERFORMANCE EVALUATION - PHASE B3

The bid technical deliverable for Phase B3 delivered under the Trial Contracts will be used for a User Acceptance Performance Evaluation. The bid technical deliverables for Phase B3 will be evaluated in accordance with the Annex D – BTEP 131015, Annex E – UAPE Plan and Annex F - BTEM 131213.

4.4.2 BASIS OF SELECTION - MAIN CONTRACT

A bid must comply with all requirements of the bid solicitation and meet all mandatory technical and financial criteria to be declared responsive. At the end of Phase B3, the responsive bid with the largest sum of technical points scored in Phases B1, B2 and B3, would be recommended for award of the SBS contract. If a tie were to occur, the winner will be determined by choosing the bid that achieved the highest total aggregate technical score of Phases B1 and B2.

4.5 Contract Financial Security

1. If this bid is accepted, the Bidder may be required to provide contract financial security, after the bid closing date and within 10 calendar days from receipt of a written request from the Contracting Authority.
 - (a) a security deposit as defined in clause "Security Deposit Definition" in the amount of up to ten percent (10%) of the contract price.

2. Security deposits in the form of government guaranteed bonds with coupons attached will be accepted only if all coupons that are unmatured, at the time the security deposit is provided, are attached to the bonds. The Contractor must provide written instructions concerning the action to be taken with respect to coupons that will mature while the bonds are pledged as security, when such coupons are in excess of the security deposit requirement.
3. If Canada does not receive the required financial security within the specified period, Canada may, as its discretion, accept another offer, issue a new bid solicitation, award a contract or reject all the bids.

4.6 Security Deposit Definition

1. "security deposit" means
 - (a) a bill of exchange that is payable to the Receiver General for Canada, and certified by an approved financial institution or drawn by an approved financial institution on itself; or
 - (b) a Government guaranteed bond; or
 - (c) an irrevocable standby letter of credit, or
 - (d) such other security as may be considered appropriate by the Contracting Authority and approved by Treasury Board;
2. "approved financial institution" means
 - (a) any corporation or institution that is a member of the Canadian Payments Association;
 - (b) a corporation that accepts deposits that are insured by the Canada Deposit Insurance Corporation or the "Régie de l'assurance-dépôts du Québec" to the maximum permitted by law;
 - (c) a credit union as defined in paragraph 137(6) the *Income Tax Act*;
 - (d) a corporation that accepts deposits from the public, if repayment of the deposits is guaranteed by Canadian province or territory; or
 - (e) the Canada Post Corporation.
3. "government guaranteed bond" means a bond of the Government of Canada or a bond unconditionally guaranteed as to principal and interest by the Government of Canada that is:
 - (a) payable to bearer;
 - (b) accompanied by a duly executed instrument of transfer of the bond to the Receiver General for Canada in accordance with the *Domestic Bonds of Canada Regulations*;
 - (c) registered in the name of the Receiver General for Canada.
4. "irrevocable standby letter of credit"
 - (a) means any arrangement, however named or described, whereby a financial institution (the "Issuer"), acting at the request and on the instructions of a customer (the "Applicant"), or on its behalf,
 - (i) will make a payment to or to the order of Canada, as the beneficiary;
 - (ii) will accept and pay bills of exchange drawn by Canada;
 - (iii) authorizes another financial institution to effect such payment, or accept and pay such bills of exchange; or
 - (iv) authorizes another financial institution to negotiate, against written demand(s) for payment, provided that the conditions of the letter of credit are complied with.
 - (b) must state the face amount which may be drawn against it;
 - (c) must state its expiry date;

- (d) must provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by the authorized departmental representative identified in the letter of credit by his/her office;
- (e) must provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face amount of the letter of credit;
- (f) must provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision, ICC Publication No. 600. Pursuant to the ICC UCP, a credit is irrevocable even if there is no indication to that effect; and
- (g) must be issued (Issuer) or confirmed (Confirmer), in either official language, by a financial institution that is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed Declaration Form (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

5.1.2 Additional Certifications Required with the Bid

5.1.2.1 Canadian Content Certification

5.1.2.1.1 SACC Manual clause

[A3050T](#) (2014/11/27) Canadian Content Definition

Canadian Content Certification

This procurement is conditionally limited to Canadian goods.

Subject to the evaluation procedures contained in the bid solicitation, bidders acknowledge that only bids with a certification that the good(s) offered are Canadian goods, as defined in clause A3050T, may be considered.

Failure to provide this certification completed with the bid will result in the good(s) offered being treated as non-Canadian goods.

The Bidder certifies that:

() the good(s) offered are Canadian goods as defined in paragraph 1 of clause A3050T.

Plant Location

Items will be manufactured at: _____

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

5.2.1 Integrity Provisions – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex **Annex G - Federal Contractors Program for Employment Equity - Certification**, for each member of the Joint Venture.

5.2.3 Sample(s) and Production Certification

The Bidder certifies that:

- () the manufacturer that produced the pre-award sample(s) will remain unchanged for the pre-production sample(s) and full production of the contract quantity.

PART 6 – RESULTING TRIAL CONTRACT CLAUSES

The following clauses and conditions apply to and form part of the trial contract resulting from the bid solicitation.

6.1 Security Requirements

There is no security requirement applicable to this Contract.

6.2 Requirement

The Contractor must provide 21 sleeping bag systems proposed in the Contractor' bid dated (insert date) and supporting documentation in accordance with Annex D – BTEP 131015 to the following address:

Louis St-Laurent Building Complex
555 Boulevard des Carrières
Gatineau, Québec
J8Y 6V7
Attn: (to be advised at contract)

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

2030 (2015/09/03), General Conditions - Goods (Higher Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Delivery Date

The delivery of the Trial Quantity must be completed within forty-two (42) calendar days from the effective date of the Contract. Failure to submit the Trial Quantity within the specified time frame will be grounds for termination of the Contract for default.

6.4.2 Preparation for Delivery

All bid technical deliverables must not bear any permanent markings that could identify the bidder, their brand, or their product model. Non-compliance will result in the rejection of the goods.

6.4.3 Shipping Instructions - Delivery at Destination

1. Goods must be consigned to the destination specified in the Contract and delivered:
 - (a) Delivered Duty Paid (DDP) (Gatineau, Quebec) Inco terms 2000 for shipments from commercial contractor.

6.4.4 SACC Manual Clauses

D5545C 2010-08-16 ISO 9001:2008 - Quality Management Systems - Requirements (Quality Assurance Code C)

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Josette Richard

Public Works and Government Services Canada
Acquisitions Branch
Commercial and Consumer Products Directorate (CCPD)
Clothing & Textiles Division
Place du Portage, Phase III, 6A2
11 Laurier Street
Gatineau, Quebec K1A 0S5
Telephone : 613-462-4128 Facsimile: 819-956-5454
E-mail address: Josette.richard@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Technical Authority

The Technical Authority for this Contract is:

Mailing/Shipping Address

Department of National Defence
101 Colonel By Drive
Ottawa, Ontario
K1A 0K2
Attn: DSSPM _____ (to be advised at contract)

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Procurement Authority

The name of the Procurement Authority for the Contract is to be advised at contract award.

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.4 Contractor's Representative

The person responsible for :

General enquiries

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

Delivery follow-up

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

6.6 Payment

6.6.1 Basis of Payment – Firm Lot Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm lot price of \$21,000.00. Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.6.2 SACC Manual Clauses

H1000C 2008/05/12 Single Payment

6.7 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:

- (a) The original and one (1) copy must be forwarded to the following address for certification and payment:

National Defence Headquarters
MGen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attn: DLP (to be inserted at contract award)
Email: (to be inserted at contract award)

Note: The original invoice (PDF) can be emailed to (to be advised at contract award) and must be stamped with the word "ORIGINAL" and the other copies must be stamped with the words "COPY DO NOT PAY".

- (b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

6.8 Certifications

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.8.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

6.8.3 SACC Manual Clauses

A3060C 2008/05/12 Canadian Content Certification

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- a) the Articles of Agreement;
- b) the general conditions 2030 (2015/09/03), General Conditions - Goods (Higher Complexity);
- c) Annex A, Requirement;
- d) Annex B, Specifications;
- e) Annex C, Statement of Work;
- f) Annex D, Bid Technical Evaluation Plan (BTEP);
- g) Annex E, User Acceptance Performance Evaluation (UAPE) Plan;
- h) Annexe F, Bid Technical Evaluation Matrix (BTEM);
- i) the Contractor's bid dated (to be inserted at contract award).

6.11 Defence Contract

SACC Manual clause [A9006C](#) (2012/07/16) Defence Contract

6.12 Materials: Contrator Total Supply

The Contractor will be responsible for obtaining all materials required in the manufacture of the item(s) Specified. The delivery stated for the item(s) allows the necessary time to obtain such materials.

6.13 Plant Closing

The Contractor's plant closing for Christmas and Summer holidays are as follows. During this time there will be no shipments.

Solicitation No. - N° de l'invitation
W8486-151419/C
Client Ref. No. - N° de réf. du client
W8486-151419

Amd. No. - N° de la modif.
File No. - N° du dossier
pr760. W8486-151419

Buyer ID - Id de l'acheteur
pr760
CCC No./N° CCC - FMS No./N° VME

Christmas Holiday FROM _____ TO _____
Summer Holiday FROM _____ TO _____

6.14 Plant Location

Items will be manufactured at: _____

6.15 Subcontractor(s)

The following subcontractor(s) will be utilized in the performance of the contract.

Name of Company: _____

Location: _____

Value of subcontract: \$ _____

Nature of subcontracting work performed: _____

Subcontractors, other than those listed above, may not be utilized without the written permission of Canada.

6.16 Overshipment

Overshipment will not be accepted unless prior approval is obtained from the Contracting Authority.

PART 7 - RESULTING MAIN CONTRACT CLAUSES

The following clauses and conditions apply to and form part of the main contract resulting from the bid solicitation.

7.1 SECURITY REQUIREMENT

There is no security requirement applicable to this Contract.

7.2 REQUIREMENT

The Contractor must provide the items detailed under the "Requirement" at Annex "A".

7.3 STANDARD CLAUSES AND CONDITIONS

All instructions, clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.3.1 General Conditions

2030 (2015/09/03), General Conditions - Goods (Higher Complexity) apply to and form part of the Contract.

7.3.1.1 Warranty Period

Subsection 22 of 2030, General Conditions, "Warranty" is amended as follows:

Delete: twelve (12) months

Insert: sixty (60) months

7.4. TERM OF CONTRACT

7.4.1 Delivery Date

Delivery - Firm Quantity – Item 1

Delivery must be completed within 24 months from the date of the written notice of approval of pre-production samples.

The first delivery must be made within ____ calendar days from the date of the written notice of approval of pre-production samples. The quantity delivered must be ____ units. The balance must be delivered at a minimum rate of ____ unit weekly after the first delivery until completion of the Contract.

7.4.1.1 Delivery - Appointments

The Contractor must make deliveries to Canadian Forces (CF) Supply Depots by appointment only. The Contractor or its carrier must arrange delivery appointments by contacting the Depot Traffic Section at the appropriate location shown below. The consignee may refuse shipments when prior arrangements have not been made.

- a) 7 CF Supply Depot Lancaster Park
Edmonton, Alberta
780-973-4011, ext. 4524

- b) 25 CF Supply Depot Montreal
Montreal, Québec
514-252-2777, ext. 2363

7.4.1.2 Preparation for Delivery

The Contractor must prepare item numbers 1, 2 and 4 to 10 for delivery in accordance with the latest issue of the Canadian Forces Packaging Specification D-LM-008-036/SF-000, DND Minimum Requirements for Manufacturer's Standard Pack.

The Contractor must package item numbers 1, 2 and 4 to 10 in quantities of up to 25 each package.

7.4.1.3 Shipping Instructions - Delivery at Destination

1. Goods must be consigned to the destination specified in the Contract and delivered:

- (a) Delivered Duty Paid (DDP) (Montréal, Québec and Edmonton, Alberta) Incoterms 2000 for shipments from commercial contractor.

7.4.2 SACC Manual Clauses – Packaging and Labelling

D2001C	2007/11/30	Labelling
D2017C	2008/05/12	Bar Coding – Material Marking
D2025C	2013/11/06	Wood Packaging Materials
D5510C	2012/07/16	Quality Assurance Authority (DND) - Canadian-based Contractor
D6010C	2007/11/30	Palletization
B7010C	2008/05/12	Marking and Labelling

7.4.3 SACC Manual Clauses – Quality Assurance

D5515C	2010/01/11	Quality Assurance Authority (DND) - Foreign-based and United States Contractor
D5540C	2010/08/16	ISO 9001:2008 - Quality Management Systems - Requirements (QAC Q)
D5604C	2008/12/12	Release Documents (DND) - Foreign-based Contractor
D5605C	2010/01/11	Release Documents (DND) - United States-based Contractor
D5606C	2012/07/16	Release Documents (DND) - Canadian-based Contractor

7.5 AUTHORITIES

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Josette Richard

Public Works and Government Services Canada
Acquisitions Branch
Commercial and Consumer Products Directorate (CCPD)
Clothing & Textiles Division
Place du Portage, Phase III, 6A2
11 Laurier Street
Gatineau, Quebec K1A 0S5
Telephone : 613-462-4128 Facsimile: 819-956-5454

E-mail address: josette.richard@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

7.5.2 Technical Authority

The Technical Authority for this Contract is:

Mailing/Shipping Address

Department of National Defence
101 Colonel By Drive
Ottawa, Ontario
K1A 0K2

Attn: DSSPM (to be advised at contract)

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.3 Procurement Authority

The name of the Procurement Authority for the Contract is to be advised at contract.

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.4 Contractor's Representative

The person responsible for:

Project Manager

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

Delivery follow-up

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

7.6. PAYMENT

7.6.1 Basis of Payment - Firm Unit Prices and Firm Hourly Rates

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices and firm hourly rates, as specified in Annex A for a cost of \$(amount to be inserted at contract award). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.6.2 SACC Manual Clauses

H1001C 2008/05/12 Multiple Payments

7.7 INVOICING INSTRUCTIONS

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

2. Invoices must be distributed as follows:

(a) One (1) copy must be forwarded to the following address for certification and payment :

National Defence Headquarters
MGen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attn: DLP (to be advised at contract award)
Email: (to be advised at contract award)

(b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

(c) The original and one (1) copy must be forwarded to the consignee.

7.7.1 Release Documents – Distribution

The Contractor must prepare the release documents in a current electronic format and distribute them as follows:

- (a) One (1) copy mailed to consignee marked: "Attention: Receipts Officer";
- (b) Two (2) copies with shipment (in a waterproof envelope) to the consignee;
- (c) One (1) copy to the Contracting Authority;
- (d) One (1) copy to:

National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attention: (to be advised at contract award)
Email: (to be advised at contract award)

- (e) One (1) copy to the Quality Assurance Representative;
- (f) One (1) copy to the Contractor; and
- (g) For all non-Canadian contractors, one (1) copy to:

DQA/Contract Administration
National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel by Drive
Ottawa, ON K1A 0K2
E-mail: ContractAdmin.DQA@forces.gc.ca

7.8 CERTIFICATIONS

7.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

7.8.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

7.8.3 SACC Manual Clauses

A3060C 2008/05/12 Canadian Content Certification

7.9 APPLICABLE LAWS

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

7.10 PRIORITY OF DOCUMENTS

If there is a discrepancy between the wordings of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- a. the Articles of Agreement;
- b. the general conditions 2030 (2015/09/03), General Conditions - Goods (Higher Complexity);
- c. Annex A, Requirement;
- d. Annex B, Specifications;
- e. Annex C, Statement of Work;
- f. the Contractor's bid dated (insert date).

7.11 DEFENCE CONTRACT

SACC Manual Clause A9006C (2012/07/16) Defence Contract

7.12 SACC MANUAL CLAUSES

C2800C 2013/01/28 Priority Rating
C2801C 2011/05/16 Priority Rating - Canadian-based Contractors

7.13 MATERIALS: CONTRACTOR TOTAL SUPPLY

The Contractor will be responsible for obtaining all materials required in the manufacture of the item(s) specified. The delivery stated for the items allows the necessary time to obtain such materials.

7.14 PROCEDURES FOR DESIGN CHANGE

The Contractor must follow these procedures for any proposed design change/deviation to contract specifications.

The Contractor must complete Part 1 of DND form 672 (found at Annex I) and forward one (1) copy to the Technical Authority and one (1) copy to the Contracting Authority.

The Contractor will be authorized to proceed upon receipt of the design change/deviation form signed by the Contracting Authority. A contract amendment will be issued to incorporate the design change/deviation in the Contract.

7.15 PLANT CLOSING

The Contractor's plant closing for Christmas and summer holidays are as follows. During this time there will be no shipments.

2016-2017

Summer Holiday	FROM _____	TO _____
Christmas Holiday	FROM _____	TO _____

2017-2018

Summer Holiday	FROM _____	TO _____
Christmas Holiday	FROM _____	TO _____

2018-2019

Summer Holiday	FROM _____	TO _____
Christmas Holiday	FROM _____	TO _____

2019-2020

Summer Holiday	FROM _____	TO _____
Christmas Holiday	FROM _____	TO _____

2020-2021

Summer Holiday	FROM _____	TO _____
Christmas Holiday	FROM _____	TO _____

7.16 PLANT LOCATION

Items will be manufactured at: _____

7.17 SUBCONTRACTOR(S)

The following subcontractor(s) will be utilized in the performance of the contract.

Name of Company: _____

Location: _____

Value of subcontract: \$ _____

Nature of subcontracting work performed: _____

Subcontractors, other than those listed above, may not be utilized without the written permission of Canada.

7.18 OVERSHIPMENT

Overshipment will not be accepted unless prior approval is obtained from the Contracting Authority.

7.19 QUALITY PLAN

No later than 120 days after the effective date of the Contract, the Contractor must submit for acceptance by the Department of National Defence (DND) a Quality Plan prepared according to the latest issue (at contract date) of ISO 10005:2005 "Quality management systems - Guidelines for quality plans". The Quality Plan must describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of subcontractors. The Contractor must include a traceability matrix from the elements of the specified quality requirements to the corresponding paragraphs in the Quality Plan.

The documents referenced in the Quality Plan must be made available when requested by Public Works and Government Services Canada or DND.

If the Quality Plan was submitted as part of the bidding process, the Contractor must review and, where appropriate, revise the submitted plan to reflect any changes in requirements or planning which may have occurred as a result of pre-contract negotiations.

Upon acceptance of the Quality Plan by DND, the Contractor must implement the Quality Plan. The Contractor must make appropriate amendments to the Quality Plan throughout the term of the contract to reflect current and planned quality activities. Amendments to the Quality Plan must be acceptable to DND.

7.20 POST CONTRACT AWARD MEETING

The Technical Authority at National Defence Headquarters and the applicable DND Quality Assurance Representative (DNDQAR) must be afforded access to the Contractor's plant and all other premises where pertinent processes are being performed, on the same basis as afforded the representative of National Defence Headquarters, DGQA.

A post contract award meeting may be convened within twenty (20) calendar days after award of contract. Participants may include representatives of the Contractor, DND Technical Authority, DNDQAR, Contracting Authority and the DND Procurement Authority. Other meetings may be convened as required.

The Contractor is responsible for the recording and distribution of the minutes for all contract related meeting. The minutes must be sent to the Contracting Authority for acceptance prior to the distribution to all participants or as otherwise directed in the contract within ten (10) calendar days of the subject meeting. The minutes must be used only as a record of proceedings.

7.21 PRE-PRODUCTION DELIVERABLES

1. The Contractor must provide pre-production deliverables as per Annex C – Statement of Work 131007 to the Technical Authority for acceptance within 120 calendar days from date of contract award.
2. If the pre-production deliverables are rejected, the Contractor must submit second pre-production deliverables within 30 calendar days of notification of rejection from the Technical Authority.

3. If the pre-production deliverables are accepted by either full acceptance or conditional acceptance, the Contractor must proceed with production as per the Contract requirements.
4. Rejection by the Technical Authority of the second pre-production deliverables submitted by the Contractor for failing to meet the contract requirements will be grounds for termination of the Contract for default.
5. The Contractor must carry out all required inspection and tests to verify conformance to the technical requirements of the Contract.
6. The Contractor must provide the pre-production deliverables to the Technical Authority, transportation charges prepaid, and without charge to Canada.
7. The Contractor must return the reference samples to the sender at no charge to Canada within fifteen (15) days of the acceptance of Pre-Production Samples.
8. The pre-production deliverables submitted by the Contractor will remain the property of Canada.
9. The Technical Authority will notify the Contractor, in writing, of the full acceptance, conditional acceptance, or rejection of the pre-production deliverables. A copy of this notification will also be provided by the Technical Authority to the Contracting Authority. The notice of the full acceptance or conditional acceptance does not relieve the Contractor from complying with all requirements and conditions of the Contract.
10. The Contractor must not commence or continue with production of the items and must not make any deliveries until the Contractor has received a written notification from the Technical Authority that the pre-production deliverables is/are fully acceptable or conditionally acceptable. Any production of items before pre-production sample acceptance will be at the sole risk of the Contractor.
11. The pre-production deliverables may not be required if the Contractor is currently in production. The request for waiver of pre-production deliverables must be made by the Contractor in writing to the Contracting Authority. The waiving of this requirement will be at the sole discretion of the Technical Authority and will be evidenced through a contract amendment.

7.22 FINANCIAL SECURITY

1. Canada may convert the security deposit to the use of Canada if any circumstance exists which would entitle Canada to terminate the Contract for default, but any such conversion will not constitute termination of the Contract.
2. Where Canada so converts the security deposit:
 - (a) the proceeds will be used by Canada to complete the Work according to the conditions of the Contract, to the nearest extent that it is feasible to do so and any balance left will be returned to the Contractor on completion of the warranty period; and
 - (b) if Canada enters into a Contract to have the Work completed, the Contractor will:
 - (i) be considered to have irrevocably abandoned the Work; and

(ii) remain liable for the excess cost of completing the Work if the amount of the security deposit is not sufficient for such purpose. "Excess cost" means any amount over and above the amount of the Contract Price remaining unpaid together with the amount of the security deposit.

3. If Canada does not convert the security deposit to the use of Canada before completion of the contract period, Canada will return the security deposit to the Contractor within a reasonable time after such date.

4. If Canada converts the security deposit for reasons other than bankruptcy, the financial security must be reestablished to the level of the amount stated above so that this amount is continued and available until completion of the contract period.

DRAFT RFP

ANNEX "A" - REQUIREMENT

A.1 TECHNICAL REQUIREMENT

The Contractor is required to provide Canada for the Department of National Defense (DND) with Sleeping Bag Systems in accordance with ANNEX B – Specification and ANNEX C – Statement of Work.

A.2 ADDRESSES

Destination Address	Invoicing Address
WB941 Department of National Defense 25 CFSD Montreal 6363 Notre Dame St. E. Montreal, Quebec H1N 1V9	W1941 Department of National Defense CFSD Montreal P.O. Box 4000 Stn K Montreal, Quebec H1N 3R9 Attention: Accounts payable
W248A Department of National Defense 7 CF Supply Depot 195 Ave & 82nd St., Bldg. 236 Edmonton, Alberta T5J 4J5	W2481 Department of National Defense 7 CF Supply Depot Stn Forces, P.O. Box 10500 Edmonton, Alberta T5J 4J5 Attention: Accounts payable

A.3 DELIVERABLES

Year 1: If exercised (ordered) within 12 months from contract award date.
Year 2: If exercised (ordered) between 13 to 24 months from contract award date.
Year 3: If exercised (ordered) between 25 to 36 months from contract award date.
Year 4: If exercised (ordered) between 37 to 48 months from contract award date.
Year 5: If exercised (ordered) between 49 to 60 months from contract award date.

A.3.1 CONTRACT

A.3.1.1 Firm Quantity

Item	Description	Unit of Issue	Destination	Firm Qty	Firm Unit Price, DDP, Transportation costs included, Applicable taxes extra
1	Sleeping Bag System (inclusive of all sleeping modules, manuals and storage bags)	Each	Edmonton	4,000	\$ _____
			Montreal	6,000	\$ _____

A.3.1.2 "As and When" Requested

A.3.1.2.1 Special sizes

Item	Description	Unit of Issue	Destination	Quantity for evaluation purposes	Firm Unit Price, DDP, Transportation costs included, Applicable taxes extra	
					Year 1	Year 2
2	Sleeping Bag System Special Size (inclusive of all sleeping modules, manuals, and storage bags)	Each	Montreal, QC or Edmonton, AB	125	\$ _____	\$ _____

A.3.1.2.2 Labour and Design Improvement Services

Item 3	Category of personnel	Firm Hourly Rate				
		Year 1	Year 2	Year 3	Year 4	Year 5
3a)		\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
3b)		\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
3c)		\$ _____	\$ _____	\$ _____	\$ _____	\$ _____
Etc...						

A.3.1.2.3 User Replaceable Parts (if applicable)

User Replaceable Parts proposed by the Contractor are as follows:

Item	Description	Unit of Issue	Firm Unit Price, DDP, Transportation costs included, Applicable taxes extra	
4	User Replaceable Parts		Year 1	Year 2
4a)			\$ _____	\$ _____
4b)			\$ _____	\$ _____
4c)			\$ _____	\$ _____
4d)			\$ _____	\$ _____
Etc...				

A.3.1.3 OPTIONS

Item	Description	Quantity for evaluation purposes	Unit of Issue	Firm Unit Price, DDP, Transportation costs included, Applicable taxes extra	
				Year 1	Year 2
5	Sleeping Bag Systems (inclusive of all sleeping modules)	5,000	each	\$ _____	\$ _____
6	Spare Module A (Liner)	6,000	each	\$ _____	\$ _____
7	Spare Module B	2,000	each	\$ _____	\$ _____
8	Spare Module C	2,000	each	\$ _____	\$ _____
9	Spare Module D (if applicable)	2,000	each	\$ _____	\$ _____
10	Spare Module E (if applicable)	2,000	each	\$ _____	\$ _____

A.3.2. FIRM UNIT PRICES (for years 3, 4 and 5)

For special sizes (item 2), user replaceable parts (item 4) and if the option to purchase additional quantities (item 5 to 10) are exercised, the Contractor agrees that, for year 3, 4 and 5, the firm unit prices (increases or decreases) will be adjusted in accordance with Statistics Canada's average Consumer Price Index (CPI) (all items) for municipalities in Canada for the municipality closest to the Contractor's facility. The adjustment will be made annually, based on the average of the CPI of the most recently reported twelve-month period using the firm unit prices of the previous year.

A.4. AS AND WHEN REQUESTED (identified as Item 2, 3 and 4)

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization. The Work described in the Task Authorization must be in accordance with the scope of the Contract. The period for placing "as and when requested" orders will be within 60 months from contract award date.

Order Limitation

The Procurement Authority may authorize individual task authorizations up to a limit of \$50,000.00, Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of that limit must be authorized by the Contracting Authority before issuance.

Financial Limitation

The total cost to Canada resulting from orders of "as and when requested" quantities must not exceed the sum of \$(to be established at contract award), applicable taxes extra, unless otherwise authorized in writing by the Contracting Authority. The Contractor must not be obligated to perform any work or services or supply any articles in response to orders which would cause the total cost to Canada to exceed the said sum, unless an increase is so authorized.

Delivery

The delivery of the "as and when requested" quantities for special size must be made within 45 calendar days after receipt of the order document.

Task Authorization Process

The administration of the Task Authorization process will be carried out by the Procurement Authority. This process includes monitoring, controlling and reporting on expenditures of the contract with task authorizations to the Contracting Authority.

1. The Technical Authority will define the task in a Statement of Work and provide it to the Procurement Authority.
2. The Procurement Authority will provide the Contractor with a description of the task using the "DND 626, Task Authorization Form" found at Annex H.
3. The Task Authorization will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The Task Authorization will also include the applicable basis (bases) and methods of payment as specified in the Contract.
4. The Contractor must provide the Procurement Authority, within 5 calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.
5. The Contractor must not commence work until a Task Authorization authorized by the Procurement Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a Task Authorization has been received will be done at the Contractor's own risk.

A.5. OPTION QUANTITIES - Identified as Item numbers 5 to 10

The Contractor grants to Canada the irrevocable option to order the goods described under item numbers 5 to 10 and under the same terms and conditions and at the prices stated in the Contract.

The minimum order required when exercising the option to purchase additional quantities of sleeping bag systems is 4,000 units. The minimum order required when exercising the option to purchase additional individual modules is 1,000 units of the same type of module. The maximum value for all amendments combined must not exceed \$ (to be advised at contract award) excluding applicable taxes.

Options will be evidenced through a contract amendment which may only be exercised by the Contracting Authority within 60 months after contract award date by sending a written notice to the Contractor. Multiple amendments may result.

A size roll will be provided if and when the option is exercised.

Delivery times of the option quantities will be negotiated at the time that the option is exercised.

NOTICE:

This document has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.



AVIS:

Ce document a été révisé par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçus à l'origine avec le document continuent de s'appliquer.

ANNEX B

DRAFT

DIRECTORATE OF SOLDIER SYSTEMS
PROGRAM MANAGEMENT



SPECIFICATION 130906
FOR SLEEPING BAG SYSTEM



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ANNEX B

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1 SCOPE

1.1 SUBJECT

- 1.1.1 This Specification defines the requirements for a Canadian Armed Forces Sleeping Bag System.

1.2 BACKGROUND

- 1.2.1 During field operations, the Sleeping Bag System will be used by Canadian Armed Forces personnel operating in consistently changing terrain, in subtropical, temperate, and polar conditions. The Sleeping Bag System will be used with the in-service Self-Inflating Mattress to provide protection and insulation from the ground. The Sleeping Bag System may also be used with the in-service Bivy Bag for added protection from the elements. To carry the Sleeping Bag System, personnel will pack it in the in-service Waterproof Compression Sack.

1.3 OBJECTIVES

- 1.3.1 The Sleeping Bag System must be man-portable, comfortable, and fit for the functions required by a Canadian Armed Forces Soldier. To enhance portability and comfort, the soldier should be able to configure the Sleeping Bag System to the conditions they will most likely face on a mission, thus minimizing weight and bulk while retaining as much comfort as possible. To ensure ease of use, the Soldier should be able to understand the function of the system and its components and adjust them as easily as possible. Furthermore the Soldier should be able to maintain the performance of the Sleeping Bag System as easily as possible through efficient and robust construction, and simple cleaning procedures.

1.4 TERMINOLOGY

- | | | |
|--------|--------|---|
| 1.4.1 | CAG | Canadian Average Green, as specified by the Department of National Defence (DND). |
| 1.4.2 | CIELAB | The International Commission on Illumination [<i>Commission internationale de l'éclairage</i>] 1976 L*a*b* colourspace. |
| 1.4.3 | DND | Department of National Defence (Canada). |
| 1.4.4 | DSSPM | (DND) Directorate of Soldier Systems Program Management. |
| 1.4.5 | NATO | North Atlantic Treaty Organization. |
| 1.4.6 | NCAGE | NATO Commercial and Government Entity (code or number). |
| 1.4.7 | NSN | NATO Stock Number. |
| 1.4.8 | s. | Section. Refers to a numbered section or paragraph in this document or another referenced document. |
| 1.4.9 | SBS | Sleeping Bag System. |
| 1.4.10 | | In the event of inconsistency within this Specification, including inconsistency between languages, the Design Authority, DSSPM 3-5-6, must be contacted for clarification. |

2 APPLICABLE DOCUMENTS

- 2.1 In the event of a conflict between the text of this document and any references or samples cited herein, the text of this document will take precedence.



2.2 NATIONAL DEFENCE PUBLICATIONS

- 2.2.1 The following publications form part of this document to the extent specified herein. Unless specified otherwise, the effective date of the publications will be those in effect on the date of the Solicitation. Copies of this document and the publications below may be ordered by contacting the Contracting Authority.
- 2.2.1.1 D-LM-008-002/SF-001 Specification for Marking for Storage and Shipment.
- 2.2.1.2 D-LM-008-036/SF-000 Department of National Defence Minimum Requirements for Manufacturer's Standard Pack.
- 2.2.1.3 QETE TM 151207 Test Method for Measuring the Drying Time of a Sleeping Bag Liner (Appendix B1 to Annex B).

2.3 NATIONAL DEFENCE SAMPLES

- 2.3.1 The following samples will be available to Bidders and Contractors for guidance only. Under no circumstance are these samples to be mutilated or cut.

2.3.2 Sealed Samples

- 2.3.2.1 Sealed Samples are duplicates of the Master Sealed Sample. The Master Sealed Sample is the Department of National Defence prototype that embodies the characteristics required in production. Sealed Samples will be available for examination by Bidders at Public Works and Government Services Canada regional offices.
- 2.3.2.1.1 Sealed Pattern DSSPM 281-01 for Canadian Average Green (CAG).

2.3.3 Reference Samples

- 2.3.3.1 Samples of the following items will be available for loan to Bidders upon request to the Contracting Authority during the Solicitation period.
- 2.3.3.1.1 8465-20-001-2698 BAG, PROTECTIVE, SLEEPING BAG (Waterproof Compression Sack).
- 2.3.3.1.2 8465-21-907-9549 CARRYING BAG, MATTRESS (Self-Inflating Mattress Carrying Bag).
- 2.3.3.1.3 8465-21-907-9550 MATTRESS, PNEUMATIC, SELF-INFLATING (Self-Inflating Mattress). Bidders will be provided with 2 samples, in case of air leaks.
- 2.3.3.1.4 8465-20-001-3130 RUCKSACK, INTERNAL FRAME (CTS Rucksack). The Rucksack will be provided without its removable Harness (shoulder straps and hip belt) and Accessory Pouches.
- 2.3.3.1.5 8465-20-007-2648 SLEEPING BAG CASE (Medium TW Bivy Bag).
- 2.3.3.1.6 SLEEPING SYSTEM (1965). The 1965 SLEEPING SYSTEM **does not** meet the requirements of this Specification, but might provide Bidders with insight into what the Canadian Armed Forces have used in the past:
- 2.3.3.1.6.1 8465-21-842-6081 HOOD, SLEEPING BAG (1965 Sleeping Bag Hood);
- 2.3.3.1.6.2 8465-21-842-6080 LINER, SLEEPING BAG (1965 Sleeping Bag Liner);
- 2.3.3.1.6.3 8465-21-842-6079 SLEEPING BAG (1965 Sleeping Bag Inner);
- 2.3.3.1.6.4 8465-21-842-6078 SLEEPING BAG (1965 Sleeping Bag Outer).



2.4 OTHER PUBLICATIONS

2.4.1 The following publications form part of this document to the extent specified herein. Unless specified otherwise, the effective date of the publications will be those in effect on the date of the Solicitation. The following publications are not supplied by the Department of National Defence.

2.4.2 American Association of Textile Chemists and Colorists (AATCC)

2.4.2.1 1 Davis Drive
PO Box 12215
Research Triangle Park, North Carolina
USA 27709-2215
tel: 919-549-8141
email: jonesb@aatcc.org
url: <http://www.aatcc.org>

2.4.2.1.1 AATCC Test Method 16.3-2012 Colorfastness to Light: Xenon Arc.

2.4.2.1.2 AATCC Test Method 30-2013 Antifungal Activity, Assessment on Textile Materials: Mildew and Rot Resistance of Textile Materials.

2.4.2.1.3 AATCC Test Method 76-2011 Electrical Surface Resistivity of Fabrics.

2.4.2.1.4 AATCC Test Method 96-2012 Dimensional Changes in Commercial Laundering of Woven and Knitted Fabrics except Wool.

2.4.2.1.5 AATCC Test Method 118-2013 Oil Repellency: Hydrocarbon Resistance Test.

2.4.3 ASTM International

2.4.3.1 100 Barr Harbor Drive
PO Box C700
West Conshohocken, Pennsylvania
USA 19428-2959
tel: 610-832-9500
email: service@astm.org
url: <http://www.astm.org>

2.4.3.1.1 ASTM D471-12a Standard Test Method for Rubber Property – Effect of Liquids.

2.4.3.1.2 ASTM E4 Standard Practices for Force Verification of Testing Machines.

2.4.3.1.3 ASTM F1720-06 Standard Test Method for Measuring Thermal Insulation of Sleeping Bags Using a Heated Manikin.

2.4.3.1.4 ASTM F1853-11 Standard Test Method for Measuring Sleeping Bag Packing Volume.

2.4.3.1.5 ASTM F1955-99 Standard Test Method for Flammability of Sleeping Bags.

2.4.4 Canadian General Standards Board (CGSB)

2.4.4.1 11 Laurier Street
Place du Portage, Phase III
Hull, Québec
Canada K1A 1G6
tel: 819-956-0425
email: ncr.cgsb-ongc@tpsgc-pwgsc.gc.ca
url: <http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb>

2.4.4.2 The following CGSB documents can be ordered online here:
<http://www.techstreet.com/cgsbgate.html>



ANNEX B

- 2.4.4.3 They can also be viewed in English at the CGSB depository libraries listed here:
<http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/certification/depo-eng.html>
- 2.4.4.3.1 CAN/CGSB-3.6-2010 Off-Road Diesel Fuel.
- 2.4.4.3.2 CAN/CGSB-4.2 Textile Test Methods:
- 2.4.4.3.2.1 No. 0-2001 Moisture Regain Values, SI Units Used in CAN/CGSB-4.2 and Fibre, Yarn, Fabric, Garment and Carpet Properties.
- 2.4.4.3.2.2 No. 5.1-M90 Unit Mass of Fabrics.
- 2.4.4.3.2.3 No. 9.1-M90 Breaking Strength of Fabrics – Strip Method – Constant-time-to-break Principle.
- 2.4.4.3.2.4 No. 9.2-M90 Breaking Strength of Fabrics – Grab Method – Constant-time-to-break Principle.
- 2.4.4.3.2.5 No. 11.1-94 Bursting Strength – Diaphragm Pressure Test.
- 2.4.4.3.2.6 No. 12.1-M90 Tearing Strength – Single-rip Method.
- 2.4.4.3.2.7 No. 15-95 Non-Fibrous Materials on Textiles.
- 2.4.4.3.2.8 No. 19.1-2004 Colourfastness to Washing – Accelerated Test – Launder-Ometer.
- 2.4.4.3.2.9 No. 22-2004 Colourfastness to Rubbing (Crocking).
- 2.4.4.3.2.10 No. 23-M90 Colourfastness to Perspiration.
- 2.4.4.3.2.11 No. 26.2-94 Determination of Resistance of Surface Wetting (Spray Test).
- 2.4.4.3.2.12 No. 27.5-2008 Flame Resistance – 45° Angle Test – One Second Flame Impingement.
- 2.4.4.3.2.13 No. 32.1-98 Resistance of Woven Fabrics to Seam Slippage.
- 2.4.4.3.2.14 No. 36-M89 Air Permeability.
- 2.4.4.3.2.15 No. 41-M91 Standard Light Sources for Colour Matching of Textiles.
- 2.4.4.3.2.16 No. 51.2-M87 Resistance to Pilling – Random Tumble Pilling Tester.
- 2.4.4.3.2.17 No. 58-2004 Dimensional Change in Domestic Laundering of Textiles.
- 2.4.4.3.2.18 No. 74-2011 Textiles – Determination of pH of the Aqueous Extract.
- 2.4.4.3.3 CAN/CGSB-15.19-92 Insect Repellent Diethyltoluamide.
- 2.4.4.3.4 CAN/CGSB-86.1-2003 Care Labelling of Textiles.
- 2.4.4.3.5 CAN/CGSB-155.20-2000 Workwear for Protection against Hydrocarbon Flash Fire.

2.4.5 GS1 Canada

- 2.4.5.1 GS1 Canada
1500 Don Mills Road, Suite 800
Toronto, Ontario M3B 3L1
tel: 416-510-8039
email: info@gs1ca.org
url: <http://www.gs1ca.org>
- 2.4.5.1.1 GS1 General Specifications, Version 13.1, Jul 2013.
<http://www.gs1.org/genspecs>



2.4.6 International Down and Feather Bureau (IDFB)

2.4.6.1 International Down and Feather Bureau
Josef Huter Strasse 31
6900 Bregenz
Austria
tel: +43 5574 5252516
email: idfb@idfb.net
url: <http://www.idfb.net>

- 2.4.6.1.1 IDFB Testing Regulations 2010
 - 2.4.6.1.1.1 Part 02 Sampling.
 - 2.4.6.1.1.2 Part 03 Composition (Content Analysis).
 - 2.4.6.1.1.3 Part 04 Oil and Fat Content.
 - 2.4.6.1.1.4 Part 06 Acidity (pH Value).
 - 2.4.6.1.1.5 Part 07 Oxygen Number.
 - 2.4.6.1.1.6 Part 11-A Turbidity (with Automated NTU Meter).

2.4.7 International Down and Feather Laboratory (IDFL)

2.4.7.1 IDFL Headquarters
1455 South 1100 East
Salt Lake City, Utah
USA 84105
tel: 801-467-7611
email: info@idfl.com
url: <http://www.idfl.com>

- 2.4.7.1.1 IDFL Test Method 30(JAN-2010) Comprehensive Odor Evaluation.

2.4.8 ISO (International Organization for Standardization)

- 2.4.8.1 ISO Central Secretariat
1, ch. de la Voie-Creuse
CP 56 - CH-1211 Geneva 20
Switzerland
tel: +41 22 749 01 11
email: central@iso.org
url: <http://www.iso.org>
 - 2.4.8.1.1 ISO 12947-2:1998 Textiles – Determination of the abrasion resistance of fabrics by the Martindale method – Part 2: Determination of specimen breakdown.
 - 2.4.8.1.2 ISO 20743:2013 Textiles – Determination of antibacterial activity of antibacterial finished products.
 - 2.4.8.1.3 ISO 6330:2000 Textiles – Domestic washing and drying procedures for textile testing.



2.4.9 National Fire Protection Association (NFPA)

2.4.9.1 National Fire Protection Association
11 Tracy Drive
Avon, Massachusetts
USA 02322
tel: 617-770-3000
email: custserv@nfpa.org
url: <http://www.nfpa.org>

2.4.9.1.1 NFPA 1975 Standard on Station/Work Uniforms for Emergency Services 2014 edition.

2.4.10 Society of Automotive Engineers (SAE)

2.4.10.1 SAE World Headquarters
400 Commonwealth Drive
Warrendale, Pennsylvania
USA 15096-0001
tel: 724-776-4970
email: customerservice@sae.org
url: <http://www.sae.org>

2.4.10.1.1 SAE J1966-201108 Lubricating Oils, Aircraft Piston Engine (Non-Dispersant Mineral Oil).

3 REQUIREMENTS

3.1 SYSTEM DESIGN

3.1.1 The proposed Sleeping Bag System does not require a bivy bag, compression sack, or mattress because the function of these items will be fulfilled by Canadian Armed Forces equipment currently in service.

3.1.2 Modularity

3.1.2.1 The Sleeping Bag System must be a modular system of 3 or more separate, but compatible, pieces. These separate pieces will be referred to as "Sleeping Modules". Although the Sleeping Modules could be interpreted as layers, the term "layer" will be reserved for describing individual layers of material used within a single Sleeping Module. The Sleeping Bag System will thus allow the user to choose which Sleeping Module(s) to use based on environmental and tactical conditions.

3.1.3 Coverage

3.1.3.1 Each thermal configuration specified in s. 3.2.1.3 must be configurable to cover the user's entire body, other than the area around their mouth and nose. The opening for the user's mouth and nose must be configurable to a diameter of 14 cm or less.

3.1.4 Sizing

3.1.4.1 STANDARD SIZES

3.1.4.1.1 The Sleeping Bag System (SBS) must be available in the following sizes to comfortably fit users that have the following body dimensions. The following body dimensions are without clothing, footwear, and equipment.



	SBS Size Name	User Stature Range	User Chest Circ.* Average	User Chest Circ.* Range	User Hip Circ.* Average	User Hip Circ.* Range	User Foot Length Average	User Foot Length Range
3.1.4.1.1.1	5'6"	60"...66"	40"	34"...48"	40"	34"...48"	10.5"	8.5"...12.0"
3.1.4.1.1.2	6'0"	66"...72"	42"	34"...52"	41"	34"...50"	11.5"	8.5"...13.0"
3.1.4.1.1.3	6'6"	72"...78"	44"	36"...52"	43"	38"...50"	12.0"	9.5"...13.5"

3.1.4.2 SPECIAL SIZES

3.1.4.2.1 Special sizes outside the standard size ranges must be available to be made to order as and when requested. Actual user dimensions will be provided with each special size ordered.

3.1.5 Colour

3.1.5.1 Unless specified otherwise, all visible surfaces of the outer shell fabrics of the Sleeping Bag System must be a good visual match to Canadian Average Green, in accordance with Sealed Sample DSSPM 281-01.

3.1.5.2 Unless specified otherwise, the colours of all other visible surfaces of the Sleeping Bag System must be Canadian Average Green or must have a low visual contrast with Canadian Average Green (e.g. black and dark grey are acceptable).

3.1.5.3 The colour(s) of all visible surfaces of the Sleeping Bag System must be approved by the Technical Authority prior to Production.

3.1.5.4 All visual colour-matching to Sealed Samples must be done in accordance with CAN/CGSB-4.2 No. 41 Standard Light Sources for Colour Matching of Textiles. A colour match under North-sky daylight is required. Metamerism must be no greater than that exhibited by the Sealed Sample.

3.1.5.5 CANADIAN AVERAGE GREEN

3.1.5.5.1 For reference purposes, the CIE 1976 L*a*b* (CIELAB) colourspace coordinates for Canadian Average Green, using illuminant D65, 10° observer are:

		L*	a*	b*
3.1.5.5.1.1	Canadian Average Green	26.88	-3.27	16.26

3.1.5.5.2 Contact information for the International Commission on Illumination [*Commission internationale de l'éclairage*] (CIE) is as follows:

* s. 3.1.4.1.1, 3.1.4.1.1.2, 3.1.4.1.1.3: Circumference measured at the fullest point under the user's arms, with the measuring tape parallel to the floor.



3.1.5.5.2.1 CIE Central Bureau
Kegelgasse 27
1030 Vienna
Austria
tel: +43 1 714 31 87 0
email: ciecb@cie.co.at
url: <http://www.cie.co.at>

3.1.6 Compatibility

3.1.6.1 In order to ensure compatibility with the in-service Bivy Bag (which has a side opening along its left-hand side), Sleeping Modules must **not** have a side opening **solely** along their right-hand side.

3.1.7 Hygiene Liner

3.1.7.1 The Hygiene Liner is intended to protect the other Sleeping Modules from perspiration, skin oils, dirt and other contaminants that could be transferred from the user's body and garments.

3.1.7.2 The Sleeping Bag System must have a Hygiene Liner.

3.1.7.3 The Hygiene Liner must be the Sleeping Module that is worn closest to the user.

3.1.7.4 The Hygiene Liner must conform to the requirements in s. 3.2.6.

3.1.7.5 The Hygiene Liner fabric must conform to the requirements in s. 3.3.2.

3.1.8 Insulated Collar

3.1.8.1 The Sleeping Bag System must include at least 1 Insulated Collar, either as a separate component or as part of one of the Sleeping Modules. The Insulated Collar must provide a close fit around the user's neck to mitigate drafts and convective heat loss.

3.1.9 Hang Loops

3.1.9.1 Each Sleeping Module must have hang loops that allow the Sleeping Module to be hung inside-out, and also outside-out (for air-drying purposes). Each loop must have an inner perimeter of 10 to 15 cm.

3.1.10 Storage Bag

3.1.10.1 The Sleeping Bag System must include a Storage Bag to protect it during storage and shipping. The Storage Bag is **not** intended to compress the Sleeping Bag System for transportation in a backpack; this function is fulfilled by the in-service Waterproof Compression Sack. The Storage Bag is not considered a Sleeping Module.

3.1.10.2 The Storage Bag will be used for all standard sizes of Sleeping Bag System (5'6", 6'0", and 6'6"). When requested, special size Sleeping Bag Systems must be provided with a special size Storage Bag instead of a standard size Storage Bag.

3.1.10.3 The Storage Bag must be able to completely envelope and securely contain any Sleeping Bag System size (without the Bivy Bag and Self-Inflating Mattress), so that no part of the Sleeping Bag System is visibly exposed (i.e. visibly open mesh fabrics are not acceptable), and no part of it can fall out when shaken in any orientation.

3.1.10.4 The Storage Bag should be designed and sized to minimize the storage volume of the Sleeping Bag System, while considering the shelf-life requirements of s. 3.2.5. The design and capacity of the Storage Bag must be approved by the Technical Authority prior to production.



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- 3.1.10.5 The Storage Bag must have an external hang loop (for hanging storage purposes) that has an inner perimeter of 10 to 15 cm.
- 3.1.10.6 The Storage Bag and its components must have a drab brown or green or neutral hue (e.g. greige is acceptable). The colour(s) of the Storage Bag and its components must be approved by the Technical Authority prior to Production.
- 3.1.10.7 The Storage Bag fabric must conform to the requirements in s. 3.3.4.

3.2 SYSTEM PERFORMANCE

3.2.1 Thermal Insulation

- 3.2.1.1 The thermal insulation of each thermal configuration listed in s. 3.2.1.3 must be tested and reported in accordance with ASTM F1720-06, with the following modifications:
 - 3.2.1.1.1 Prior to testing, a size 6'0" (s. 3.1.4) of each Sleeping Module that is not a Hygiene Liner must be laundered with all closures fastened, 6 times outside-out and 6 times inside-out, in a front-loading washing machine and tumble dryer, in accordance with AATCC Test Method 96, table I, washing procedure IIc, drying procedure A, and restoration procedure O. The washing machine and dryer must have sufficient capacity to allow the Sleeping Module(s) to tumble freely at least half of the time. In case of dispute, the washing machine must have a basket volume of at least 200 litres, and the dryer must have a basket volume of at least 400 litres. The name, address, and point of contact of the laundering facility must be reported, along with the make and model of the washer and dryer.
 - 3.2.1.1.2 Prior to testing, a size 6'0" Hygiene Liner must be laundered with all closures fastened, 12 times outside-out, in accordance with CAN/CGSB-4.2 No. 58, method III.E (tumble dry normal). The name, address, and point of contact of the laundering facility must be reported, along with the make and model of the washer and dryer.
 - 3.2.1.1.3 Prior to testing, a MATTRESS,PNEUMATIC,SELF-INFLATING 8465-21-907-9550 (Self-Inflating Mattress) must be inflated to a pressure of 10.5 kPa at an ambient temperature of 21 ± 2.8 °C and left closed for 4 hours. At the 4 hour mark, the pressure of the Self-Inflating Mattress must be 7.0 kPa or more.
 - 3.2.1.1.4 During conditioning, all Sleeping Modules must be fully separated from each other before shaking, and when laid flat or hung in the uncompressed state.
 - 3.2.1.1.5 The nude test manikin must be outfitted in a size 6'0" Sleeping Bag System that has been laundered in accordance with s. 3.2.1.1.1 and 3.2.1.1.2, and configured per the Supplier's Product Manual (s. 3.5).
 - 3.2.1.1.6 The outfitted manikin must then be encased in a SLEEPING BAG CASE 8465-20-007-2648 (Medium TW Bivy Bag) in accordance with the Supplier's Product Manual.
 - 3.2.1.1.7 A Self-Inflating Mattress in accordance with s. 3.2.1.1.3 must be inflated to capacity using its Carrying Bag as a pump, and then placed on the cot. The encased manikin must then be placed on its back on the Self-Inflating Mattress.
 - 3.2.1.1.8 Using the same Sleeping Bag System specimen, 3 independent replications of the test must be conducted by dressing the manikin in the thermal configuration 3 different times and taking data each time. The thermal insulation of the configuration will be taken as the average of the 3 measurements.
- 3.2.1.2 The Kansas State University Institute for Environmental Research (KSU IER) is recognized by DND as having the qualifications, experience and facilities required for testing in accordance with ASTM F1720 "Standard Test Method for Measuring Thermal Insulation of Sleeping Bags Using a Heated Manikin". Should a Bidder wish to use a laboratory other than KSU IER for testing in accordance with s. 3.2.1.1, the Bidder must submit the name, address, and point of

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contact of the laboratory for approval by the Technical Authority prior to having the testing conducted. The KSU IER will be the referee laboratory for all thermal testing specified in s. 3.2.1.1, should any such testing be required for verification of results or for resolution of dispute.

3.2.1.2.1 Contact information for the Kansas State University Institute for Environmental Research is as follows:

3.2.1.2.1.1 Kansas State University
64 Seaton Hall
Manhattan, Kansas
USA 66506
tel: 785-532-5620
email: ier-info@k-state.edu
url: <http://www.k-state.edu/ier/>

3.2.1.3 The Sleeping Bag System must be able to assume 3 different thermal configurations that meet the requirements below when tested in accordance with s. 3.2.1.1. The thermal insulation of each thermal configuration should be as low as possible while still meeting the respective minimum requirements below:

	Thermal Configuration Name	Minimum and Target Thermal Insulation	Maximum Thermal Insulation
3.2.1.3.1	10-clo Configuration	10.0 clo	12.0 clo
3.2.1.3.2	6.5-clo Configuration	6.5 clo	8.0 clo
3.2.1.3.3	4-clo Configuration	4.0 clo	5.0 clo

3.2.1.4 Each thermal configuration above must include a Hygiene Liner Module in accordance with s. 3.1.7. In each thermal configuration above, the Hygiene Liner Module must **not** be the only Sleeping Module used.

3.2.1.5 Each thermal configuration above must be referenced in the Supplier's Product Manual (s. 3.5). The thermal configurations in the Manual will be used for all configuration-related testing, trials, and evaluations.

3.2.2 Flammability of Thermal Configurations

3.2.2.1 The flammability of each thermal configuration listed in s. 3.2.1.3 must be tested and reported in accordance with ASTM F1955-99, with the following conditions:

3.2.2.1.1 The test report must include certification by the laboratory that specimens were cut and prepared by laboratory-designated personnel from complete Sleeping Modules samples.

3.2.2.1.2 The cut specimens must be laundered in accordance with CAN/CGSB-4.2 No. 58, Procedure III.E (tumble dry normal).

3.2.2.1.3 Configurations must be tested without the Bivy Bag, and without the Self-Inflating Mattress.

3.2.2.1.4 Each set of 5 test specimens (5 laundered and 5 unlaundered) must be representative of the different construction and materials throughout the length of the Sleeping Bag System. For example, each set of 5 test specimens might have 1 specimen from the head, 1 from the shoulder, 1 from the hip, 1 from the knee, and 1 from the foot.

3.2.2.2 The Govmark Testing Services, Inc., also known as The Govmark Organization, Inc., (Govmark) is recognized by DND as having the qualifications, experience and facilities required for testing in accordance with ASTM F1955 "Standard Test Method for Flammability of



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Sleeping Bags". Should a Bidder wish to use a laboratory other than Govmark for testing in accordance with s. 3.2.2.1, the Bidder must submit the name, address, and point of contact of the laboratory for approval by the Technical Authority prior to having the testing conducted. Govmark will be the referee laboratory for all flammability testing specified in s. 3.2.2.1, should any such testing be required for verification of results or for resolution of dispute.

3.2.2.2.1 Contact information for The Govmark Testing Services, Inc. is as follows:

3.2.2.2.1.1 Govmark
96 Allen Blvd., Suite D
Farmingdale, New York
USA 11735-5626
tel: 631-293-8944
email: info@govmark.com
url: <http://www.govmark.com/>

3.2.2.3 When tested in accordance with s. 3.2.2.1, each thermal configuration must meet the following performance requirements identified in ASTM F1955:

3.2.2.3.1 The average burn rate must not exceed 15 cm/min.

3.2.2.3.2 No individual specimen must have a burn rate of more than 20 cm/min.

3.2.3 Mass

3.2.3.1 The mass of each Sleeping Module must be tested in accordance with the requirements below and reported:*

3.2.3.1.1 The test must be conducted using a scale calibrated in accordance with ASTM E4 Standard Practices for Force Verification of Testing Machines, and having a measurement range that is inclusive of the mass of the item(s) being measured.

3.2.3.1.2 Each Sleeping Module must be conditioned individually by tumbling it in a tumble dryer with no other load for 15 minutes at a temperature below 30 °C. The mass test must be completed within the next 15 minutes.*

3.2.3.1.3 The mass of each thermal configuration in s. 3.2.1.3 must be calculated from the combined masses of that configuration's Sleeping Modules and reported.*

* 3.2.3.1, 3.2.3.1.2, 3.2.3.1.3: Alternatively, the mass of each thermal configuration may be tested directly, using a scale in accordance with s. 3.2.3.1.1. In this case, the Sleeping Modules must first be conditioned by separating them from each other, opening them, and drying them in an atmosphere with a relative humidity below 10 % for a minimum of 24 hours, then placing them in an atmosphere at 50 ± 5 % relative humidity, and 20 ± 2 °C, for a minimum of 72 hours. The testing may then be done outside the conditioning room, but the temperature must be 23 ± 5 °C. The testing must begin within 5 minutes of removal from conditioning, and be completed within 4 hours.



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- 3.2.3.2 When tested in accordance with s. 3.2.3.1, the mass of each thermal configuration must not exceed the following values, and should be as low possible:

	SBS Size Name	Maximum Configuration Mass
3.2.3.2.1	5'6"	3,500 g
3.2.3.2.2	6'0"	4,000 g
3.2.3.2.3	6'6"	4,600 g

3.2.4 Compression Packing Volume

- 3.2.4.1 The packing volume of each thermal configuration in s. 3.2.1.3 must be tested in accordance with ASTM F1853 (without the Bivy Bag, Self-Inflating Mattress, Product Manual, or Storage Bag), with the following modifications, and reported:

- 3.2.4.1.1 The Sleeping Modules must be inserted into the test cylinder in the packing configuration(s) that the Supplier's Product Manual specifies for packing into the Waterproof Compression Sack. If the Manual does not specify a packing configuration, then the Modules must be inserted into the cylinder in the thermal configurations specified in the Supplier's Product Manual.

- 3.2.4.1.1.1 Example: Assuming the Product Manual does not specify a packing configuration, and the thermal configuration to be tested consists of an inner module nested inside an outer module, then that is how the system must be inserted into the cylinder (one module inside the other, not beside or above the other).

- 3.2.4.2 When tested in accordance with s. 3.2.4.1, the packing volume of each thermal configuration must not exceed the following values, and should be as low as possible:

	SBS Size Name	Maximum Configuration Packing Volume
3.2.4.2.1	5'6"	24,500 cm ³
3.2.4.2.2	6'0"	28,000 cm ³
3.2.4.2.3	6'6"	32,200 cm ³

3.2.5 Shelf-Life

- 3.2.5.1 New Sleeping Bag Systems, stored in their original packaging, must withstand normal warehouse conditions without any maintenance or loss in performance for a period of 5 years from the date of delivery.

- 3.2.5.2 Normal warehouse temperatures may vary from 0 to +35 °C, with 15 to 90 % relative humidity.

3.2.6 Drying Time

- 3.2.6.1 When tested in accordance with QETE TM 151207 (Appendix B1 to Annex B), the Hygiene Liner must be 75 % dry in 120 minutes or less.



3.3 MATERIALS

- 3.3.1 The material requirements that follow apply to fabrics and filling materials that are used in the Sleeping Bag System.

3.3.2 Hygiene Liner Fabric

3.3.2.1 LINER FABRIC APPEARANCE RETENTION

- 3.3.2.1.1 Fabrics used for the Hygiene Liner must not exhibit any significant changes in surface appearance throughout use and care. Fabrics with raised fibre surfaces must not exhibit matting or clumping of fibres, flattening or loss of nap.

3.3.2.2 LINER FABRIC HAND

- 3.3.2.2.1 Fabrics used for the Hygiene Liner should promote a feeling of comfort when used next-to-person. The fabric hand attributes should be such that a positive tactile sensation is produced.
- 3.3.2.2.2 The fabric used for the Hygiene Liner must not exhibit any significant changes in fabric hand throughout use and care.

3.3.2.3 LINER FABRIC HEAT RESISTANCE

- 3.3.2.3.1 Fabrics used for the Hygiene Liner must have no-melt / no-drip / no-ignition performance in accordance with s. 3.3.2.6.1, throughout the entire service life of the Hygiene Liner.

3.3.2.4 LINER FABRIC ANTI-MICROBIAL PROPERTIES

- 3.3.2.4.1 Anti-microbial products used must be acceptable for use on a textile substrate that will be in direct, prolonged contact with the skin.
- 3.3.2.4.2 If treated in Canada, the products used to impart anti-microbial properties to the fabric must have a Pest Control Product Registration Number that has been issued by the Pest Management Regulatory Agency of Health Canada as an anti-microbial. If treated outside of Canada, the products used to impart anti-microbial properties to the fabric must be registered with the United States Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act as an anti-microbial.

3.3.2.5 LINER FABRIC VERTICAL WICKING TEST PROCEDURE

- 3.3.2.5.1 Liner fabric vertical wicking properties must be tested in accordance with the following procedure:

3.3.2.5.1.1 TEST EQUIPMENT

- 3.3.2.5.1.1.1
- Retort stand with clip;
 - Distilled water;
 - Multiple-step stop-watch;
 - 250 ml beaker.

3.3.2.5.1.2 SPECIMEN CONDITIONING

- 3.3.2.5.1.2.1 The test specimens must be conditioned in accordance with CAN/CGSB-4.2 No. 2, Conditioning Textile Materials for Testing.



3.3.2.5.1.3 SPECIMEN PREPARATION

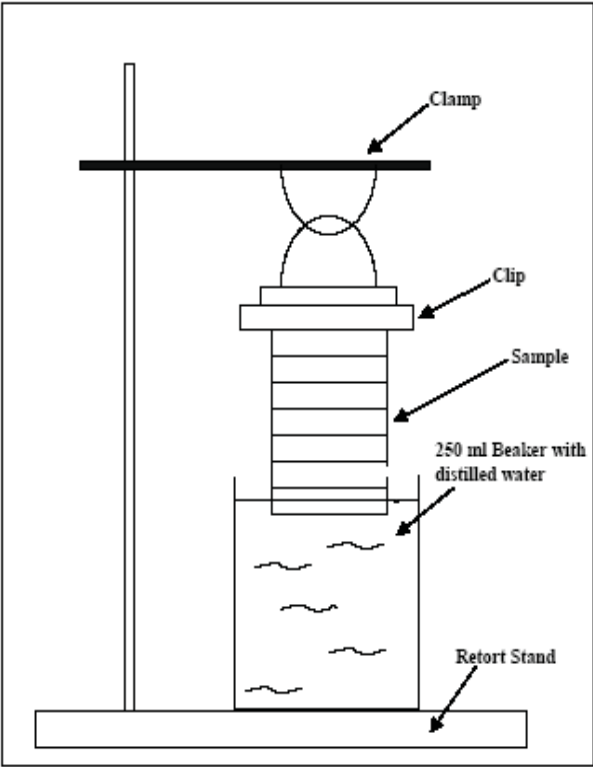
3.3.2.5.1.3.1 6 specimens, each measuring 3 cm by 15 cm, must be prepared. 3 specimens must be cut parallel to the length of the fabric and 3 specimens must be cut parallel to the width of the fabric. Each specimen must be marked with a graduated scale of 1 cm intervals.

3.3.2.5.1.3.2 The graduated scale may either be drawn with water-soluble ink or marked by stitching lines, using a colour of thread that contrasts with the specimen. Marking with ink may be preferred for fabrics that exhibit a negligible colour change as they wet out while stitching lines may be preferred for fabrics that exhibit a marked change in colour as they wet out. Regardless of the preferred marking procedure, care should be taken to not distort the fabric when preparing the specimen.

3.3.2.5.1.4 TEST PROCEDURE

3.3.2.5.1.4.1 Testing must be conducted in the standard atmosphere for textile testing (65 ± 2 % relative humidity and 21 ± 1 °C). A test specimen must be suspended vertically over a beaker that is filled with room temperature distilled water (see s. 3.3.2.5.1.5). The end of the test specimen must be lowered into the water. Timing must begin when the water reaches the first mark on the specimen. Using a multiple step stop watch, record the amount of time it takes for the water to reach each marked interval. Each test must be run for a maximum of 15 minutes.

3.3.2.5.1.5 TEST APPARATUS





3.3.2.5.1.6

REPORT

3.3.2.5.1.6.1

Wicking results must be reported for both lengthwise and crosswise directions. The average time it takes for the water to reach the 10 cm mark must be reported if it takes less than 15 minutes. If 15 minutes has elapsed and the 10 cm mark has not been reached, the average distance travelled by the water in 15 minutes must be reported.

3.3.2.6

LINER FABRIC REQUIREMENTS TABLE

	Liner Fabric Property	Test Method	Minimum	Maximum
3.3.2.6.1	Heat Resistance	CAN/CGSB-155.20, para 7.3.1.	No melting, no dripping, no ignition.	
3.3.2.6.2	Thermal Shrinkage	CAN/CGSB-155.20, para 7.3.1.	-	10 %
3.3.2.6.3	Thermal Stability	NFPA 1975, para 8.3.	No visible melting, no dripping, no ignition. Specimen must not stick to itself or to glass plate; layers must be easy to separate, and not adhered to one another.	
3.3.2.6.4	Flame Resistance	CAN/CGSB-4.2 No. 27.5.	7 s	-
3.3.2.6.5	Electrical Resistivity - Surface	AATCC 76, concentric ring test at 20° C and 65 % relative humidity, - Face:	1 x 10 ⁶ ohms/square	1 x 10 ¹² ohms/square
3.3.2.6.6			- Back: 1 x 10 ⁶ ohms/square	1 x 10 ¹² ohms/square
3.3.2.6.7	Anti-Bacterial Assessment	ISO 20743, as received.	99.9 % reduction	-
3.3.2.6.8		ISO 20743, after 5 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal).*	90 % reduction	-
3.3.2.6.9	Anti-Fungal Assessment	AATCC 30 (Test III) as received, - Surface Inhibition:	100 %	-
3.3.2.6.10		- Growth-Free Zone:	-	0 mm (no growth-free zone)

* s. 3.3.2.6.8, 3.3.2.6.11, 3.3.2.6.12: The 5th wash cycle must be blank: no detergent, soap, etc. - water only, cycle as specified. The ballast must be washed by itself as a blank prior to the 5th cycle: no detergent, soap, etc. - water only, cycle as specified.



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(continued)	Liner Fabric Property	Test Method	Minimum	Maximum
3.3.2.6.11		AATCC 30 (Test III) after 3 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal)*, - Surface Inhibition:	100 %	-
3.3.2.6.12		- Growth-Free Zone:	-	0 mm (no growth-free zone)
3.3.2.6.13	Vertical Wicking	Per s. 3.3.2.5, after 3 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal), - Lengthwise direction:	10 cm in under 15 min	-
3.3.2.6.14		- Crosswise direction:	10 cm in under 15 min	-
3.3.2.6.15	Colourfastness to Washing	CAN/CGSB-4.2 No. 19.1, Test No. 2, - Colour Change:	-	Gray Scale 4
3.3.2.6.16		- Staining:	-	Gray Scale 4
3.3.2.6.17	Colourfastness to Crocking	CAN/CGSB-4.2 No. 22, Tests 6.1 & 6.2, - Staining, Dry:	-	Gray Scale 4
3.3.2.6.18		- Staining, Wet:	-	Gray Scale 4
3.3.2.6.19	Colourfastness to Perspiration	CAN/CGSB-4.2 No. 23, - Colour Change:	-	Gray Scale 4
3.3.2.6.20		- Staining:	-	Gray Scale 4
3.3.2.6.21	Bursting Strength <i>knit fabrics only</i>	CAN/CGSB-4.2 No. 11.1.	50 psi	-
3.3.2.6.22	Tearing Strength <i>woven fabrics only</i>	CAN/CGSB-4.2 No. 12.1, - Warp direction:	10 N	-
3.3.2.6.23		- Weft direction:	10 N	-
3.3.2.6.24	Pilling Resistance (face and back)	CAN/CGSB-4.2 No. 51.2 (after 30 minutes), - Pilling Rating:	3*	-
3.3.2.6.25	Dimensional Stability in Laundering <i>Knit</i>	CAN/CGSB-4.2 No. 58, III.E (tumble dry normal), 3 cycles, - Length:	-	5.0 %
3.3.2.6.26		- Width:	-	5.0 %

* s. 3.3.2.6.24: The pilling rating must be accompanied by a description of any changes to fabric surface appearance.

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(continued)	Liner Fabric Property	Test Method	Minimum	Maximum
3.3.2.6.27	Woven	CAN/CGSB-4.2 No. 58, III.E (tumble dry normal), 3 cycles, - Warp:	-	3.0 %
3.3.2.6.28		- Weft:	-	3.0 %

3.3.3 Shell Fabric

3.3.3.1 Shell fabrics are defined as any fabric that serves as an enclosure for fill materials.

3.3.3.2 Shell fabrics must comply with the following requirements:

3.3.3.2.1 Shell Fabric Chemical Resistance Test Procedure

3.3.3.2.1.1 Throughout use, shell fabrics might receive limited exposure to chemicals. This would most likely be in the form of secondary contact in which a contaminant (e.g. petroleum, oil, lubricant, etc.) is transferred from one surface (e.g. dirty gloves, boots, etc.) to the Sleeping Bag System.

3.3.3.2.1.2 Chemical resistance must be evaluated in accordance with the following procedure:

3.3.3.2.1.2.1 Two specimens must be tested separately for each chemical. Chemicals must be placed on the side of the fabric that will be the outer face of the Sleeping Module.

3.3.3.2.1.2.2 A small drop (approximately 1 ml) of each chemical must be placed on the test specimen and then immediately covered with a watch glass. The watch glass must be left in place for 1 hour, and subsequently removed for the remainder of the test.

3.3.3.2.1.2.3 The specimens must be visually evaluated after 1 hour and 24 hour periods, and any observations on fabric degradation must be reported.

3.3.3.2.1.2.4 There must be no evidence of fabric degradation.

3.3.3.2.2 Shell Fabric Requirements Table

	Shell Fabric Property	Test Method	Minimum	Maximum
3.3.3.2.2.1	Moisture Regain Value	CAN/CGSB-4.2 No. 0.	-	5 %
3.3.3.2.2.2	Colourfastness to Washing	CAN/CGSB-4.2 No. 19.1, Test No. 2, - Colour Change:	-	Gray Scale 4
3.3.3.2.2.3		- Staining:	-	Gray Scale 4
3.3.3.2.2.4	Colourfastness to Light	AATCC 16.3, Option 3, After 20 AATCC Fading Units	-	Gray Scale 4
3.3.3.2.2.5	Breaking Strength	CAN/CGSB-4.2 No. 9.1, - Warp direction:	400 N	-
3.3.3.2.2.6		- Weft direction:	325 N	-
3.3.3.2.2.7	Tearing Strength	CAN/CGSB-4.2 No. 12.1, - Warp direction:	15 N	-



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(continued)	Shell Fabric Property	Test Method	Minimum	Maximum
3.3.3.2.2.8		- Weft direction:	14 N	-
3.3.3.2.2.9	Dimensional Stability in Laundering	CAN/CGSB-4.2 No. 58, III.E (tumble dry normal), 3 cycles,		
		- Warp:	-	3.0 %
3.3.3.2.2.10		- Weft:	-	3.0 %
3.3.3.2.2.11	Water Repellency	CAN/CGSB-4.2 No. 26.2, as received.	90	-
3.3.3.2.2.12		CAN/CGSB-4.2 No. 26.2, after 3 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal).	70	-
3.3.3.2.2.13	Oil Repellency	AATCC 118.	4	-
3.3.3.2.2.14		AATCC 118, after 3 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal).	4	-
3.3.3.2.2.15	Abrasion Resistance	ISO 12947-2.	90,000 cycles	-
3.3.3.2.2.16	Seam Slippage (applies to all types of seam constructions using shell fabric)	CAN/CGSB-4.2 No. 32.1, at 3 mm,		
		- Warp direction:	100 N	-
3.3.3.2.2.17		- Weft direction:	125 N	-
3.3.3.2.2.18		CAN/CGSB-4.2 No. 32.1, at 6 mm,		
		- Warp direction:	200 N	-
3.3.3.2.2.19		- Weft direction:	200 N	-
3.3.3.2.2.20	Chemical Resistance	Per s. 3.3.3.2.1, using: - Diesel fuel in accordance with CAN/CGSB-3.6, Type A:	No evidence of fabric degradation.	
3.3.3.2.2.21		- Gasoline in accordance with ASTM D471, Reference Fuel B (isooctane, 70 volume %; toluene, 30 volume %):	No evidence of fabric degradation.	
3.3.3.2.2.22		- Lubricating oil in accordance with SAE J1966, SAE Grade 50 (military grade 1100, commercial grade 100):	No evidence of fabric degradation.	
3.3.3.2.2.23		- Degreasers, cleaning agent (methyl ethyl ketone 99.8 % assay):	No evidence of fabric degradation.	
3.3.3.2.2.24		- Insect repellent (DEET) liquid, CAN/CGSB-15.19 (75 %):	No evidence of fabric degradation.	

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3.3.4 Storage Bag Fabric

3.3.4.1 The suggested material for the Storage Bag fabric is 100 % cotton, or a blend of cotton and synthetic (polyester or nylon) fibres. The suggested fabric structure is a plain weave.

	Storage Bag Fabric Property	Test Method	Minimum	Maximum
3.3.4.1.1	Mass	CAN/CGSB-4.2 No. 5.1	145 g/m ²	200 g/m ²
3.3.4.1.2	Tensile Strength (Grab)	CAN/CGSB-4.2 No.9.2, - Warp direction:	300 N	-
3.3.4.1.3		- Weft direction:	300 N	-
3.3.4.1.4	Tensile Strength (Single Rip Method)	CAN/CGSB-4.2 No.12.1, - Warp direction:	15 N	-
3.3.4.1.5		- Weft direction:	15 N	-
3.3.4.1.6	Air Permeability	CAN/CGSB-4.2 No. 36	25 cm ³ /cm ² /s	-
3.3.4.1.7	Dimensional Stability in Laundering	CAN/CGSB-4.2 No. 58, Test III.E.3, - Warp:	-	5 %
3.3.4.1.8		- Weft:	-	5 %
3.3.4.1.9	pH	CAN/CGSB-4.2 No. 74	6.5	7.5
3.3.4.1.10	Non-Fibrous Materials Content	CAN/CGSB-4.2 No.15-95* (omit 6.6 and 6.7)	-	5 %

3.3.5 Down and Feather Fill

3.3.5.1 If plumage (feathers or down) is used as a fill material in any component of the Sleeping Bag System, then it must meet the following requirements:

3.3.5.1.1 Plumage Sampling for Testing

3.3.5.1.1.1 For bid and Pre-Production testing purposes, representative samples of the filling material must be obtained in accordance with the procedure outlined in the International Down and Feather Bureau Testing Regulations, Part 02: Sampling (Bulk Down and Feathers).

3.3.5.1.1.2 For the purpose of testing during Production, representative samples of the filling material must be obtained in accordance with the procedure outlined in the International Down and Feather Bureau Testing Regulations, Part 02: Sampling (Finished Products Option 2 -- Test Multiple Products Separately), and must be taken from the finished Sleeping Modules, as they will be delivered to Canada.

* 3.3.4.1.10: CAN/CGSB-4.2 No. 15-95 is the version specified and required.



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3.3.5.1.2 Plumage Composition

- 3.3.5.1.2.1 The composition of plumage fill materials must be determined in accordance with International Down and Feather Bureau Testing Regulations Part 03, Determination of the Composition (Content Analysis), and reported.
- 3.3.5.1.2.2 When sampled in accordance with s. 3.3.5.1.1 and tested in accordance with s. 3.3.5.1.2.1, plumage must be found to originate from domesticated waterfowl (duck or goose), with no more than 1 % originating from landfowl.
- 3.3.5.1.2.3 Plumage mixtures must be well blended.

3.3.5.1.3 Plumage Quality

- 3.3.5.1.3.1 Plumage must be guaranteed 100 % new, de-dusted, washed, dried and sterilized. Reclaimed, reprocessed or reused plumage must not be used. Brittle, crushed or otherwise damaged feathers must not be used.

3.3.5.1.4 Plumage Anti-Microbial Properties

- 3.3.5.1.4.1 Anti-microbial products used must be acceptable for use on a substrate that will be in direct, prolonged contact with the skin.
- 3.3.5.1.4.2 If treated in Canada, the products used to impart anti-microbial properties must have a Pest Control Product Registration Number that has been issued by the Pest Management Regulatory Agency of Health Canada as an anti-microbial. If treated outside of Canada, the products used to impart anti-microbial properties must be registered with the United States Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act as an anti-microbial.

3.3.5.1.5 Plumage Anti-Fungal Assessment

- 3.3.5.1.5.1 There are several test methods used to evaluate the anti-fungal activity of textile materials but none that are specific to feathers and down. AATCC 30 (Test III) is used to evaluate textile materials that will be exposed to environmental conditions that may encourage fungal growth. AATCC 30 (Test III) is a well-accepted and proven test method and is known by DND to have been used successfully to evaluate the anti-fungal activity of feathers and down. Plumage must be sampled in accordance with s. 3.3.5.1.1 and tested in accordance with AATCC 30 (Test III), and the results reported, with the following modifications:
 - 3.3.5.1.5.1.1 The textile specimen specified in the test method must be substituted with a plumage specimen such that 10 to 15 cm² of the growth medium is covered with a single layer of plumage. There must be sufficient distance between the plumage specimen and the edges of the container that it is held in, to allow evaluation of the growth-free zone.
 - 3.3.5.1.5.1.2 At the end of the incubation period, the plumage specimen must be visually evaluated, and the amount of fungal growth **on the plumage** must be reported. Care must be taken to differentiate between fungal growth that is **on the plumage**, as opposed to fungal growth that is on the test medium beneath the plumage, or fungal growth that has originated on the test medium and grown around or between the plumage materials. These distinctions may be made more easily by viewing the plumage specimen under magnification.
 - 3.3.5.1.5.1.3 Test reports for plumage anti-fungal assessments must be provided in both hard-copy and electronic format. Both formats must include close-up images of the entire test surface area. Electronic test reports must be submitted in 8.5" x 11" Portable Document Format (PDF) on a compact disc (CD), digital versatile disc (DVD), or other format and medium approved by the Technical Authority. Electronic images



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must be of sufficient quality to allow definitive identification of plumage and growth areas. Electronic images must be embedded in the report file. If it is impractical to embed high resolution images in the report file, then high resolution copies of the images in the report may be provided as separate files on the same disc as the report. Acceptable image file formats include Tagged Image File Format (TIFF) and full quality Joint Photographic Experts Group (JPEG) format.

3.3.5.1.6 Plumage Odour

3.3.5.1.6.1 The plumage must have no objectionable odour.

3.3.5.1.6.2 In case of dispute, the International Down and Feather Laboratory will provide the final determination in accordance with s. 3.3.5.1.1 and International Down and Feather Laboratory Test Method 30 (internal test method). A score of less than 3 will be considered objectionable.

3.3.5.1.7 Plumage Requirements Table

	Plumage Property	Test Method	Minimum	Maximum
3.3.5.1.7.1	Oxygen Number	IDFB, Part 07, with sampling per s. 3.3.5.1.1.	-	5
3.3.5.1.7.2	Turbidity	IDFB, Part 11-A, with sampling per s. 3.3.5.1.1.	750 mm	-
3.3.5.1.7.3	Fat and Oil Content	IDFB, Part 04, with sampling per s. 3.3.5.1.1.	0.5 %	2.0 %
3.3.5.1.7.4	pH	IDFB, Part 06, with sampling per s. 3.3.5.1.1.	6	8
3.3.5.1.7.5	Anti-Bacterial Assessment	ISO 20743, as received, with sampling per s. 3.3.5.1.1.	80 % reduction	-
3.3.5.1.7.6		ISO 20743, after 3 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal)*, with sampling per s. 3.3.5.1.1.	70 % reduction	-
3.3.5.1.7.7	Anti-Fungal Assessment	AATCC 30 (Test III) with modifications per s. 3.3.5.1.5, as received, and sampling per s. 3.3.5.1.1, - Surface Inhibition:	100 %	-
3.3.5.1.7.8		- Growth-Free Zone:	-	0 mm (no growth-free zone)

* 3.3.5.1.7.6, 3.3.5.1.7.9, 3.3.5.1.7.10: Plumage must be laundered in a "test pillow". The test pillow must be constructed from the sleeping bag shell fabric(s) and must be filled with approximately 20 grams of plumage. The finished measurements of the test pillow must be 12 inches by 12 inches. Seams must be suitably finished to prevent loss of filling material during laundering.

The 3rd wash cycle must be a blank: no detergent, soap, etc. - water only, cycle as specified. The ballast must be washed by itself as a blank prior to the 3rd cycle: no detergent, soap, etc. - water only, cycle as specified.



(continued)	Plumage Property	Test Method	Minimum	Maximum
3.3.5.1.7.9		AATCC 30 (Test III) with modifications per s. 3.3.5.1.5, after 3 cycles per CAN/CGSB-4.2 No. 58, III.E (tumble dry normal)*, and sampling per s. 3.3.5.1.1,		
		- Surface Inhibition:	100 %	-
3.3.5.1.7.10		- Growth-Free Zone:	-	0 mm (no growth-free zone)

3.3.6 Synthetic Fibre Fill

- 3.3.6.1 Synthetic fibre fills may be used in any component of the Sleeping Bag System. The components that incorporate synthetic fills are subject to the applicable requirements herein. Care must be taken to select synthetic fibre fills that exhibit characteristics suitable for Canadian Armed Forces operating conditions. Key material characteristics include thermal protection, moisture management, ability to shed water, compressibility and compression recovery, weight reduction, and durability.

3.4 PRODUCT MARKINGS

3.4.1 Product Marking Format

- 3.4.1.1 Each item (Sleeping Module, Storage Bag, Product Manual) must have its own markings.
- 3.4.1.2 All Required Product Marking Data (s. 3.4.2) must appear coherently organized and aligned within a rectangular area no greater than 400 cm².
- 3.4.1.3 Markings must be cleanly formed, fully impressed, and appropriately scaled for legibility. Unless specified otherwise, all text must be of a single sans-serif typeface of human-readable proportions and spacing.
- 3.4.1.4 All markings must be of the same font size, with a lowercase "x" height no shorter than 1.5 mm (such as this 9 point Arial font when viewed on an 8.5" x 11" page), unless specified otherwise or prior approval has been obtained from the Technical Authority.
- 3.4.1.5 Markings may be applied on one or more labels. Markings on any labels must be located at least 5 mm away from the label's edges.
- 3.4.1.6 All markings and labels must be located and secured in a manner that does not interfere with the Sleeping Bag System's comfort, operation or performance.
- 3.4.1.7 Sleeping Module markings and labels must be applied to a Sleeping Module surface that is within 30 cm of the head-opening of the Sleeping Module (as measured without folding or bunching, i.e. in a normal resting position). Markings and labels should be applied to similar locations on each Sleeping Module in the Sleeping Bag System.
- 3.4.1.8 Storage Bag markings and labels must be applied to the exterior of the Storage Bag.
- 3.4.1.9 If multiple labels are used on the same item, they must be secured to within 5 cm of each other.
- 3.4.1.10 All label edges must be secured such that the labels cannot be removed by hand (without tools) in under 10 seconds.



- 3.4.1.11 Visible label surfaces must have a low-lustre finish and a low visual contrast with the colour of the surface the label is applied to. Infrared reflectance is not required.
- 3.4.1.12 When subjected to equivalent conditions, the appearance of a label's visible surface must not degrade more noticeably than the appearance of the surface the label is applied to, as viewed from a distance of 1 metre, under North-sky daylight.
- 3.4.1.13 Markings must have sufficient visual contrast with the surface they are applied to, to be legible under North-sky daylight.
- 3.4.1.14 When subjected to equivalent conditions, the appearance of markings must not degrade more noticeably than the appearance of the surface they are applied to, as viewed from a distance of 1 metre, under North-sky daylight.
- 3.4.1.15 All markings and labels must be approved for conformance and clarity by the Technical Authority prior to Contract production.

3.4.2 Required Product Marking Data

- 3.4.2.1 Each Sleeping Module must be marked with the Marking Data as written between chevrons (⟨...⟩) in s. 3.4.2.7.1 to 3.4.2.7.11.
- 3.4.2.2 Each Storage Bag must be marked with the Marking Data as written between chevrons in s. 3.4.2.7.1, and 3.4.2.7.3 to 3.4.2.7.9.
- 3.4.2.3 Characters between brackets ([...]) are place-holders that the Contractor must replace with appropriate characters determined at the time of production (in cases of uncertainty, the Technical Authority should be consulted).
- 3.4.2.4 Chevrons and brackets are not part of the Marking Data and must be omitted from actual markings.
- 3.4.2.5 Characters specified in uppercase, bold, or underlined typeface, or any combination thereof, must be marked as such.
- 3.4.2.6 Data submitted for sections 3.4.2.7.8 to 3.4.2.7.11 that does not have the same contextual meaning in French as it does in English must appear in both of those languages.
- 3.4.2.7 Canada reserves the right to add, remove, or change required marking data as needed.

3.4.2.7.1 User Initials

- 3.4.2.7.1.1 ⟨INITIALS / INITIALES⟩
- 3.4.2.7.1.2 Immediately above, below, or to the right of the text "INITIALS / INITIALES:" there must be an area at least 60 mm across by 10 mm tall that is free of any markings or obstructions, to allow space for the User to add their initials.

3.4.2.7.2 Size

- 3.4.2.7.2.1 The font size of the size marking must be at least 100 % larger than the font size of the other regular text markings.
- 3.4.2.7.2.2 Standard size Sleeping Bag Systems must be marked with the correct standard size name (5'6", 6'0", 6'6"):



3.4.2.7.2.2.1

«MAX USER
STATURE
[#]'[#]»
STATURE MAX
DE L'UTILISATEUR»

3.4.2.7.2.3

Special size Sleeping Bag Systems must be marked with a size name as shown below, where "SS" is the maximum recommended user stature in inches, and "CC" is the maximum recommended user chest circumference in inches (as measured at the fullest point under the arms):

3.4.2.7.2.3.1

«MAX USER
STATURE x CHEST
[SS]"x[CC]"
STATURE x POITRINE
MAX DE L'UTILISATEUR»

3.4.2.7.3

NSN and Description

3.4.2.7.3.1

The NSN and the English and French NATO short descriptions (item names) of the item being marked:

3.4.2.7.3.1.1

«[8465-20-####-####
SLEEPING BAG LINER, SIZE 6'0"
DOUBLURE DE SAC DE COUCHAGE, TAILLE 6'0"]»

3.4.2.7.3.2

NSNs and NATO short descriptions will be provided upon Contract award. Until such time, Bidders must use their own part number(s) and their own short description(s) when marking item samples, and when referencing those items in Product Manual samples, when any such samples are required with their bid.

3.4.2.7.4

Government Ownership Designation

3.4.2.7.4.1

«MDN CANADA DND»

3.4.2.7.5

NATO Commercial and Government Entity (NCAGE) Code of Manufacturer

3.4.2.7.5.1

«MFR: [#####]»

3.4.2.7.5.2

Canadian companies may obtain an NCAGE Code by contacting the Canadian Commercial Corporation below:

3.4.2.7.5.2.1

Canadian Commercial Corporation
50 O'Connor Street, 11th floor
Ottawa, Ontario
Canada K1A 0S6
tel: 613-996-0034 (or toll-free in Canada: 1-800-748-8191)
url: <http://www.ccc.ca>

3.4.2.7.5.3

Additional NCAGE Code information is available on the following Industry Canada website:
http://www.ic.gc.ca/eic/site/ccc-rec.nsf/eng/h_00007.html#2.6.5



3.4.2.7.5.4 Further NCAGE Code registration and updating procedures are available on the following NATO Support and Procurement Agency (NSPA) website:
<https://eportal.nspa.nato.int/AC135Public/Docs/US%20Instructions%20for%20NSPA%20NCAGE.pdf>

3.4.2.7.6 Contract Number

3.4.2.7.6.1 <CONTR: [\$#####]-[#####]/[###]/[##]>

3.4.2.7.7 Production Date

3.4.2.7.7.1 <DATE: [YYYY]-[MO]>

3.4.2.7.7.2 "YYYY" and "MO" must be the year and month number of the production date of the item being marked. The Production Date Markings may also include the day number, and the time of day of production of the item being marked, immediately to the right of the month number, in the form <-[DY],[HR]:[MN]>, where "DY" is the day number, "HR" is the hour in 24 hour format, and "MN" is the minute. The time of day must not be included without a day number.

3.4.2.7.8 Material Content

3.4.2.7.8.1 <MATERIALS / MATERIAUX: [...]>

3.4.2.7.8.2 Material content must be limited to that of the item being marked.

3.4.2.7.8.3 Material content must be identified on each applicable item in accordance with the Textile Labelling and Advertising Regulations of Canada.

3.4.2.7.9 Care/Maintenance/Storage Instructions

3.4.2.7.9.1 <CARE / SOIN: [...]>

3.4.2.7.9.2 Care, maintenance, and storage instructions must pertain to the item being marked.

3.4.2.7.9.3 Care instructions must include washing and drying procedures that make full use of commonly available domestic or commercial machines (i.e. washing and drying instructions that specify only manual procedures are not acceptable).

3.4.2.7.9.4 Care symbols must be in accordance with CAN/CGSB-86.1.

3.4.2.7.10 Hazard Warnings

3.4.2.7.10.1 <WARNING / AVERTISSEMENT:

[...]

This product is flame resistant, but will burn. KEEP AWAY FROM FIRE SOURCES.

[...]

Ce produit résiste aux flammes, mais brûlera. TENIR À L'ÉCART DES SOURCES DE FEU.

[...]>

3.4.2.7.10.2 Hazard warnings must pertain to the Sleeping Module being marked.

3.4.2.7.10.3 The font size of the text "WARNING / AVERTISSEMENT:" must be at least 20 % larger than the font size of the other regular text markings.

3.4.2.7.11 Basic Use Procedures

3.4.2.7.11.1 <USE / UTILISATION: [...]>

3.4.2.7.11.2 Basic use procedures must address each thermal configuration of the Sleeping Bag System, and they must be included on every Sleeping Module.



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- 3.4.2.7.11.3 Basic use procedures must provide suggested operating temperature ranges for each thermal configuration, in degrees Celsius. The thermal configurations must be displayed in order of temperature rating, as in the example below.
- 3.4.2.7.11.4 Basic use procedures must identify the Sleeping Modules used in each thermal configuration. The Sleeping Modules of each thermal configuration must be displayed in order of dress, as in the example below.
- 3.4.2.7.11.5 The example below is included for illustrative purposes only, and is not intended to reflect further requirements or objectives.

3.4.2.7.11.5.1	°C	CONFIGURATION (with bivy bag and self-inflating mattress)	NSN / NNO size / taille 6'0"	CONFIGURATION (avec sac de bivouac et matelas autogonflant)
	35	Liner	-123-4567	Doublure
	20	Liner Module A	-123-4567 -123-4568	Doublure Module A
	5	Liner Module B	-123-4567 -123-4569	Doublure Module B
	-10	Liner Module B Module A	-123-4567 -123-4569 -123-4568	Doublure Module B Module A
	-25	Liner Module C Module A	-123-4567 -123-4570 -123-4568	Doublure Module C Module A
	-40			

3.4.3 Optional Product Marking Data

- 3.4.3.1 Unless specified otherwise, markings may include the following data, subject to the Product Marking Format requirements in s. 3.4.1:
- 3.4.3.1.1 The Supplier's Part Number for the item being marked.
- 3.4.3.1.2 The Supplier's Serial Number for the item being marked.
- 3.4.3.1.3 The Supplier's Part Number for the label being marked.
- 3.4.3.1.4 The Supplier's Template Number for the markings being applied.
- 3.4.3.2 Markings may include a Supplier's Identity/Trade Mark (the Supplier's Mark). The Supplier's Mark must conform to the Product Marking Format requirements in s. 3.4.1, except s. 3.4.1.3 and 3.4.1.4.
- 3.4.3.3 Markings may include Feature Markings to help identify Sleeping Bag System features and communicate information related to those features. Feature Markings must conform to the Product Marking Format requirements in s. 3.4.1, except s. 3.4.1.4, 3.4.1.7, 3.4.1.8, and 3.4.1.9.
- 3.4.3.4 Storage Bag markings may include instructions for Storage Bag use, shipping, and handling, and hazard warnings, subject to the Product Marking Format requirements in s. 3.4.1.



3.5 PRODUCT MANUAL

- 3.5.1 The Sleeping Bag System must include a hard copy illustrated Product Manual.
- 3.5.2 When the Product Manual is closed, its width and length dimensions must each be 9 to 22 cm.

3.5.3 Product Manual Content

- 3.5.3.1 The Product Manual must identify all important components of the system and explain how they are designed to be used and maintained for optimal performance, including:
 - 3.5.3.1.1 A description of the design and intended use of the Sleeping Bag System;
 - 3.5.3.1.2 A description of Sleeping Bag System models, sizes, options, and accessories available under contract, and guidelines for their proper selection, fitting, and customization;
 - 3.5.3.1.3 An illustrated list of Sleeping Bag System parts with unique part and assembly names and NSNs in accordance with s. 3.4.2.7.3;
 - 3.5.3.1.4 Illustrated instructions for initial user assembly (out of the package), if applicable;
 - 3.5.3.1.5 Illustrated configuration instructions for combining the Sleeping Modules into the thermal configurations listed in 3.2.1.3, and making any adjustments. The configuration instructions must:
 - 3.5.3.1.5.1 Provide suggested operating temperature ranges for each thermal configuration, in degrees Celsius;
 - 3.5.3.1.5.2 Present the thermal configurations in order of temperature rating;
 - 3.5.3.1.5.3 Identify the Sleeping Modules used in each thermal configuration; and
 - 3.5.3.1.5.4 Communicate the order of layering of the Sleeping Modules for each thermal configuration.
 - 3.5.3.1.6 Recommended instructions for using the Sleeping Bag System with the current Canadian Armed Forces equipment listed in s. 2.3.3.1.1 to 2.3.3.1.5;
 - 3.5.3.1.7 The recommended size of the current Canadian Armed Forces Bivy Bag to use with each standard size of Sleeping Bag System. When laid flat with the slide-fastener closed, the sizes of the finished Bivy Bags differ only as follows:

	Bivy Bag Size	Medium (-007-2648)	Large (-007-2649)
3.5.3.1.7.1	Width (inches)	36 ± 0.5	42 ± 0.5
3.5.3.1.7.2	Length (inches)	102.5 ± 0.5	110 ± 0.5

- 3.5.3.1.8 Recommended packing configurations and instructions, if any;
- 3.5.3.1.9 Instructions for the preferred methods to care for, clean, sanitize, dry, and revitalize each Sleeping Module;
- 3.5.3.1.10 An illustrated list of user-replaceable Sleeping Bag System parts available under contract, if any, with unique part and assembly names and NSNs in accordance with s. 3.4.2.7.3;
- 3.5.3.1.10.1 User-replaceable parts will be defined as parts that can be replaced by an untrained user in 15 minutes or less, using only the Product Manual and equipment usually carried on their person (such as a multi-tool or sewing kit);
- 3.5.3.1.11 Illustrated instructions for proper preparation, removal, installation, and inspection of user-replaceable parts;



- 3.5.3.1.12 Long-term storage instructions;
- 3.5.3.1.13 Any limitations and risks associated with the use and maintenance of the Sleeping Bag System, and any recommended actions to eliminate and mitigate such risks; and
- 3.5.3.1.14 Operational-readiness inspection instructions.
- 3.5.3.2 The Product Manual must be written in English and French.
- 3.5.3.3 The Product Manual should also include:
 - 3.5.3.3.1 Basic principles of thermal management for comfort and survival in a range of conditions;
 - 3.5.3.3.2 Instructions for the preferred methods to care for, clean, sanitize, dry, revitalize, and repair each Sleeping Module in the field (where only natural resources are available and equipment is limited to what the user will usually carry on their person, such as a multi-tool, sewing/patch kit, fire starter, cord).

3.5.4 Product Manual Markings

- 3.5.4.1 The following requirements apply to the Product Manual's identification and reference markings only, not to the content of the Manual.

3.5.4.2 PRODUCT MANUAL MARKING FORMAT

- 3.5.4.2.1 Product Manual Markings must conform to s. 3.4.1.1 to 3.4.1.4, and s. 3.4.1.13 to 3.4.1.15.

3.5.4.3 REQUIRED PRODUCT MANUAL MARKING DATA

- 3.5.4.3.1 Product Manual Marking data must be in accordance with s. 3.4.2.3 to 3.4.2.5.
- 3.5.4.3.2 Each Product Manual must be marked on its outer cover with the Marking Data as written in chevrons (⟨...⟩) below:

3.5.4.3.2.1 TITLE

- 3.5.4.3.2.1.1 ⟨MANUAL FOR SLEEPING BAG SYSTEM [NSN of Family Head]
MANUEL POUR SYSTEM DE SAC DE COUCHAGE [NSN of Family Head]⟩
- 3.5.4.3.2.1.2 The NSN of the Family Head will be provided upon Contract award. Until such time, Bidders must use their own part number(s) when marking all Product Manual samples, when such samples are required with their bid.

3.5.4.3.2.2 EDITION

- 3.5.4.3.2.2.1 ⟨Edition / Édition: [YYYY]-[MO]-[DY]⟩
- 3.5.4.3.2.2.2 "YYYY", "MO", and "DY" must be the year, month number, and day number of edition of the Product Manual, respectively.
- 3.5.4.3.3 Product Manual Marking data must be marked on its inner cover with the data in s. 3.4.2.7.4 to 3.4.2.7.6, and the Marking Data as written in chevrons (⟨...⟩) below:
 - 3.5.4.3.3.1 ⟨#####-##-###-#####
MANUAL, SLEEPING BAG SYSTEM
MANUEL POUR SYSTEME DE SAC DE COUCHAGE⟩
 - 3.5.4.3.3.2 The NSN and NATO short descriptions will be provided upon Contract award. Until such time, Bidders must use their own part number(s) and their own short description(s) when marking all Product Manual samples, when any such samples are required with their bid.



- 3.5.4.3.4 Each page of the Product Manual, including any inner and outer cover pages, must be marked with their respective page number and the total number of pages. After Contract award, pagination must be omitted from any inner and outer cover pages.

- 3.5.4.3.5 Canada reserves the right to add, remove, or change required marking data as needed.

3.5.4.4 OPTIONAL PRODUCT MANUAL MARKING DATA

- 3.5.4.4.1 Product Manual Markings may include any data in accordance with s. 3.4.3, as applicable.

3.6 PRODUCT PACKING

- 3.6.1 Unless procurement documents specify otherwise, every complete Sleeping Bag System ordered must be delivered packed in its own Sleeping Bag System Storage Bag with 1 Product Manual.

3.7 PRODUCT PACKAGING AND PACKAGE MARKINGS

- 3.7.1 Unless specified otherwise, packaging and package markings must be in accordance with D-LM-008-036/SF-000 Department of National Defence Minimum Requirements for Manufacturer's Standard Pack.

- 3.7.2 NSNs marked on containers in accordance with s. 17 and 18 of D-LM-008-036/SF-000, must also be applied using GS1-128 Bar Code Symbolology with Application Identifier (AI) 7001, in accordance with s. 5.4 of GS1 General Specifications, and D-LM-008-002/SF-001 Specification for Marking for Storage and Shipment.

- 3.7.3 Each Sleeping Bag System packed in a Storage Bag must include a tag on its Storage Bag. The tag must be marked with the phrase "Contents / Contenu:" (without quotation marks) followed by the Sleeping Bag System's NSN and Description in accordance with s. 3.4.2.7.3.

- 3.7.4 Unless specified otherwise, each Sleeping Module that is not ordered as part of a Sleeping Bag System must be packaged individually. The individual packaging must support the shelf-life requirements of s. 3.2.5. Each individual package must be marked with the Sleeping Module's NSN and Description in accordance with s. 3.4.2.7.3. Sleeping Bag System Storage Bags and Product Manuals need not be packaged individually.

3.8 WORKMANSHIP

- 3.8.1 New and refurbished Sleeping Bag Systems must be free of manufacturing defects.

- 3.8.2 A defect will be interpreted as any irregularity that would diminish product performance or user acceptance beyond the levels established at any point during the bid evaluation or the Contract. Visible irregularities can be considered defects when clearly visible from a distance of 1 metre or more, under North-sky daylight.

- 3.8.2.1 Irregularities include:

- 3.8.2.1.1 Discrepancies between the product and the specifications (for performance, design, quality control), sealed samples, product markings, or Product Manual.

- 3.8.2.1.2 Loss, separation or migration of materials or components (e.g. abrasion, scratches, chipping, flaking, blistering, cracking, leaking, shedding, delamination, fraying, unravelling, tearing, cuts, breaks, holes, migration of fills through shell materials).

- 3.8.2.1.3 Fabric irregularities (e.g. unevenness of colour within fabric panels, inconsistency of fabric colour from fabric panel to panel, presence of soiling or staining, dye transfer, crocking, fuzzing, pilling, matting).



ANNEX B

- 3.8.2.1.4 Filling materials irregularities affecting performance (e.g. migration of filling materials, clumping, thin spots, twisting, distortion, dimensional stability, integrity of filling materials in construction).
- 3.8.2.1.5 Chemical changes (e.g. weathering, discolouration, corrosion, burns, decomposition).
- 3.8.2.1.6 Malformations or deformations (e.g. fillings, protrusions, voids, gaps, depressions, dents, undulations, crookedness, twisting, tangling, curling, kinking, puckering, shrinkage, expansion, stretching, flattening, warping, melting).
- 3.8.2.1.7 Stitch and seam irregularities (e.g. improper stitch balance, skipped stitches, seam failure, puckers, needle cutting on knits, ragged or inconsistent edges, broken stitches, seam grin, seam slippage, roping, pleating, improper or inconsistent stitch length and density for application, improper stitch type for application, malformed hems, unfinished seam ends without secure back-tacking).
- 3.8.2.1.8 Contamination from foreign matter (e.g. dust, dirt, fluid, microorganisms, markings, stains).
- 3.8.2.1.9 Extraneous or untrimmed material.
- 3.8.2.1.10 Remnants or residue from production.
- 3.8.2.1.11 Rough, sharp, or poorly finished areas.
- 3.8.2.1.12 Missing, miscounted, mismatched, misplaced, misaligned, or mis-sized features, materials, components, or markings.
- 3.8.2.1.13 Inconsistent, incorrect, or incomplete features, materials, components, or markings.
- 3.8.2.1.14 Tight, loose, interfering, or improperly engaging, features, materials, or components.
- 3.8.2.1.15 Objectionable sensations (appearance, odour, sound, or texture).
- 3.8.2.1.16 Typographical or grammatical errors.

4 QUALITY ASSURANCE

- 4.1 Unless specified in the Contract, the Contractor is responsible for ensuring that the performance of all inspections, materials and end-items conforms to the requirements of this Specification.
- 4.2 Canada reserves the right to perform any verification or testing deemed necessary to confirm that the materials, end-items and services conform to the prescribed requirements. The Contractor is responsible for ensuring that all materials, end-items and services submitted to Canada for acceptance comply with all requirements of the Contract.

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ANNEX C

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DIRECTORATE OF SOLDIER SYSTEMS
PROGRAM MANAGEMENT



STATEMENT OF WORK 131007
FOR SUPPLYING SLEEPING BAG SYSTEMS



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1 SCOPE

1.1 PURPOSE

- 1.1.1 This document describes the contract requirements to supply the Department of National Defence with sleeping bag systems.

1.2 BACKGROUND

- 1.2.1 The sleeping bag system will be carried by military personnel to provide thermal protection during static activities in tropical, temperate, and polar conditions.

1.3 SEARCH TERMS

- 1.3.1 Sleeping bags, sleep sacks, sleeping systems, camping gear, bedding, batting, synthetic insulation, winter, cold weather, arctic, down feathers, webbing straps, binding tapes, nylon, polyester, staple fibres, continuous filaments, zippers, slide fasteners, shock cords, bungee cords, soft goods, sewn goods, textiles, fabrics, threads, army, infantry, soldier systems.

1.4 TERMINOLOGY

- | | | |
|-------|------|---|
| 1.4.1 | ACA | After Contract Award. |
| 1.4.2 | CFSD | Canadian Forces Supply Depot. |
| 1.4.3 | CofC | Certificate of Compliance. |
| 1.4.4 | SOW | Statement of Work. |
| 1.4.5 | s. | Section. Refers to a numbered section or paragraph in this document or another referenced document. |
| 1.4.6 | TBD | To Be Determined. |

2 APPLICABLE DOCUMENTS

2.1 NATIONAL DEFENCE PUBLICATIONS

- 2.1.1 The following publications form part of this document to the extent specified herein. Unless specified otherwise, the effective date of the publications shall be those in effect on the date of the Contract. Copies of this document and the publications below may be ordered by contacting the Contracting Authority:
- 2.1.1.1 Specification 130906 for Sleeping Bag System

3 REQUIREMENTS

3.1 CONTRACT TASKS

3.1.1 Contract Pre-Production (Stage C1)

- 3.1.1.1 The Contractor must provide Pre-Production Deliverables in accordance with s. 4.1.3.



3.1.2 Contract Firm-Production (Stage C2)

- 3.1.2.1 Firm-Production must not begin without Technical Authority and Contracting Authority approval.
- 3.1.2.2 The Contractor must provide all Firm-Production Deliverables in accordance with s. 4.1.4.

3.1.3 Contract Option-Production (Stage C3)

- 3.1.3.1 Upon written notice from the Contracting Authority, the Contractor must provide all applicable Option-Production Deliverables in accordance with s. 4.1.5.

3.1.4 As-and-When Tasks

- 3.1.4.1 Upon receipt of an order from the Procurement Authority, the Contractor must provide all applicable As-and-When Deliverables in accordance with s. 4.1.6.

3.1.5 Quality Assurance

- 3.1.5.1 The Contractor is responsible for reviewing all deliverables, including any prepared for them by third parties, to ensure all required information is present and all criteria are met prior to delivery.
- 3.1.5.2 After Pre-Production approval, whenever the Contractor intends to use goods or services of a new supplier for this Contract, the Contractor must provide all applicable Pre-Production Deliverables in accordance with s. 4.1.3, and receive written approval of compliance from the Technical Authority before using those goods or services for this Contract. In case of uncertainty, the Contractor must consult the Technical Authority on which Pre-Production Deliverables are applicable.

4 CONTRACT DELIVERABLES

4.1 LIST OF CONTRACT DELIVERABLES AND CRITERIA

- 4.1.1 Contract Deliverables must comply with the applicable technical criteria listed below. Unless stated otherwise, technical criteria are referenced by the annex letter and section number of the document in which they appear. A reference to a section includes all sub-sections, unless any sub-sections are also referenced, in which case unreferenced sub-sections are excluded from the section reference. Criteria followed by a tilde (~) are only required to be met if applicable.
- 4.1.2 In addition to the above, the quality and performance of all Contract Deliverables must be equal to, or better than, that of the respective Bid Deliverables of the successful bid, and subsequently, that of the respective Contract Deliverables approved previously by the Technical Authority.



ANNEX C

	Contract	Pre-Production (C1) Deliverables	Criteria	Quantity	Destination	Timing
4.1.3						
4.1.3.1		C1 CoFC of all final Pre-Production Samples to all specified requirements.	B.3	1	Technical Authority	120 days ACA ^a
4.1.3.2		C1 CoFC of Liner fabric's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	B.3.3.2.4	1	Technical Authority	120 days ACA ^a
4.1.3.3		C1 CoFC of Plumage quality.	B.3.3.5.1.3~	1	Technical Authority	120 days ACA ^a
4.1.3.4		C1 CoFC of Plumage's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	B.3.3.5.1.4~	1	Technical Authority	120 days ACA ^a
4.1.3.5		C1 Report of mass test of all thermal configurations, of all standard sizes.	B.3.2.3	1	Technical Authority	120 days ACA ^a
4.1.3.6		C1 Report of packing volume test of all thermal configurations, of all standard sizes.	B.3.2.4	1	Technical Authority	120 days ACA ^a
4.1.3.7		C1 Report of Liner fabric vertical wicking test.	B.3.3.2.5, B.3.3.2.6.13, B.3.3.2.6.14	1	Technical Authority	120 days ACA ^a
4.1.3.8		C1 Report of Liner fabric heat resistance test.	B.3.3.2.6.1	1	Technical Authority	120 days ACA ^a
4.1.3.9		C1 Report of Liner fabric thermal shrinkage test.	B.3.3.2.6.2	1	Technical Authority	120 days ACA ^a
4.1.3.10		C1 Report of Liner fabric thermal stability test.	B.3.3.2.6.3	1	Technical Authority	120 days ACA ^a
4.1.3.11		C1 Report of Liner fabric flame resistance test.	B.3.3.2.6.4	1	Technical Authority	120 days ACA ^a

^a After Contract Award (ACA) and before using the goods or services of any new supplier thereafter.

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ANNEX C

4.1.3
continued

Contract <u>Pre-Production</u> (C1) Deliverables	Criteria	Quantity	Destination	Timing
C1 Report of Liner fabric electrical resistivity test.	B.3.3.2.6.5, B.3.3.2.6.6	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric anti-bacterial assessment.	B.3.3.2.6.7, B.3.3.2.6.8	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric anti-fungal assessment.	B.3.3.2.6.9, B.3.3.2.6.10, B.3.3.2.6.11, B.3.3.2.6.12	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric colourfastness test.	B.3.3.2.6.15, B.3.3.2.6.16, B.3.3.2.6.17, B.3.3.2.6.18, B.3.3.2.6.19, B.3.3.2.6.20	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric bursting strength test, if knit.	B.3.3.2.6.21~	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric tearing strength test, if woven.	B.3.3.2.6.22~, B.3.3.2.6.23~	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric pilling resistance test (with a description of the changes to the fabric appearance).	B.3.3.2.6.24	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric dimensional stability test after laundering, if knit.	B.3.3.2.6.25~, B.3.3.2.6.26~	1	Technical Authority	120 days ACA ^a
C1 Report of Liner fabric dimensional stability test after laundering, if woven.	B.3.3.2.6.27~, B.3.3.2.6.28~	1	Technical Authority	120 days ACA ^a
C1 Report of Shell fabric chemical resistance test.	B.3.3.3.2.1, B.3.3.3.2.2.20, B.3.3.3.2.2.21, B.3.3.3.2.2.22, B.3.3.3.2.2.23, B.3.3.3.2.2.24	1	Technical Authority	120 days ACA ^a

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ANNEX C

4.1.3
continued

Contract	Pre-Production (C1) Deliverables	Criteria	Quantity	Destination	Timing
4.1.3.22	C1 Report of Shell fabric moisture regain test.	B.3.3.3.2.2.1	1	Technical Authority	120 days ACA ^a
4.1.3.23	C1 Report of Shell fabric colourfastness test.	B.3.3.3.2.2.2, B.3.3.3.2.2.3, B.3.3.3.2.2.4	1	Technical Authority	120 days ACA ^a
4.1.3.24	C1 Report of Shell fabric breaking strength test.	B.3.3.3.2.2.5, B.3.3.3.2.2.6	1	Technical Authority	120 days ACA ^a
4.1.3.25	C1 Report of Shell fabric tearing strength test.	B.3.3.3.2.2.7, B.3.3.3.2.2.8	1	Technical Authority	120 days ACA ^a
4.1.3.26	C1 Report of Shell fabric dimensional stability test after laundering.	B.3.3.3.2.2.9, B.3.3.3.2.2.10	1	Technical Authority	120 days ACA ^a
4.1.3.27	C1 Report of Shell fabric water repellency test.	B.3.3.3.2.2.11, B.3.3.3.2.2.12	1	Technical Authority	120 days ACA ^a
4.1.3.28	C1 Report of Shell fabric oil repellency test.	B.3.3.3.2.2.13, B.3.3.3.2.2.14	1	Technical Authority	120 days ACA ^a
4.1.3.29	C1 Report of Shell fabric abrasion resistance test.	B.3.3.3.2.2.15	1	Technical Authority	120 days ACA ^a
4.1.3.30	C1 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types.	B.3.3.3.2.2.16, B.3.3.3.2.2.17, B.3.3.3.2.2.18, B.3.3.3.2.2.19	1	Technical Authority	120 days ACA ^a
4.1.3.31	C1 Report of Storage Bag fabric mass test.	B.3.3.4.1.1	1	Technical Authority	120 days ACA ^a
4.1.3.32	C1 Report of Storage Bag fabric tensile strength test (grab and single rip methods).	B.3.3.4.1.2, B.3.3.4.1.3, B.3.3.4.1.4, B.3.3.4.1.5	1	Technical Authority	120 days ACA ^a
4.1.3.33	C1 Report of Storage Bag fabric air permeability test.	B.3.3.4.1.6	1	Technical Authority	120 days ACA ^a

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ANNEX C

4.1.3
continued

Contract	Pre-Production (C1) Deliverables	Criteria	Quantity	Destination	Timing
4.1.3.34	C1 Report of Storage Bag fabric dimensional stability test after laundering.	B.3.3.4.1.7, B.3.3.4.1.8	1	Technical Authority	120 days ACA ^a
4.1.3.35	C1 Report of Storage Bag fabric pH test.	B.3.3.4.1.9	1	Technical Authority	120 days ACA ^a
4.1.3.36	C1 Report of Storage Bag fabric non-fibrous materials content test.	B.3.3.4.1.10	1	Technical Authority	120 days ACA ^a
4.1.3.37	C1 Report of Plumage composition test.	B.3.3.5.1.2.1~, B.3.3.5.1.2.2~	1	Technical Authority	120 days ACA ^a
4.1.3.38	C1 Report of Plumage anti-fungal assessment (required in hard-copy and electronic formats with high resolution electronic images).	B.3.3.5.1.5~, B.3.3.5.1.7.7~, B.3.3.5.1.7.8~, B.3.3.5.1.7.9~, B.3.3.5.1.7.10~	1	Technical Authority	120 days ACA ^a
4.1.3.39	C1 Report of Plumage oxygen number test.	B.3.3.5.1.7.1~	1	Technical Authority	120 days ACA ^a
4.1.3.40	C1 Report of Plumage turbidity test.	B.3.3.5.1.7.2~	1	Technical Authority	120 days ACA ^a
4.1.3.41	C1 Report of Plumage fat and oil content test.	B.3.3.5.1.7.3~	1	Technical Authority	120 days ACA ^a
4.1.3.42	C1 Report of Plumage pH test.	B.3.3.5.1.7.4~	1	Technical Authority	120 days ACA ^a
4.1.3.43	C1 Report of Plumage anti-bacterial assessment.	B.3.3.5.1.7.5~, B.3.3.5.1.7.6~	1	Technical Authority	120 days ACA ^a
4.1.3.44	C1 Samples of production Sleeping Bag System, (1) size 5'6", (1) size 6'0", (1) size 6'6", each packed in a production Storage Bag with a production Product Manual, in accordance with all authorized Design Changes.	B.3	1	Technical Authority	120 days ACA ^a

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ANNEX C

4.1.3
continued

Contract <u>Pre-Production</u> (C1) Deliverables	Criteria	Quantity	Destination	Timing
C1 Sample of each Hygiene Liner production fabric, each 2 metres long (by full width wide).	B.3.1.7.5	1	Technical Authority	120 days ACA ^a
C1 Sample of each Storage Bag production fabric, each 2 metres long (by full width wide).	B.3.1.10.7	1	Technical Authority	120 days ACA ^a
C1 Sample of each production Shell fabric, each 2 metres long (by full width wide).	B.3.3.3.2	1	Technical Authority	120 days ACA ^a

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4.1.3
continued

4.1.3.48

Contract <u>Pre-Production</u> (C1) Deliverables	Criteria	Quantity	Destination	Timing
C1 Samples of electronic Product Manual approved by the Technical Authority, 1 copy in native file format, and 1 copy in Portable Document Format (PDF) or another file format approved by the Technical Authority.	B.3.4.1.1, B.3.4.1.2, B.3.4.1.3, B.3.4.1.4, B.3.4.1.15, B.3.5.3.1, B.3.5.3.1.1, B.3.5.3.1.2, B.3.5.3.1.3, B.3.5.3.1.4~, B.3.5.3.1.5, B.3.5.3.1.5.1, B.3.5.3.1.5.2, B.3.5.3.1.5.3, B.3.5.3.1.5.4, B.3.5.3.1.6, B.3.5.3.1.7, B.3.5.3.1.7.1, B.3.5.3.1.7.2, B.3.5.3.1.8~, B.3.5.3.1.9, B.3.5.3.1.10~, B.3.5.3.1.10.1, B.3.5.3.1.11, B.3.5.3.1.12, B.3.5.3.1.13~, B.3.5.3.1.14, B.3.5.3.2, B.3.5.3.3, B.3.5.3.3.1, B.3.5.3.3.2, B.3.5.4.2.1, B.3.5.4.3.1, B.3.5.4.3.2, B.3.5.4.3.2.1.1, B.3.5.4.3.2.1.2, B.3.5.4.3.2.2.1, B.3.5.4.3.2.2.2, B.3.5.4.3.3, B.3.5.4.3.3.1, B.3.5.4.3.3.2, B.3.5.4.3.4, B.3.5.4.4.1~	1	Technical Authority	120 days ACA ^a

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ANNEX C

4.1.4

4.1.4.1

4.1.4.2

4.1.4.3

4.1.4.4

4.1.4.5

4.1.4.6

4.1.4.7

Contract Firm-Production (C2) Deliverables	Criteria	Quantity	Destination	Timing
C2 Firm-Production Sleeping Bag System, size 5'6", including all Sleeping Modules and a Product Manual, all packed in a Storage Bag, all produced in accordance with any authorized Design Changes.	B.3	680 1,020	7 CFSD Edmonton 25 CFSD Montreal	No later than 24 months after Pre- Production approval
C2 Firm-Production Sleeping Bag System, size 6'0", including all Sleeping Modules and a Product Manual, all packed in a Storage Bag, all produced in accordance with any authorized Design Changes.	B.3	2,640 3,960	7 CFSD Edmonton 25 CFSD Montreal	No later than 24 months after Pre- Production approval
C2 Firm-Production Sleeping Bag System, size 6'6", including all Sleeping Modules and a Product Manual, all packed in a Storage Bag, all produced in accordance with any authorized Design Changes.	B.3	680 1,020	7 CFSD Edmonton 25 CFSD Montreal	No later than 24 months after Pre- Production approval
C2 CoFC of Liner fabric's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.4	1	Technical Authority	As Specified
C2 CoFC of Plumeage quality, submitted every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.3~	1	Technical Authority	As Specified
C2 Report of Liner fabric heat resistance test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.3.1, B.3.3.2.6.1	1	Technical Authority	As Specified
C2 Report of Liner fabric vertical wicking test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.5, B.3.3.2.6.13, B.3.3.2.6.14	1	Technical Authority	As Specified

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	Contract Firm-Production (C2) Deliverables	Criteria	Quantity	Destination	Timing
4.1.4 <i>continued</i>					
4.1.4.8	C2 Report of Liner fabric thermal shrinkage test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.2	1	Technical Authority	As Specified
4.1.4.9	C2 Report of Liner fabric thermal stability test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.3	1	Technical Authority	As Specified
4.1.4.10	C2 Report of Liner fabric flame resistance test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.4	1	Technical Authority	As Specified
4.1.4.11	C2 Report of Liner fabric electrical resistivity test, every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.5, B.3.3.2.6.6	1	Technical Authority	As Specified
4.1.4.12	C2 Report of liner fabric anti-bacterial assessment, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.7, B.3.3.2.6.8	1	Technical Authority	As Specified
4.1.4.13	C2 Report of liner fabric anti-fungal assessment, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.9, B.3.3.2.6.10, B.3.3.2.6.11, B.3.3.2.6.12	1	Technical Authority	As Specified
4.1.4.14	C2 Report of Liner fabric colourfastness test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.15, B.3.3.2.6.16, B.3.3.2.6.17, B.3.3.2.6.18, B.3.3.2.6.19, B.3.3.2.6.20	1	Technical Authority	As Specified
4.1.4.15	C2 Report of Liner fabric bursting strength test, if knit, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.21~	1	Technical Authority	As Specified
4.1.4.16	C2 Report of Liner fabric tearing strength test, if woven, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.22~, B.3.3.2.6.23~	1	Technical Authority	As Specified

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ANNEX C

4.1.4
continued

Contract Firm-Production (C2) Deliverables	Criteria	Quantity	Destination	Timing
4.1.4.17 C2 Report of Liner fabric pilling resistance test (with a description of the changes to the fabric appearance), submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.2.6.24	1	Technical Authority	As Specified
4.1.4.18 C2 Report of Liner fabric dimensional stability test after laundering, if knit, submitted every 20,000 metres of production or part thereof, or when supplier changes.	B.3.3.2.6.25~ B.3.3.2.6.26~	1	Technical Authority	As Specified
4.1.4.19 C2 Report of Liner fabric dimensional stability test after laundering, if woven, submitted every 20,000 metres of production or part thereof, or when supplier changes.	B.3.3.2.6.27~ B.3.3.2.6.28~	1	Technical Authority	As Specified
4.1.4.20 C2 Report of Shell fabric chemical resistance test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.1, B.3.3.3.2.2.20, B.3.3.3.2.2.21, B.3.3.3.2.2.22, B.3.3.3.2.2.23, B.3.3.3.2.2.24	1	Technical Authority	As Specified
4.1.4.21 C2 Report of Shell fabric moisture regain test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.1	1	Technical Authority	As Specified
4.1.4.22 C2 Report of Shell fabric colourfastness test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.2, B.3.3.3.2.2.3, B.3.3.3.2.2.4	1	Technical Authority	As Specified
4.1.4.23 C2 Report of Shell fabric breaking strength test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.5, B.3.3.3.2.2.6	1	Technical Authority	As Specified
4.1.4.24 C2 Report of Shell tearing strength test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.7, B.3.3.3.2.2.8	1	Technical Authority	As Specified

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ANNEX C

4.1.4
continued

Contract Firm-Production (C2) Deliverables	Criteria	Quantity	Destination	Timing
C2 Report of Shell fabric dimensional stability test after laundering, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.9, B.3.3.3.2.2.10	1	Technical Authority	As Specified
C2 Report of Shell fabric water repellency test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.11, B.3.3.3.2.2.12	1	Technical Authority	As Specified
C2 Report of Shell fabric oil repellency test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.13, B.3.3.3.2.2.14	1	Technical Authority	As Specified
C2 Report of Shell fabric abrasion resistance test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.15	1	Technical Authority	As Specified
C2 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2.2.16, B.3.3.3.2.2.17, B.3.3.3.2.2.18, B.3.3.3.2.2.19	1	Technical Authority	As Specified
C2 Report of Storage Bag fabric mass test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.4.1.1	1	Technical Authority	As Specified
C2 Report of Storage Bag fabric tensile strength test (grab and single rip methods), submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.4.1.2, B.3.3.4.1.3, B.3.3.4.1.4, B.3.3.4.1.5	1	Technical Authority	As Specified
C2 Report of Storage Bag fabric air permeability test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.4.1.6	1	Technical Authority	As Specified
C2 Report of Storage Bag fabric dimensional stability test after laundering, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.4.1.7, B.3.3.4.1.8	1	Technical Authority	As Specified

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4.1.4
continued

Contract Firm-Production (C2) Deliverables	Criteria	Quantity	Destination	Timing
4.1.4.34 C2 Report of Storage Bag fabric pH test, submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.4.1.9	1	Technical Authority	As Specified
4.1.4.35 C2 Report of Storage Bag fabric non-fibrous materials content test, submitted every 20,000 metres or production, or part thereof, or when supplier changes.	B.3.3.4.1.10	1	Technical Authority	As Specified
4.1.4.36 C2 Report of Plumage composition test, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.2.1~ B.3.3.5.1.2.2~	1	Technical Authority	As Specified
4.1.4.37 C2 Report of Plumage anti-fungal assessment, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes, in hard-copy and electronic formats with high resolution electronic images.	B.3.3.5.1.5~ B.3.3.5.1.7.7~ B.3.3.5.1.7.8~ B.3.3.5.1.7.9~ B.3.3.5.1.7.10~	1	Technical Authority	As Specified
4.1.4.38 C2 Report of Plumage oxygen number test, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.7.1~	1	Technical Authority	As Specified
4.1.4.39 C2 Report of Plumage turbidity test, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.7.2~	1	Technical Authority	As Specified
4.1.4.40 C2 Report of Plumage fat and oil content test, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.7.3~	1	Technical Authority	As Specified
4.1.4.41 C2 Report of Plumage pH test, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.7.4~	1	Technical Authority	As Specified



4.1.4
continued

Contract Firm-Production (C2) Deliverables	Criteria	Quantity	Destination	Timing
C2 Report of Plumage anti-bacterial assessment, submitted for 3 Sleeping Modules every 5,000 Sleeping Modules produced, or part thereof, or when supplier changes.	B.3.3.5.1.7.5~ B.3.3.5.1.7.6~	1	Technical Authority	As Specified
C2 Sample of each Hygiene Liner production fabric, each 1 metre long (by full width wide), every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.1.7.5	1	Technical Authority	As Specified
C2 Sample of each production Shell fabric, each 1 metre long (by full width wide), submitted every 20,000 metres of production, or part thereof, or when supplier changes.	B.3.3.3.2	1	Technical Authority	As Specified

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4.1.5

4.1.5.1

4.1.5.2

Contract Option-Production (C3) Deliverables	Criteria	Quantity	Destination	Timing
Option-Production Sleeping Bag System, in a standard size to be specified, including all Sleeping Modules and a Product Manual, all packed in a Storage Bag, all produced in accordance with all applicable authorized Design Changes.	B.3	Minimum 4,000 in any combination of standard sizes	TBD ^b	TBD ^b
Option-Production Sleeping Module "A", or "B", or "C", etc., produced in accordance with all applicable authorized Design Changes.	B.3	Minimum 1,000 of any single type of Sleeping Module	TBD ^b	TBD ^b

^b To Be Determined (TBD) in written notice from Contracting Authority.



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	Contract As-and-When Deliverables	Criteria	Quantity	Destination	Timing
4.1.6					
4.1.6.1	As-and-When Sleeping Bag System, in a special size to be specified, including all Sleeping Modules and a Product Manual, all packed in a Storage Bag of a size to be specified, all produced in accordance with all applicable authorized Design Changes.	B.3	TBD ^c	TBD ^c	No later than 45 days after receipt of order
4.1.6.2	Design Improvement Services under the As-and-When deliverables consist of DND-initiated request for minor design change(s) to the Sleeping Bag System. The Contractor will be required to propose a design change solution to address the request from DND. Minor design change(s) can be described as changes that will not alter the function of the Sleeping Bag System. The follow-on production work is not considered to be part of the As-and-When deliverables.	B.3	TBD ^c	TBD ^c	TBD ^c
4.1.6.3	Repaired Sleeping Bag System, Sleeping Module, Product Manual, Storage Bag, or other User-Replaceable Part, produced in accordance with all applicable authorized Design Changes.	B.3	TBD ^c	TBD ^c	No later than 90 days after receipt of order

^c To Be Determined (TBD) in written notice from Procurement Authority.



4.2 FORMAT AND DATA REQUIREMENTS FOR CONTRACT DELIVERABLES

- 4.2.1 When submitted, each Contract Deliverable above must be clearly identified with the text "SOW Deliverable" followed by the number of the section where that deliverable is listed in this Statement of Work (e.g. "SOW Deliverable 4.1.3.1").
- 4.2.2 All documents must be supplied as 8.5" x 11" Portable Document Format (PDF) or other file format approved by the Technical Authority prior to commencement of the work. A colour hard copy printed on 8.5" x 11" paper must be provided upon request by the Contracting Authority or Technical Authority, at any time during the Contract.
- 4.2.3 All documents must be written in English or French.
- 4.2.4 Documents of the same type that are issued by the same entity should be consolidated, to reduce the number of documents submitted.

4.2.5 Contract Certificates of Compliance

- 4.2.5.1 A Certificate of Compliance is a written statement guaranteeing that certain objects (products, services, processes, personnel, organizations) comply with certain criteria.
- 4.2.5.2 Each Certificate of Compliance must clearly include:
 - 4.2.5.2.1 A statement to the effect that the referenced object(s) comply with the referenced criteria.
 - 4.2.5.2.2 The name and contact information of the designated representative of the entity that issued the Certificate.
 - 4.2.5.2.3 The name and contact information of the entity that issued the Certificate, if they differ from those of the entity's designated representative.
 - 4.2.5.2.4 The issue date of the Certificate of Compliance (effective start date).
 - 4.2.5.2.5 Descriptive nomenclature for each type of object being certified. When certifying product lots, the descriptive nomenclature must also include the supplier name and lot number.
 - 4.2.5.2.6 The criteria that the objects are certified to comply with.
 - 4.2.5.2.7 Any terms or conditions of the objects' compliance (e.g. expiry date).
 - 4.2.5.2.8 The page number and the total number of pages, on each page of the Certificate.
- 4.2.5.3 A complete Test Report in accordance with s. 4.2.6 will be accepted in lieu of a Certificate of Compliance, if the test results demonstrate compliance with the applicable criteria. In such a case, the Test Report must clearly include the text "In lieu of SOW Deliverable" followed by the section number under which the associated Certificate of Compliance is listed in this Statement of Work (e.g. "In lieu of SOW Deliverable 4.1.3.1").

4.2.6 Contract Test Reports

- 4.2.6.1 All required tests must be conducted by accredited independent laboratories, or university laboratories, or government laboratories, all experienced with testing textiles, and all within the jurisdiction of NATO member states. Testing conducted by any other entities must receive prior written approval from the Technical Authority.
- 4.2.6.2 All Test Reports must clearly include:
 - 4.2.6.2.1 The name and contact information of the primary person(s) that performed the test(s) and prepared the Report.
 - 4.2.6.2.2 The name and contact information of the designated representative of the entity that issued the Report.



- 4.2.6.2.3 The name and contact information of the entity that issued the Report, if they differ from those of the entity's designated representative.
- 4.2.6.2.4 References to the applicable test methods or specifications.
- 4.2.6.2.5 Descriptive nomenclature for each type of test specimen.
- 4.2.6.2.6 The name and contact information of the supplier of each test sample.
- 4.2.6.2.7 The production date, lot number, and a unique identifier, for each test specimen.
- 4.2.6.2.8 The date the first measurement was obtained for the reported test(s).
- 4.2.6.2.9 An account of any deviations from the prescribed specimens, conditions, apparatus or procedures.
- 4.2.6.2.10 All measurements and results. Where results suggest inconsistencies, the Report must summarize the possible causes.
- 4.2.6.2.11 The page number and the total number of pages, on each page of the Report.
- 4.2.6.2.12 The issue date of the Report on each page.
- 4.2.6.3 All reported test measurements must have been performed no more than 2 years before the Solicitation issue date.
- 4.2.6.4 Pre-Production test specimens must be taken from the same lots that are referenced in Pre-Production Certificates of Compliance and used in Pre-Production Physical Samples. Test specimens must be selected in a way likely to show the largest variability within a lot.
- 4.2.6.5 A Certificate of Compliance in accordance with s. 4.2.5 will be accepted in lieu of a Test Report if the Certificate states that all the applicable material being certified is from the same production lot(s) as material for which a Test Report demonstrating compliance was accepted during the Bid Evaluation. In such a case, the Certificate must clearly include the text "In lieu of SOW Deliverable" followed by the section number under which the associated Test Report is listed in this Statement of Work (e.g. "In lieu of SOW Deliverable 4.1.3.6").

4.2.7 Contract Physical Samples

- 4.2.7.1 Contract Physical Samples include physical product or material used for Quality Assurance purposes.
- 4.2.7.2 By submitting Contract Physical Samples, the Contractor certifies that they originate from the same product lots and material lots for which Contract Certificates of Compliance and Contract Test Reports were submitted. The Contractor also certifies that the Contract Physical Samples are equivalent to the specimens featured in the Contract Test Reports, such that if the Contract Physical Samples (or specimens taken from them) were subjected to the same testing, the results would be consistent with those in the Contract Test Reports.
- 4.2.7.3 Contract Physical Samples and any detached components thereof must be labelled with a removable tag, or secured in a container (such as a box or bag). If no tags are used, only identical Physical Samples may be placed in the same internal container. Each tag and container must be marked with the following information to identify the respective Sample(s):
 - 4.2.7.3.1 The Contract number (W8486-151419/...);
 - 4.2.7.3.2 The name and contact information of the Contractor;
 - 4.2.7.3.3 Identifying information in accordance with s. 4.2.1.

NOTICE:

This document has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.



AVIS:

Ce document a été révisé par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçus à l'origine avec le document continuent de s'appliquer.

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DIRECTORATE OF SOLDIER SYSTEMS
PROGRAM MANAGEMENT



BID TECHNICAL EVALUATION PLAN 131015
FOR SUPPLYING SLEEPING BAG SYSTEMS



1 SCOPE

1.1 PURPOSE

- 1.1.1 This Bid Technical Evaluation Plan describes the methodology used for the technical evaluation of bids to supply the Department of National Defence with sleeping bag systems.

1.2 TERMINOLOGY

- 1.2.1 CofC Certificate of Compliance.
- 1.2.2 s. Section. Refers to a numbered section or paragraph in this document or another referenced document.
- 1.2.3 UAPE User Acceptance Performance Evaluation.

2 APPLICABLE DOCUMENTS

- 2.1 Bid Technical Evaluation Matrix 131213
- 2.2 User Acceptance Performance Evaluation (UAPE) Plan 140909
- 2.3 Specification 130906
- 2.4 Statement of Work 131017

3 BID EVALUATION METHODOLOGY

- 3.1 Bids will be evaluated in the following sequential phases:
- 3.1.1 Phase B1;
Phase B2;
Phase B3.
- 3.2 Bids must meet all criteria of a phase to be considered for the subsequent phase. Bids must meet the criteria of all phases to be considered for Contract award.
- 3.3 Bids must include technical deliverables in each phase of the evaluation, to demonstrate conformance to the technical criteria of that phase. The required Bid Technical Deliverables are listed by evaluation phase in s. 7.
- 3.4 Bids will be attributed points for performing better than required for certain criteria, in accordance with s. 4.3. The sum of the points scored by each bid during all evaluation phases will constitute the bid's Total Technical Score.

4 BID TECHNICAL EVALUATION CRITERIA

- 4.1 Bid technical evaluation criteria are listed in Bid Technical Evaluation Matrix 131213.

4.2 MANDATORY CRITERIA

- 4.2.1 Criteria identified with an "M" in column "Y" of the Evaluation Matrix are mandatory. Failure to meet these criteria will render a bid non-compliant and it will be given no further consideration.



4.3 MANDATORY RATED CRITERIA

4.3.1 Criteria identified with a point value in column "Y" of the Evaluation Matrix are mandatory and point-rated. Failure to meet these criteria will render a bid non-compliant and it will be given no further consideration. Bids that perform better than required with respect to these criteria will be attributed points as follows:

4.3.1.1 For each criterion, the best performing bid will be attributed the full point value (in column "Y") for that criterion. The other compliant bids will be attributed a point value, rounded to the nearest whole number, that is proportional to their performance relative to the performance of the best bid (i.e. if a bid outperforms a requirement by half as much as the best bid, it will receive half as many points for that criterion).

4.3.1.1.1 Example

4.3.1.1.1.1 This example is a hypothetical scenario and might not constitute actual requirements or evaluation criteria.

4.3.1.1.1.2 The 10 clo configuration of the size 6'0" Sleeping Bag System must have a mass of 4000 g or less. The number of points assigned for this criterion is 4 points. Bidder A's proposed System has a mass of 3600 g, Bidder B's proposed System has a mass of 3900 g, Bidder C's proposed System has a mass of 4000 g, and Bidder D's proposed System has a mass of 4100g. In this case, Bidder A (with the lowest mass) would get the full 4 points, Bidder B would get $((4000 - 3900) / (4000 - 3600)) \times 4 = 1$ point, Bidder C would get $((4000 - 4000) / (4000 - 3600)) \times 4 = 0$ points and Bidder D would be non-compliant.

4.4 APPLICATION OF CRITERIA

4.4.1 Where criteria apply in several instances (e.g. the shell fabric tearing strength of a sleeping bag system that uses more than one type of shell fabric), the bid response will be taken as the average of all values applicable to that criterion (e.g. the average tearing strength of all shell fabrics used in the sleeping bag system). In each instance, the individual values that make up the average must each meet the requirements for the bid to be compliant (e.g. each shell fabric must meet the tearing strength requirements individually).

4.4.2 Some criteria might not apply to all bids. References to these criteria are followed by a tilde (~) in column "P" of the Evaluation Matrix. Bids are only required to meet criteria that are applicable to their bid. In case of uncertainty, a criterion's applicability to a bid will be determined by the Technical Authority.

5 BID EVALUATION TIMELINE (ESTIMATED)

	Activity/Milestone	Calendar Days
5.1	Phase B1	(119)
5.1.1	<u>Posting of Request for Proposal</u>	
5.1.2	Bid and B1 Deliverables Submission Period	84
5.1.3	<u>Bid Closing and B1 Deliverables Received</u>	
5.1.4	B1 Evaluation Period	35
5.1.5	<u>B1 Results Notice</u>	



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(continued)	Activity/Milestone	Calendar Days
5.2	Phase B2	(84)
5.2.1	B2 Deliverables Submission Period	28
5.2.2	<u>B2 Deliverables Received</u>	
5.2.3	B2 Evaluation Period	56
5.2.4	<u>B2 Results Notice</u>	
5.3	Phase B3	(119)
5.3.1	B3 Deliverables Submission Period	42
5.3.2	<u>B3 Deliverables Received</u>	
5.3.3	B3 Evaluation Period	77
5.3.4	<u>B3 Results Notice</u>	
5.4	Total	322

6 BID EVALUATION PHASES

6.1 PHASE B1

- 6.1.1 All Phase B1 deliverables must be received by the Solicitation closing date and time.
- 6.1.2 Each bid must include a signed Letter of Consent that gives the relevant laboratories permission to directly discuss that bid's test(s) and test result(s) with the Government of Canada.
- 6.1.3 Bids that meet all the criteria of Phase B1 will be recommended for advancement to Phase B2.

6.2 PHASE B2

- 6.2.1 All Phase B2 deliverables must be received within the B2 Deliverables Submission Period identified in s. 5.2.1.
- 6.2.2 During the B2 Evaluation Period, applicable Sleeping Modules from the above Sleeping Bag System sample will be conditioned and tested by the Department of National Defence, in accordance with the drying procedure of s. 3.2.6 of Specification 130906.
- 6.2.3 The 2 responsive bids that achieve the highest combined rating of technical merit (based on the sum of technical points from B1 and B2) and price in accordance with the terms of the Solicitation will be recommended for advancement to Phase B3.

6.3 PHASE B3

- 6.3.1 All Phase B3 deliverables must be received within the B3 Deliverables Submission Period identified in s. 5.3.1.
- 6.3.2 In Phase B3, End-Users will trial Bidder's sleeping bag systems and the current Canadian Armed Forces sleeping bag system, in accordance with the User Acceptance Performance Evaluation (UAPE) Plan. The UAPE Plan includes a sample of the User Exit Questionnaire that will be used



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to calculate points in Phase B3. Each Sleeping Bag System will be rated individually in a focus group dedicated specifically to that Sleeping Bag System.

6.3.3 Each Sleeping Bag System's User Acceptance Score will be calculated as follows:

6.3.3.1 For each criterion listed in the User Exit Questionnaire, Users will rate the acceptability of the Sleeping Bag System using the following scale:

- 6.3.3.1.1
- 1 (Totally Unacceptable)
 - 2 (Unacceptable)
 - 3 (Slightly Unacceptable)
 - 4 (Neutral)
 - 5 (Slightly Acceptable)
 - 6 (Acceptable)
 - 7 (Perfectly Acceptable)

6.3.3.2 For each completed User Exit Questionnaire, criterion ratings will be multiplied by the criterion's respective weight factor below:

	Criterion	Weight Factor
6.3.3.2.1	Product Manual	2
6.3.3.2.2	Configurability	11
6.3.3.2.3	Ingress	3
6.3.3.2.4	Egress	5
6.3.3.2.5	Fit	10
6.3.3.2.6	Physical Comfort	10
6.3.3.2.7	Thermal Comfort	12
6.3.3.2.8	Moisture Management	12
6.3.3.2.9	Ease of Use	11
6.3.3.2.10	Compression Sack Compatibility	11
6.3.3.2.11	Bivy Bag Compatibility	2
6.3.3.2.12	Self-Inflating Mattress Compatibility	2
6.3.3.2.13	Durability	9

6.3.3.3 The weighted ratings will be summed to calculate the User Exit Questionnaire Score for each User Exit Questionnaire.

6.3.3.4 The Sleeping Bag System's User Acceptance Score will be calculated as the sum of its User Exit Questionnaire Scores.



7 BID TECHNICAL DELIVERABLES

7.1 LIST OF BID TECHNICAL DELIVERABLES AND CRITERIA

- 7.1.1 Bid Technical Deliverables must comply, or demonstrate bid compliance, with the applicable technical criteria listed below. Unless stated otherwise, technical criteria are referenced by the annex letter and section number of the document in which they appear. A reference to a section includes all sub-sections, unless any sub-sections are also referenced, in which case unreferenced sub-sections are excluded from the section reference. References to criteria that might not apply to all bids are followed by a tilde (~).
- 7.1.2 Bidders are responsible to review deliverables prepared for them by third parties, to ensure all required information is present and all criteria are met.

7.1.3

	Phase B1 Technical Deliverables	Criteria
7.1.3.1	B1 CofC of Liner fabric flame resistance.	B.3.3.2.6.4
7.1.3.2	B1 CofC of Liner fabric pilling resistance.	B.3.3.2.6.24
7.1.3.3	B1 CofC of Shell fabric moisture regain value.	B.3.3.3.2.2.1
7.1.3.4	B1 CofC of Shell fabric breaking strength.	B.3.3.3.2.2.5, B.3.3.3.2.2.6
7.1.3.5	B1 CofC of Shell fabric chemical resistance.	B.3.3.3.2.2.20, B.3.3.3.2.2.21, B.3.3.3.2.2.22, B.3.3.3.2.2.23, B.3.3.3.2.2.24
7.1.3.6	B1 Letter of Consent to laboratory discussion with the Government of Canada.	D.6.1.2
7.1.3.7	B1 Report of Liner fabric vertical wicking test.	B.3.3.2.5.1, B.3.3.2.5.1.2.1, B.3.3.2.5.1.3.1, B.3.3.2.5.1.4.1, B.3.3.2.5.1.6.1, B.3.3.2.6.13, B.3.3.2.6.14
7.1.3.8	B1 Report of Liner fabric heat resistance test.	B.3.3.2.6.1
7.1.3.9	B1 Report of Liner fabric thermal shrinkage test.	B.3.3.2.6.2
7.1.3.10	B1 Report of Liner fabric thermal stability test.	B.3.3.2.6.3
7.1.3.11	B1 Report of Liner fabric electrical resistivity test.	B.3.3.2.6.5, B.3.3.2.6.6
7.1.3.12	B1 Report of Liner fabric bursting strength test, if knit.	B.3.3.2.6.21~
7.1.3.13	B1 Report of Liner fabric tearing strength test, if woven.	B.3.3.2.6.22~, B.3.3.2.6.23~

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ANNEX D

7.1.3
(continued)

Phase B1 Technical Deliverables**Criteria**

7.1.3.14	B1 Report of Liner fabric dimensional stability test after laundering, if knit.	B.3.3.2.6.25~, B.3.3.2.6.26~
7.1.3.15	B1 Report of Liner fabric dimensional stability test after laundering, if woven.	B.3.3.2.6.27~, B.3.3.2.6.28~
7.1.3.16	B1 Report of Shell fabric tearing strength test.	B.3.3.3.2.2.7, B.3.3.3.2.2.8
7.1.3.17	B1 Report of Shell fabric dimensional stability test after laundering.	B.3.3.3.2.2.9, B.3.3.3.2.2.10
7.1.3.18	B1 Report of Shell fabric water repellency test, after laundering.	B.3.3.3.2.2.12
7.1.3.19	B1 Report of Shell fabric oil repellency test, after laundering.	B.3.3.3.2.2.14
7.1.3.20	B1 Report of Shell fabric abrasion resistance test.	B.3.3.3.2.2.15
7.1.3.21	B1 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types.	B.3.3.3.2.2.16, B.3.3.3.2.2.17, B.3.3.3.2.2.18, B.3.3.3.2.2.19
7.1.3.22	B1 Sample of draft Product Manual.	B.3.1.2.1, B.3.5.3.1.1, B.3.5.3.1.3, B.3.5.4.3.2, B.3.5.4.3.2.1.1, B.3.5.4.3.2.1.2, B.3.5.4.3.2.2.1, B.3.5.4.3.2.2.2, B.3.5.4.3.4
7.1.3.23	B1 Sample of each Hygiene Liner fabric, each 2 metres long (by full width wide), in any colour. Of the referenced criteria, each Sample is only required to meet the criteria for which a Certificate of Compliance or Test Report is required in Phase B1.	B.3.3.2
7.1.3.24	B1 Sample of each Shell fabric, each 2 metres long (by full width wide), in any colour. Of the referenced criteria, each Sample is only required to meet the criteria for which a Certificate of Compliance or Test Report is required in Phase B1.	B.3.3.3

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7.1.4

Phase B2 Technical Deliverables

Criteria

7.1.4.1	B2 CofC of Liner fabric's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	B.3.3.2.4.1, B.3.3.2.4.2
7.1.4.2	B2 CofC of Plumage quality.	B.3.3.5.1.3.1~
7.1.4.3	B2 CofC of Plumage's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	B.3.3.5.1.4.1~, B.3.3.5.1.4.2~
7.1.4.4	B2 Report of thermal insulation test, submitted with the size 6'0" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	B.3.2.1.1, B.3.2.1.1.1, B.3.2.1.1.2, B.3.2.1.1.3, B.3.2.1.1.4, B.3.2.1.1.5, B.3.2.1.1.6, B.3.2.1.1.7, B.3.2.1.1.8, B.3.2.1.2, B.3.2.1.3, B.3.2.1.3.1, B.3.2.1.3.2, B.3.2.1.3.3, B.3.2.1.4
7.1.4.5	B2 Report of flammability test of all thermal configurations.	B.3.2.2.1, B.3.2.2.1.1, B.3.2.2.1.2, B.3.2.2.1.3, B.3.2.2.1.4, B.3.2.2.2, B.3.2.2.3, B.3.2.2.3.1, B.3.2.2.3.2
7.1.4.6	B2 Report of mass test of all thermal configurations, size 6'0".	B.3.2.3.1, B.3.2.3.1.1, B.3.2.3.1.2, B.3.2.3.1.3, B.3.2.3.2, B.3.2.3.2.2
7.1.4.7	B2 Report of packing volume test of all thermal configurations, size 6'0".	B.3.2.4.1, B.3.2.4.1.1, B.3.2.4.2, B.3.2.4.2.2
7.1.4.8	B2 Report of Liner fabric anti-bacterial assessment.	B.3.3.2.6.7, B.3.3.2.6.8
7.1.4.9	B2 Report of Liner fabric anti-fungal assessment.	B.3.3.2.6.9, B.3.3.2.6.10, B.3.3.2.6.11, B.3.3.2.6.12
7.1.4.10	B2 Report of Plumage composition test.	B.3.3.5.1.2.1~, B.3.3.5.1.2.2~
7.1.4.11	B2 Report of Plumage oxygen number test.	B.3.3.5.1.7.1~
7.1.4.12	B2 Report of Plumage turbidity test.	B.3.3.5.1.7.2~
7.1.4.13	B2 Report of Plumage fat and oil content test.	B.3.3.5.1.7.3~
7.1.4.14	B2 Report of Plumage pH test.	B.3.3.5.1.7.4~
7.1.4.15	B2 Report of Plumage anti-bacterial assessment.	B.3.3.5.1.7.5~, B.3.3.5.1.7.6~

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ANNEX D

7.1.4

(continued)

Phase B2 Technical Deliverables

Criteria

7.1.4.16

B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.

B.3.1.2.1, B.3.1.3.1,
B.3.1.4.1.1.2, B.3.1.6.1,
B.3.1.7.2, B.3.1.7.3,
B.3.1.7.4, B.3.1.8.1,
B.3.2.1.5, B.3.2.6.1,
B.3.4.1.1, B.3.4.1.13,
B.3.4.2.7.3.1,
B.3.4.2.7.3.1.1,
B.3.4.2.7.3.2,
B.3.4.2.7.7.1,
B.3.4.2.7.7.2, B.3.5.1,
B.3.5.2, B.3.5.3.1.1,
B.3.5.3.1.3, B.3.5.3.1.5,
B.3.5.3.1.6,
B.3.5.3.1.8~,
B.3.5.4.3.2,
B.3.5.4.3.2.1.1,
B.3.5.4.3.2.1.2,
B.3.5.4.3.2.2.1,
B.3.5.4.3.2.2.2,
B.3.5.4.3.4, D.6.2.2

7.1.4.17

B2 Sample of each Fill material or Fill material blend, each 50 to 100 g, and each in a transparent re-sealable bag.

B.3.3.5~, B.3.3.6~

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7.1.5

7.1.5.1

Phase B3 Technical Deliverables

Criteria

B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.

B.3.1.2.1, B.3.1.3.1,
B.3.1.4.1.1,
B.3.1.4.1.1.1,
B.3.1.4.1.1.2,
B.3.1.4.1.1.3, B.3.1.6.1,
B.3.1.7.2, B.3.1.7.3,
B.3.1.7.4, B.3.1.8.1,
B.3.1.10.1, B.3.2.1.3,
B.3.2.1.4, B.3.2.1.5,
B.3.2.2.3, B.3.2.3.2,
B.3.2.4.2, B.3.4.1.1,
B.3.4.1.13,
B.3.4.2.7.3.1,
B.3.4.2.7.3.1.1,
B.3.4.2.7.3.2,
B.3.4.2.7.7.1,
B.3.4.2.7.7.2,
B.3.4.2.7.9.1,
B.3.4.2.7.9.2,
B.3.4.2.7.9.3,
B.3.4.2.7.9.4,
B.3.4.2.7.10.1,
B.3.4.2.7.10.2, B.3.5.1,
B.3.5.2, B.3.5.3.1.1,
B.3.5.3.1.3,
B.3.5.3.1.4~,
B.3.5.3.1.5, B.3.5.3.1.6,
B.3.5.3.1.7,
B.3.5.3.1.8~,
B.3.5.3.1.9, B.3.5.3.2,
B.3.5.4.3.2,
B.3.5.4.3.2.1.1,
B.3.5.4.3.2.1.2,
B.3.5.4.3.2.2.1,
B.3.5.4.3.2.2.2,
B.3.5.4.3.4, B.3.6.1,
B.3.7.3, D.6.3.3.4

7.2 FORMAT AND DATA REQUIREMENTS FOR BID TECHNICAL DELIVERABLES

- 7.2.1 When submitted, each Bid Deliverable above must be clearly identified with the text "BTEP Deliverable" followed by the number of the section where that deliverable is listed in this Bid Technical Evaluation Plan (e.g. "BTEP Deliverable 7.1.3.4").
- 7.2.2 All documents must be written in English or French.
- 7.2.3 Documents of the same type (Certificates of Compliance, Test Reports) that are issued by the same entity should be consolidated, to reduce the number of documents submitted.



- 7.2.4 Parcels used to submit Bid Technical Deliverables must include the name and contact information of the Bidder.

7.2.5 Bid Certificates of Compliance

- 7.2.5.1 A Certificate of Compliance is a written statement guaranteeing that certain objects (products, services, processes, personnel, organizations) comply with certain criteria.
- 7.2.5.2 Each Certificate of Compliance must clearly include:
- 7.2.5.2.1 A statement to the effect that the referenced objects comply with the referenced criteria.
 - 7.2.5.2.2 The name and contact information of the designated representative of the entity that issued the Certificate.
 - 7.2.5.2.3 The name and contact information of the entity that issued the Certificate, if they differ from those of the entity's designated representative.
 - 7.2.5.2.4 The issue date of the Certificate of Compliance (effective start date).
 - 7.2.5.2.5 Descriptive nomenclature for each type of object being certified. When certifying product lots, the descriptive nomenclature must also include the supplier name and lot number.
 - 7.2.5.2.6 The criteria that the objects are certified to comply with.
 - 7.2.5.2.7 Any terms or conditions of the objects' compliance (e.g. expiry date).
 - 7.2.5.2.8 The page number and the total number of pages, on each page of the Certificate.
- 7.2.5.3 All reported test measurements must have been performed no more than 2 years before the Solicitation issue date.
- 7.2.5.4 A complete Test Report in accordance with s. 7.2.6 will be accepted in lieu of a Certificate of Compliance, if the test results demonstrate compliance with the applicable criteria. In such a case, the Test Report must clearly include the text "In lieu of BTEP Deliverable" followed by the section number under which the associated Certificate of Compliance is listed in this Bid Technical Evaluation Plan (e.g. "In lieu of BTEP Deliverable 7.1.3.4").

7.2.6 Bid Test Reports

- 7.2.6.1 All required tests must be conducted by accredited independent laboratories, or university laboratories, or government laboratories, all experienced with testing textiles, and all within the jurisdiction of NATO member states. Testing conducted by any other entities must receive prior written approval from the Technical Authority.
- 7.2.6.2 All Test Reports must clearly include:
- 7.2.6.2.1 The name and contact information of the primary person(s) that performed the test(s) and prepared the Report.
 - 7.2.6.2.2 The name and contact information of the designated representative of the entity that issued the Report.
 - 7.2.6.2.3 The name and contact information of the entity that issued the Report, if they differ from those of the Reporter's designated representative.
 - 7.2.6.2.4 The name and contact information of the supplier of each test sample.
 - 7.2.6.2.5 References to the applicable test methods or specifications.
 - 7.2.6.2.6 Descriptive nomenclature for each type of test specimen.
 - 7.2.6.2.7 The production date, lot number, and a unique identifier, for each test specimen.
 - 7.2.6.2.8 The date the first measurement was obtained for the reported test(s).



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- 7.2.6.2.9 An account of any deviations from the prescribed specimens, conditions, apparatus or procedures.
- 7.2.6.2.10 All measurements and results. Where results suggest inconsistencies, the Report must summarize the possible causes.
- 7.2.6.2.11 The page number and the total number of pages, on each page of the Report.
- 7.2.6.2.12 The issue date of the Report on each page.
- 7.2.6.3 All reported test measurements must have been performed no more than 2 years before the Solicitation issue date.
- 7.2.6.4 Specimens used in reported tests must be taken from the same lots that are referenced in Bid Certificates of Compliance and used in Bid Physical Samples. Test specimens must be selected in a way likely to show the largest variability within a lot.

7.2.7 Bid Physical Samples

- 7.2.7.1 Bid Physical Samples must not bear any permanent markings that could identify the Bidder, their brand, or their product model.
- 7.2.7.2 By submitting Bid Physical Samples, a Bidder certifies that they originate from the same product lots and material lots for which Bid Certificates of Compliance and Bid Test Reports were submitted. The Bidder also certifies that the Bid Physical Samples are equivalent to the specimens featured in the Bid Test Reports, such that if the Bid Physical Samples (or specimens taken from them) were subjected to the same testing, the results would be consistent with those in the Bid Test Reports.
- 7.2.7.3 When submitting Bid Physical Samples, Bidders must affix a tag to each one, or secure them in a container (such as a box, bag, or envelope). If no tags are used, only identical Physical Samples may be placed in the same internal container. Each tag or container must include the following to identify the respective Sample(s):
 - 7.2.7.3.1 The solicitation number (W8486-151419/...);
 - 7.2.7.3.2 An area at least 50 mm by 20 mm that is free of any markings or obstructions, to allow the Contracting Authority to apply an alias for the parent bid;
 - 7.2.7.3.3 Identifying information in accordance with s. 7.2.1.

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ANNEX E

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DIRECTORATE OF SOLDIER SYSTEMS
PROGRAM MANAGEMENT



USER ACCEPTANCE PERFORMANCE EVALUATION 140909
FOR SUPPLYING SLEEPING BAG SYSTEMS



1 SCOPE

1.1 PURPOSE

- 1.1.1 The purpose of the UAPE is for evaluators, consisting of representative Canadian Armed Forces members, to use sleeping bag systems in a field environment and evaluate their performance. Evaluators will conduct a series of simple test stands, culminating in 2 consecutive overnight sleeps using each sleeping bag system. Evaluators will use only one sleeping bag system at a time, and evaluations for that sleeping bag system will be collected at the end of use, prior to moving to another bid's sleeping bag system. Evaluator ratings will be collected by using an industry standard Likert-type questionnaire.

1.2 TERMINOLOGY

- | | | |
|-------|------|---|
| 1.2.1 | DHFA | Deputy Human Factors Advisor. |
| 1.2.2 | HFA | Human Factors Advisor. |
| 1.2.3 | HFO | Human Factors Officer. |
| 1.2.4 | UAPE | User Acceptance Performance Evaluation. |

2 CONCEPT OF OPERATION

- 2.1 The following outlines how the UAPE will be performed:
- 2.1.1 The UAPE will run for two consecutive weeks.
 - 2.1.2 Prior to the UAPE commencing, the sleeping bag systems will be conditioned by machine washing and machine drying all components in accordance with the care instructions provided on each component. The sleeping bag systems will be conditioned again during the UAPE, if necessary.
 - 2.1.3 Department of National Defence staff consisting of a Human Factors Advisor (HFA), Deputy Human Factors Advisor (DHFA), and four Human Factors Officers (HFOs) will coordinate and run the trial.
 - 2.1.4 Evaluators will consist of a representative sample of Canadian Armed Forces members in that they will all be trained members of their respective military occupation, and be within the height ranges specified for 95 percent accommodation in stature and weight, in accordance with the Canadian Forces Anthropometric Survey 2012 data.
 - 2.1.5 The current in-service sleeping bag system will be used as a baseline to both train the evaluators on the use of a sleeping bag system, and to ensure they understand the evaluation process prior to evaluating a bid sleeping bag system.
 - 2.1.6 Twenty-one sleeping bag systems will be required from each awarded trial contract selected to take part in the UAPE as follows: two 5'6" bags, fifteen 6'0" bags, and four 6'6" bags.
 - 2.1.7 Evaluators will have the following body dimensions measured and recorded: 1) height, 2) chest (under the arms), 3) hip circumference, and 4) foot length. Sleeping bag systems will be issued according to the height of the evaluator. For example, an evaluator 5'6" tall will receive the 5'6" sleeping bag system; an evaluator 5'6 1/2" will be issued a 6'0" sleeping bag system. Disproportionally large body measurements relative to an evaluator's height that lead to a size mismatch will be resolved by issuing the next size up. Potential evaluators that fall outside the 95 percent accommodation ellipse of stature and weight will be excluded from the evaluator sample.
 - 2.1.8 If the number of evaluators exceeds the number of sleeping bag systems in sizes 5'6" or 6'0", then the surplus evaluators will be issued a sleeping bag system in the next largest size.



- 2.1.9 The sleeping bag system's performance will be evaluated through the use of a Likert-type questionnaire that will be answered by evaluators. A copy is attached below.
- 2.1.10 The evaluation will consist of a series of "static" test stands and "dynamic" test stands. The static test stands will consist of controlled activities. Each test stand will have its own separate questionnaire. These questionnaires will not be used as part of the basis of selection. Rather, these questionnaires are designed to "focus" the evaluators on human system integration issues. Dynamic test stands consist of 2 nights of sleep under semi-controlled conditions. The first sleep will occur inside a heated building. The second sleep will occur outside, in a tent.
- 2.1.11 During the static test stands, the sleeping bag system configurations used will be imposed by the HFA. For the dynamic test stands, the HFA will provide the local weather forecast and provide the bid's recommended sleeping bag system configuration for that environmental temperature and humidity level. However, the evaluators will be allowed to change the sleeping bag system configurations they are using based on their own personal metabolic production rates and sense of comfort, to ensure they are comfortable for sleeping.
- 2.1.12 Potential sources of evaluator bias will be controlled through an initial briefing on evaluator roles and sources of bias, evaluator training, staff training, scripted test stand protocols, and a counterbalanced order of exposure to bid sleeping bag systems.

3 METHOD

3.1 STATIC TEST STANDS

- 3.1.1 Four test stands will be used to assess the performance of the baseline in-service sleeping bag system (first) followed by the bid sleeping bag systems. A description of each test stand is as follows:

3.1.2 Intuitiveness Test Stand

- 3.1.2.1 Using the sleeping bag system's Product Manual, the in-service Self-Inflating Mattress, and without further guidance, evaluators will be asked to configure the sleeping bag system for sleep in an extreme cold winter environment on their own. Once the evaluator has configured the sleeping bag system as best as they can, the sleeping bag system configuration will be verified by the HFO and any errors will be corrected. The evaluator will then do the same task, but this time the sleeping bag system will be configured for sleep in a warm damp environment using the in-service Self-Inflating Mattress and Bivy Bag. Again, the configuration of the sleeping bag system will be verified by the HFO, and any required corrections made. Evaluators will then complete a questionnaire designed to evaluate the intuitiveness of the bid sleeping bag system.

3.1.3 Usability Test Stand

- 3.1.3.1 Evaluators will configure the sleeping bag system as instructed by the evaluation staff. Evaluators will enter the sleeping bag system and, starting from a defined start position, will assume standardized body postures within the sleeping bag system. Postures have been selected to maximize movement in the sleeping bag system. In addition, evaluators will perform various reach exercises for articles located within the vicinity of the sleeping bag system. Evaluators will then exit the sleeping bag system and complete a usability questionnaire. This test will be performed once using the 10 clo configuration, once using the 6.5 clo configuration, and once using the 4 clo configuration.



3.1.4 Configurability and Compatibility Test Stand

- 3.1.4.1 Evaluators will combine the sleeping bag system, in-service Self-Inflating Mattress and Bivy Bag together as a ready-to-sleep system. Evaluators will pack and compress the bulkiest thermal configuration of the sleeping bag system (determined in accordance with the previously submitted packing volume test report) into the in-service Waterproof Compression Sack, and stow the Waterproof Compression Sack into the in-service Rucksack. Only the sleeping bag system will be put in the Waterproof Compression Sack. Evaluators will then complete a configurability and compatibility questionnaire.

3.2 DYNAMIC FIELD EXERCISE

- 3.2.1 Once all static test stands have been completed, evaluators will be required to sleep in each sleeping bag system in two environments. The first environment will be in a heated building. The second environment will be outside in an unheated tent. Prior to sleeping, evaluators will be provided a briefing on overnight weather conditions followed by the recommended thermal configurations recommended in the Product Manual, based on the anticipated weather for that night. However, evaluators will be allowed to increase or decrease their levels of insulation to ensure they have maximum personal comfort for sleeping in each environment. Evaluators will perform two overnight sleeps in each sleeping bag system, including the in-service sleeping bag system, for a total of six overnight sleeps over the course of the UAPE.

4 USER EXIT QUESTIONNAIRE

4.1 QUESTIONNAIRE SAMPLE

- 4.1.1 A draft sample of the front and back of the User Exit Questionnaire is provided below.



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Evaluation Date (dd/mm/yy):		Participant ID:				
Which sleeping bag system is being evaluated in this questionnaire?						
Bidder System A		Bidder System B				
O		O				
Using the scale provided, please rate the sleeping system for the following criteria:		In-service System				
		O				
	Totally Unacceptable	Slightly Unacceptable	Neutral	Slightly Acceptable	Acceptable	Perfectly Acceptable
Product Manual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Configurability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ingress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Egress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical Comfort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thermal Comfort	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moisture Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ease of Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compression Sack Compatibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bivy Bag Compatibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-Inflating Mattress Compatibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Durability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participant Signature:		Witness Signature:				

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ANNEX E

Comments:

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4.2 DEFINITIONS OF QUESTIONNAIRE TERMS

4.2.1	Bivy Bag Compatibility	The ability to use the sleeping bag system inside the in-service Bivy Bag.
4.2.2	Compression Sack Compatibility	How quick and easy it is to pack, and sufficiently compress the sleeping bag system into the in-service Waterproof Compression Sack, such that the sleeping bag system and Water Proof Compression can be stowed inside the in-service Rucksack.
4.2.3	Configurability	The ability to configure the sleeping bag system for the environmental conditions.
4.2.4	Durability	The ability of the sleeping bag system to withstand the rigours of field use.
4.2.5	Ease of Use	How easy it is to use the sleeping bag system, for example, sliding any zippers or other fasteners, configuring or shaping the hood (where applicable), or using any other sleeping bag features.
4.2.6	Egress	The ease and speed with which a user can undo the sleeping bag system and exit it in all configurations.
4.2.7	Fit	The ability of a user, when inside the bag, to have sufficient room to be able to easily move to a position of physical comfort.
4.2.8	Ingress	The ease with which a user can undo the sleeping bag system, enter it, and close it up, in all configurations.
4.2.9	Moisture Management	The ability to control or eliminate user-generated moisture buildup inside the sleeping bag system or within and between sleeping bag system layers.
4.2.10	Physical Comfort	The absence of painful or physically uncomfortable sensations caused by using the sleeping bag system.
4.2.11	Product Manual	The clarity, legibility, utility and presentation of any products that provide instruction on sleeping bag system use and care.
4.2.12	Self-Inflating Mattress Compatibility	The ability to use the sleeping bag system on the in-service Self-Inflating Mattress.
4.2.13	Thermal Comfort	The ability of the sleeping bag system to ensure that the user is kept at the right body temperature to be able to sleep.



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**BID TECHNICAL EVALUATION MATRIX 131213
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ANNEX F

Column	P	R	V	W	X	Y	AB	AH	AN				
	Bid Deliverables												
Row	Criteria			Requirements			Phase B1			Phase B2		Phase B3	
0	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit	Points (Max)							
8	B.3.1.2.1	SBS must have 3 or more Sleeping Modules.	3	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.				
10	B.3.1.3.1	10-clo configuration provides full body coverage, and face opening can be reduced to 14 cm or less.	.	14	cm	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.				
11	B.3.1.3.1	6.5-clo configuration provides full body coverage, and face opening can be reduced to 14 cm or less.	.	14	cm	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.				
12	B.3.1.3.1	4-clo configuration provides full body coverage, and face opening can be reduced to 14 cm or less.	.	14	cm	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.				
15	B.3.1.4.1.1	The Sleeping Bag System must be available in the following sizes to comfortably fit users as specified.	.	.	.	M	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.				
16	B.3.1.4.1.1.1	Sleeping Bag System provided in size 5'6".	.	.	.	M	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.				
17	B.3.1.4.1.1.2	Sleeping Bag System provided in size 6'0".	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.				

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Column	P	R	V	W	X	Y	AB	AH	AN
Row	Bid Deliverables								
	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
18	B.3.1.4.1.1.3	Sleeping Bag System provided in size 66".	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
32	B.3.1.6.1	Sleeping Modules must not have a side opening solely on the right-hand side.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 60", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
35	B.3.1.7.2	Sleeping Bag System must have a Hygiene Liner.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 60", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
36	B.3.1.7.3	The Hygiene Liner must be the Sleeping Module worn closest to the user.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 60", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
37	B.3.1.7.4	Hygiene Liner must conform to Drying Time requirements.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 60", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
40	B.3.1.8.1	Sleeping Bag System must have at least 1 Insulated Collar that provides a close fit around user's neck.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 60", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
44	B.3.1.10.1	Sleeping Bag System must include a Storage Bag to protect it.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.

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ANNEX F

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Column	P	R	V	W	X	Y	AB	AH	AN
Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
54	B.3.2.1.1	The thermal insulation of each thermal configuration listed must be tested and reported as specified.	.	.	.	M	B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
55	B.3.2.1.1.1	A size 60" of each Sleeping Module that is not a Hygiene Liner must be laundered as specified. The name, address, and point of contact of the laundering facility must be reported, along with the make and model of the washer and dryer.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
56	B.3.2.1.1.2	A size 60" Hygiene Liner must be laundered as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
57	B.3.2.1.1.3	A Self-Inflating Mattress must be tested as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
58	B.3.2.1.1.4	During conditioning, all Sleeping Modules must be separated as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
59	B.3.2.1.1.5	The manikin must be outfitted in a Sleeping Bag System that has been laundered and configured as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
60	B.3.2.1.1.6	The outfitted manikin must then be encased in the Bivy Bag as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
61	B.3.2.1.1.7	The Self-Inflating Mattress must be inflated as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	



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ANNEX F

Column	P	R	V	W	X	Y	AB	AH	AN
Row	Bid Deliverables								
0	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
62	B.3.2.1.1.8	Using the same Sleeping Bag System, 3 independent replications must be conducted as specified.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
63	B.3.2.1.2	Thermal testing labs other than KSU IER must be approved by the TA.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
66	B.3.2.1.3	The Sleeping Bag System must be able to assume 3 different thermal configurations that meet the requirements below when tested as specified. The thermal insulation of each thermal configuration should be as low as possible while still meeting the respective minimum requirements below.	.	.	.	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
67	B.3.2.1.3.1	Insulation of 10-clo configuration.	10.0	.	clo	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
68	B.3.2.1.3.1	Insulation of 10-clo configuration (points are attributable for achieving lower values below the specified maximum, while still meeting the specified minimum).	.	12.0	clo	24		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
69	B.3.2.1.3.2	Insulation of 6.5-clo configuration.	6.5	.	clo	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
70	B.3.2.1.3.2	Insulation of 6.5-clo configuration (points are attributable for achieving lower values below the specified maximum, while still meeting the specified minimum).	.	8.0	clo	24		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	
71	B.3.2.1.3.3	Insulation of 4-clo configuration.	4.0	.	clo	M		B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	

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Column	P	R	V	W	X	Y	AB	AH	AN
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Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
72	B.3.2.1.3.3	Insulation of 4-clo configuration (points are attributable for achieving lower values below the specified maximum, while still meeting the specified minimum).	.	5.0	clo	24	.	B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	.
73	B.3.2.1.4	Each configuration above must include a Hygiene Liner, and that Hygiene Liner must not be the only Sleeping Module in the configuration.	.	.	.	M	.	B2 Report of thermal insulation test, submitted with the size 60" Sleeping Bag System specimen that was tested, in any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
74	B.3.2.1.5	Each configuration above must be referenced in the Supplier's Product Manual.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
76	B.3.2.2.1	The flammability of each thermal configuration must be tested and reported as specified.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	.
77	B.3.2.2.1.1	The test report must include certification by the laboratory that the specimens were cut and prepared as specified.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	.
78	B.3.2.2.1.2	Laundering conditions must be as specified.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	.
79	B.3.2.2.1.3	Configurations must be tested without the Bivy Bag and Self-inflating Mattress.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	.
80	B.3.2.2.1.4	Each set of 5 specimens must be representative of the different construction and materials throughout the length of the Sleeping Bag System.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	.
81	B.3.2.2.2	Flammability testing labs other than Govmark must be approved by the TA.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	.
84	B.3.2.2.3	When tested as specified, each thermal configuration must meet the following performance requirements.	.	.	.	M	.	B2 Report of flammability test of all thermal configurations.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 56", (15) size 60", (4) size 66", each packed per the Specification, each with 1 Sample of the draft Product Manual.
85	B.3.2.2.3.1	Average burn rate of 10-clo configuration.	.	15	cm/min	24	.	B2 Report of flammability test of all thermal configurations.	.

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Column	P	R	V	W	X	Y	AB	AH	AN
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Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
86	B.3.2.2.3.1	Average burn rate of 6.5-clo configuration.	.	15	cm/min	24	.	B2 Report of flammability test of all thermal configurations.	.
87	B.3.2.2.3.1	Average burn rate of 4-clo configuration.	.	15	cm/min	24	.	B2 Report of flammability test of all thermal configurations.	.
88	B.3.2.2.3.2	Highest individual specimen burn rate of all thermal configurations.	.	20	cm/min	M	.	B2 Report of flammability test of all thermal configurations.	.
90	B.3.2.3.1	The mass of each Sleeping Module must be tested and reported as specified.	.	.	.	M	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
91	B.3.2.3.1.1	The test must be conducted using a scale as specified.	.	.	.	M	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
92	B.3.2.3.1.2	Each Sleeping Module must be conditioned in a tumble dryer as specified.	.	.	.	M	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
93	B.3.2.3.1.3	The mass of each thermal configuration must be calculated from the combined masses of its Sleeping Modules and reported.	.	.	.	M	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
94	B.3.2.3.2	When tested as specified, the mass of each thermal configuration must not exceed the following values, and should be as low as possible.	.	.	.	M	.	B2 Report of mass test of all thermal configurations, size 6'0".	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
98	B.3.2.3.2.2	Mass of size 6'0", 10-clo configuration.	.	4,000	g	36	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
99	B.3.2.3.2.2	Mass of size 6'0", 6.5-clo configuration.	.	4,000	g	36	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
100	B.3.2.3.2.2	Mass of size 6'0", 4-clo configuration.	.	4,000	g	36	.	B2 Report of mass test of all thermal configurations, size 6'0".	.
105	B.3.2.4.1	The packing volume of each thermal configuration listed must be tested and reported as specified.	.	.	.	M	.	B2 Report of packing volume test of all thermal configurations, size 6'0".	.
106	B.3.2.4.1.1	The Sleeping Modules must be inserted into the cylinder as specified.	.	.	.	M	.	B2 Report of packing volume test of all thermal configurations, size 6'0".	.
108	B.3.2.4.2	When tested as specified, the packing volume of each configuration must not exceed the following values, and should be as low as possible.	.	.	.	M	.	B2 Report of packing volume test of all thermal configurations, size 6'0".	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
112	B.3.2.4.2.2	Packing volume of size 6'0", 10-clo configuration.	.	28,000	cm ³	36	.	B2 Report of packing volume test of all thermal configurations, size 6'0".	.
113	B.3.2.4.2.2	Packing volume of size 6'0", 6.5-clo configuration.	.	28,000	cm ³	36	.	B2 Report of packing volume test of all thermal configurations, size 6'0".	.



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ANNEX F

Column	P	R	V	W	X	Y	AB	AH	AN
Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
114	B.3.2.4.2.2	Packing volume of size 6'0", 4-clo configuration.	.	28,000	cm ³	36	.	B2 Report of packing volume test of all thermal configurations, size 6'0".	.
122	B.3.2.6.1	When tested as specified, the Hygiene Liner must be 75 % dry in 120 minutes or less.	75	.	%	48	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.	.
125	B.3.3.2	Hygiene Liner Fabric	.	.	.	M	B1 Sample of each Hygiene Liner fabric, each 2 metres long (by full width wide), in any colour. Of the referenced criteria, each Sample is only required to meet the criteria for which a Certificate of Compliance or Test Report is required in Phase B1.	.	.
134	B.3.3.2.4.1	Anti-microbial products used must be acceptable for use on a textile substrate that will be in direct, prolonged contact with the skin.	.	.	.	M	.	B2 CoC of Liner fabric's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	.
135	B.3.3.2.4.2	Anti-microbial product registration requirements.	.	.	.	M	.	B2 CoC of Liner fabric's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	.
137	B.3.3.2.5.1	Liner fabric vertical wicking properties must be tested in accordance with the following procedure.	.	.	.	M	B1 Report of Liner fabric vertical wicking test.	.	.
141	B.3.3.2.5.1.2.1	The test specimens must be conditioned as specified.	.	.	.	M	B1 Report of Liner fabric vertical wicking test.	.	.
143	B.3.3.2.5.1.3.1	6 specimens must be cut and marked as specified.	.	.	.	M	B1 Report of Liner fabric vertical wicking test.	.	.
146	B.3.3.2.5.1.4.1	Vertical wicking test must be conducted as specified.	.	.	.	M	B1 Report of Liner fabric vertical wicking test.	.	.
149	B.3.3.2.5.1.6.1	Wicking results must be reported as specified.	.	.	.	M	B1 Report of Liner fabric vertical wicking test.	.	.
151	B.3.3.2.6.1	Liner fabric heat resistance.	.	.	.	M	B1 Report of Liner fabric heat resistance test.	.	.
152	B.3.3.2.6.2	Liner fabric thermal shrinkage.	.	10	%	M	B1 Report of Liner fabric thermal shrinkage test.	.	.
153	B.3.3.2.6.3	Liner fabric thermal stability.	.	.	.	M	B1 Report of Liner fabric thermal stability test.	.	.
154	B.3.3.2.6.4	Liner fabric flame resistance.	7	.	s	M	B1 CoC of Liner fabric flame resistance.	.	.

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Column	P	R	V	W	X	Y	AB	AH	AN
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Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
155	B.3.3.2.6.5	Liner fabric electrical resistivity, face.	1 x 10 ⁶	1 x 10 ¹²	Ω/square	M	B1 Report of Liner fabric electrical resistivity test.	.	.
156	B.3.3.2.6.6	Liner fabric electrical resistivity, back.	1 x 10 ⁶	1 x 10 ¹²	Ω/square	M	B1 Report of Liner fabric electrical resistivity test.	.	.
157	B.3.3.2.6.7	Liner fabric anti-bacterial assessment, as received, reduction.	99.9	.	%	M	.	B2 Report of Liner fabric anti-bacterial assessment.	.
158	B.3.3.2.6.8	Liner fabric anti-bacterial assessment, after laundering, reduction.	90	.	%	M	.	B2 Report of Liner fabric anti-bacterial assessment.	.
159	B.3.3.2.6.9	Liner fabric anti-fungal assessment, as received, surface inhibition.	100	.	%	M	.	B2 Report of Liner fabric anti-fungal assessment.	.
160	B.3.3.2.6.10	Liner fabric anti-fungal assessment, as received, growth-free zone.	.	0	mm	M	.	B2 Report of Liner fabric anti-fungal assessment.	.
161	B.3.3.2.6.11	Liner fabric anti-fungal assessment, after laundering, surface inhibition.	100	.	%	M	.	B2 Report of Liner fabric anti-fungal assessment.	.
162	B.3.3.2.6.12	Liner fabric anti-fungal assessment, after laundering, growth-free zone.	.	0	mm	M	.	B2 Report of Liner fabric anti-fungal assessment.	.
163	B.3.3.2.6.13	Liner fabric vertical wicking, after laundering, lengthwise direction.	10	.	cm	12	B1 Report of Liner fabric vertical wicking test.	.	.
164	B.3.3.2.6.14	Liner fabric vertical wicking, after laundering, crosswise direction.	10	.	cm	12	B1 Report of Liner fabric vertical wicking test.	.	.
171	B.3.3.2.6.21~	Liner fabric bursting strength, if knit.	50	.	psi	M	B1 Report of Liner fabric bursting strength test, if knit.	.	.
172	B.3.3.2.6.22~	Liner fabric tearing strength, if woven, warp direction.	10	.	N	M	B1 Report of Liner fabric tearing strength test, if woven.	.	.
173	B.3.3.2.6.23~	Liner fabric tearing strength, if woven, weft direction.	10	.	N	M	B1 Report of Liner fabric tearing strength test, if woven.	.	.
174	B.3.3.2.6.24	Liner fabric pilling rating after 30 minutes (face and back).	3	.	.	M	B1 CoI/C of Liner fabric pilling resistance.	.	.
175	B.3.3.2.6.25~	Liner fabric dimensional stability after laundering, if knit, length.	.	5.0	%	M	B1 Report of Liner fabric dimensional stability test after laundering, if knit.	.	.
176	B.3.3.2.6.26~	Liner fabric dimensional stability after laundering, if knit, width.	.	5.0	%	M	B1 Report of Liner fabric dimensional stability test after laundering, if knit.	.	.
177	B.3.3.2.6.27~	Liner fabric dimensional stability after laundering, if woven, warp.	.	3.0	%	M	B1 Report of Liner fabric dimensional stability test after laundering, if woven.	.	.
178	B.3.3.2.6.28~	Liner fabric dimensional stability after laundering, if woven, weft.	.	3.0	%	M	B1 Report of Liner fabric dimensional stability test after laundering, if woven.	.	.



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Column	P	R	V	W	X	Y	AB	AH	AN
Row	Bid Deliverables								
0	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
179	B.3.3.3	Shell Fabric	.	.	.	M	B1 Sample of each Shell fabric, each 2 metres long (by full width wide), in any colour. Of the referenced criteria, each Sample is only required to meet the criteria for which a Certificate of Compliance or Test Report is required in Phase B1.	.	.
190	B.3.3.3.2.2.1	Shell fabric moisture regain value.	.	5	%	M	B1 CoF of Shell fabric moisture regain value.	.	.
194	B.3.3.3.2.2.5	Shell fabric breaking strength, warp direction.	400	.	N	M	B1 CoF of Shell fabric breaking strength.	.	.
195	B.3.3.3.2.2.6	Shell fabric breaking strength, weft direction.	325	.	N	M	B1 CoF of Shell fabric breaking strength.	.	.
196	B.3.3.3.2.2.7	Shell fabric tearing strength, warp direction.	15	.	N	12	B1 Report of Shell fabric tearing strength test.	.	.
197	B.3.3.3.2.2.8	Shell fabric tearing strength, weft direction.	14	.	N	12	B1 Report of Shell fabric tearing strength test.	.	.
198	B.3.3.3.2.2.9	Shell fabric dimensional stability in laundering, warp.	.	3.0	%	M	B1 Report of Shell fabric dimensional stability test after laundering.	.	.
199	B.3.3.3.2.2.10	Shell fabric dimensional stability in laundering, weft.	.	3.0	%	M	B1 Report of Shell fabric dimensional stability test after laundering.	.	.
201	B.3.3.3.2.2.12	Shell fabric water repellency after laundering.	70	.	.	48	B1 Report of Shell fabric water repellency test, after laundering.	.	.
203	B.3.3.3.2.2.14	Shell fabric oil repellency after laundering.	4	.	.	48	B1 Report of Shell fabric oil repellency test, after laundering.	.	.
204	B.3.3.3.2.2.15	Shell fabric abrasion resistance.	90,000	.	cycles	24	B1 Report of Shell fabric abrasion resistance test.	.	.
205	B.3.3.3.2.2.16	Shell fabric seam(s) slippage at 3 mm, warp.	100	.	N	12	B1 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types.	.	.
206	B.3.3.3.2.2.17	Shell fabric seam(s) slippage at 3 mm, weft.	125	.	N	12	B1 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types.	.	.
207	B.3.3.3.2.2.18	Shell fabric seam(s) slippage at 6 mm, warp.	200	.	N	12	B1 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types.	.	.
208	B.3.3.3.2.2.19	Shell fabric seam(s) slippage at 6 mm, weft.	200	.	N	12	B1 Report of Shell fabric seam slippage test at 3 & 6 mm, all seam types.	.	.
209	B.3.3.3.2.2.20	Chemical resistance to diesel fuel.	.	.	.	M	B1 CoF of Shell fabric chemical resistance.	.	.
210	B.3.3.3.2.2.21	Chemical resistance to gasoline.	.	.	.	M	B1 CoF of Shell fabric chemical resistance.	.	.



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Column	P	R	V	W	X	Y	AB	AH	AN
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Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
211	B.3.3.3.2.2.22	Chemical resistance to lubricating oil.	.	.	.	M	B1 Co/C of Shell fabric chemical resistance.	.	.
212	B.3.3.3.2.2.23	Chemical resistance to degreasers, cleaning agent.	.	.	.	M	B1 Co/C of Shell fabric chemical resistance.	.	.
213	B.3.3.3.2.2.24	Chemical resistance to insect repellent liquid.	.	.	.	M	B1 Co/C of Shell fabric chemical resistance.	.	.
226	B.3.3.5~	Down and Feather Fill	.	.	.	M	B2 Sample of each Fill material or Fill material blend, each 50 to 100 g, and each in a transparent re-sealable bag.	.	.
232	B.3.3.5.1.2.1~	Plumage composition must be tested and reported as specified.	.	.	.	M	B2 Report of Plumage composition test.	.	.
233	B.3.3.5.1.2.2~	When tested as specified, plumage must be found to originate from domesticated waterfowl (duck or goose), with no more than 1 % originating from landfowl.	.	1	%	M	B2 Report of Plumage composition test.	.	.
236	B.3.3.5.1.3.1~	Plumage must be guaranteed 100 % new, de-dusted, washed, dried and sterilized. Reclaimed, reprocessed or reused plumage must not be used. Brittle, crushed or otherwise damaged feathers must not be used.	.	.	.	M	B2 Co/C of Plumage quality.	.	.
238	B.3.3.5.1.4.1~	Anti-microbial products used must be acceptable for use on a substrate that will be in direct, prolonged contact with the skin.	.	.	.	M	B2 Co/C of Plumage's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	.	.
239	B.3.3.5.1.4.2~	Anti-microbial product registration requirements.	.	.	.	M	B2 Co/C of Plumage's anti-microbial product being acceptable for use as specified, submitted with the applicable registration number of the anti-microbial product.	.	.
249	B.3.3.5.1.7.1~	Plumage oxygen number.	.	5	.	M	B2 Report of Plumage oxygen number test.	.	.
250	B.3.3.5.1.7.2~	Plumage turbidity.	750	.	mm	M	B2 Report of Plumage turbidity test.	.	.
251	B.3.3.5.1.7.3~	Plumage fat and oil content.	0.5	2.0	%	M	B2 Report of Plumage fat and oil content test.	.	.
252	B.3.3.5.1.7.4~	Plumage pH.	6	8	.	M	B2 Report of Plumage pH test.	.	.
253	B.3.3.5.1.7.5~	Plumage anti-bacterial assessment, as received.	80	.	%	M	B2 Report of Plumage anti-bacterial assessment.	.	.



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Column	P	R	V	W	X	Y	AB	AH	AN
Row	Bid Deliverables								
	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
254	B.3.3.5.1.7.6~	Plumage anti-bacterial assessment, after laundering.	70	.	%	M	.	B2 Report of Plumage anti-bacterial assessment.	.
259	B.3.3.6~	Synthetic Fibre Fill	.	.	.	M	.	B2 Sample of each Fill material or Fill material blend, each 50 to 100 g, and each in a transparent re-sealable bag.	.
263	B.3.4.1.1	Each item (Sleeping Module, Storage Bag, Product Manual) must have its own markings.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any size 5'6", (15) size 6'0", (4) size 6'6", colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.
275	B.3.4.1.13	Markings must have sufficient visual contrast with the surface they are applied to, to be legible.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.
296	B.3.4.2.7.3.1	Each item must be marked with its NSN and English and French NATO short description.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.
297	B.3.4.2.7.3.1.1	Marking data and format for NSN and NATO short description.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.
298	B.3.4.2.7.3.2	Bidders must use their own part number(s) and their own short description(s) until contract award.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.
310	B.3.4.2.7.7.1	Marking data and format for Production Date.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.



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ANNEX F

Column	P	R	V	W	X	Y	AB	AH	AN
Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
311	B.3.4.2.7.7.2	Additional marking data and format for Production Date.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
317	B.3.4.2.7.9.1	Marking data and format for Care/Maintenance/Storage Instructions.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
318	B.3.4.2.7.9.2	Care, maintenance, and storage instructions must pertain to the item being marked.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
319	B.3.4.2.7.9.3	Care instructions must include washing and drying procedures that make full use of commonly available domestic or commercial machines.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
320	B.3.4.2.7.9.4	Care symbols must be as specified.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
322	B.3.4.2.7.10.1	Marking data and format for Hazard Warnings.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
323	B.3.4.2.7.10.2	Hazard warnings must pertain to the Sleeping Module being marked.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.

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Row	Bid Deliverables								
	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
			Min	Max	Unit				
342	B.3.5.1	The Sleeping Bag System must include a hard copy illustrated Product Manual.	.	.	.	M		B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any size 5'6", (15) size 6'0", (4) size 6'6", colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.
343	B.3.5.2	When the Product Manual is closed, its width and length dimensions must each be as specified.	9	22	cm	M		B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.
346	B.3.5.3.1.1	Product Manual must include a description of the design and intended use of the Sleeping Bag System.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.
348	B.3.5.3.1.3	Product Manual must include an illustrated list of parts with unique part and assembly names and NSNs as specified.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.
349	B.3.5.3.1.4~	<i>Product Manual must include illustrated instructions for initial user assembly, if applicable.</i>	.	.	.	M			<i>B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.</i>
350	B.3.5.3.1.5	Product Manual must include illustrated configuration instructions for combining the Sleeping Modules into the specified thermal configurations, and making any adjustments.	.	.	.	M		B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.
355	B.3.5.3.1.6	Product Manual must include recommended instructions for using the Sleeping Bag System with the current Canadian Armed Forces equipment specified.	.	.	.	M		B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", in each packed per the Specification, each with 1 Sample of the draft Product Manual.

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Row	Criteria		Requirements			Points (Max)	Bid Deliverables		
	Document Reference	Criterion Summary (see reference for details)	Min	Max	Unit		Phase B1	Phase B2	Phase B3
356	B.3.5.3.1.7	Product Manual must include the recommended size of Bivy Bag to use with each standard size of Sleeping Bag System. Bivy Bag sizes are as follows.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
359	B.3.5.3.1.8~	Product Manual must include recommended packing configurations and instructions, if any.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
360	B.3.5.3.1.9	Product Manual must include instructions for the preferred methods to care for, clean, sanitize, dry, and revitalize each Sleeping Module.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
367	B.3.5.3.2	The Product Manual must be written in English and French.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
377	B.3.5.4.3.2	Each Product Manual must be marked on its outer cover with the Marking Data as specified.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
379	B.3.5.4.3.2.1.1	Marking data and format for Product Manual Title.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
380	B.3.5.4.3.2.1.2	The NSN of the Family Head will be provided upon Contract award. Until such time, Bidders must use their own part number(s).	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.



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ANNEX F

Column	P	R	V	W	X	Y	AB	AH	AN
Row	Bid Deliverables								
	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
0									
382	B.3.5.4.3.2.2.1	Marking data and format for Product Manual Edition.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.
383	B.3.5.4.3.2.2.2	Additional marking data and format for Product Manual Edition.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each with 1 Sample of the draft Product Manual.

BID TECHNICAL EVALUATION MATRIX 131213 FOR SUPPLYING SLEEPING BAG SYSTEMS

NOTICE: This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.



AVIS: Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manipulation reçues originalement doivent continuer de s'appliquer.

Column	P	R	V	W	X	Y	AB	AH	AN
Row	Bid Deliverables								
	Document Reference	Criteria (see reference for details)	Requirements			Points (Max)	Phase B1	Phase B2	Phase B3
0			Min	Max	Unit				
387	B.3.5.4.3.4	Each page of the Product Manual, including any inner and outer cover pages, must be marked with their respective page number and the total number of pages.	.	.	.	M	B1 Sample of draft Product Manual.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in each packed per the Specification, any suitably protective packaging.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
392	B.3.6.1	Every Sleeping Bag System ordered must be packed in its own Sleeping Bag System Storage Bag with 1 Product Manual.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
396	B.3.7.3	Each Sleeping Bag System packed in a Storage Bag must include a tag on its Storage Bag. The tag must be marked as specified.	.	.	.	M	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.
425	D.6.1.2	Each bid must include a signed Letter of Consent that gives the relevant laboratories permission to directly discuss that bid's test(s) and test result(s) with the Government of Canada.	.	.	.	M	B1 Letter of Consent to laboratory discussion with the Government of Canada.	.	.
429	D.6.2.2	During the B2 Evaluation Period, applicable Sleeping Modules from the above Sleeping Bag System sample will be conditioned and tested by the Department of National Defence, in accordance with the drying procedure as specified.	.	.	.	M	.	B2 Sample of Sleeping Bag System, in new condition, size 6'0", in any colour, with a draft Product Manual, in any suitably protective packaging.	.
438	D.6.3.3.4	The Sleeping Bag System's User Acceptance Score will be calculated as the sum of its User Exit Questionnaire Scores.	2,000	.	.	624	.	.	B3 Samples of Sleeping Bag System, in new condition, in any colour, (2) size 5'6", (15) size 6'0", (4) size 6'6", each packed per the Specification, each with 1 Sample of the draft Product Manual.

Terminology:

~: References followed by a tilde (~) might not apply to all bids. Associated information is written in *italics*.

Cofc: Certificate of Compliance.

M: Mandatory (Unrated).

**ANNEX "G" to PART 5 - BID SOLICITATION
FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION**

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\)-Labour's](#) website.

Date: _____(YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Bidder certifies having no work force in Canada.
- ☐ A2. The Bidder certifies being a public sector employer.
- ☐ A3. The Bidder certifies being a [federally regulated employer](#) being subject to the [Employment Equity Act](#).
- ☐ A4. The Bidder certifies having a combined work force in Canada of less than 100 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).
- A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

- ☐ A5.1. The Bidder certifies already having a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with ESDC-Labour.

OR

- ☐ A5.2. The Bidder certifies having submitted the [Agreement to Implement Employment Equity](#) (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- ☐ B1. The Bidder is not a Joint Venture.

OR

- ☐ B2. The Bidder is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)

TASK AUTHORIZATION AUTORISATION DES TÂCHES

All invoices/progress claims must show the reference Contract and Task numbers. Toutes les factures doivent indiquer les numéros du contrat et de la tâche.		Contract no. – N° du contrat
		Task no. – N° de la tâche
Amendment no. – N° de la modification	Increase/Decrease – Augmentation/Réduction	Previous value – Valeur précédente
To – À	TO THE CONTRACTOR You are requested to supply the following services in accordance with the terms of the above reference contract. Only services included in the contract shall be supplied against this task. Please advise the undersigned if the completion date cannot be met. Invoices/progress claims shall be prepared in accordance with the instructions set out in the contract. À L'ENTREPRENEUR Vous êtes prié de fournir les services suivants en conformité des termes du contrat mentionné ci-dessus. Seuls les services mentionnés dans le contrat doivent être fournis à l'appui de cette demande. Prière d'aviser le signataire si la livraison ne peut se faire dans les délais prescrits. Les factures doivent être établies selon les instructions énoncées dans le contrat.	
Delivery location – Expédié à	<div style="display: flex; justify-content: space-between;"> <div>_____</div> <div>_____</div> </div> <div style="display: flex; justify-content: space-between; font-size: small;"> <div>Date</div> <div>for the Department of National Defence pour le ministère de la Défense nationale</div> </div>	
Delivery/Completion date – Date de livraison/d'achèvement		
Contract item no. N° d'article du contrat	Services	Cost Prix
	GST/HST TPS/TVH	
	Total	
<p>APPLICABLE ONLY TO PWGSC CONTRACTS: The Contract Authority signature is required when the total value of the DND 626 exceeds the threshold specified in the contract.</p> <p>NE S'APPLIQUE QU'AUX CONTRATS DE TPSGC : La signature de l'autorité contractante est requise lorsque la valeur totale du formulaire DND 626 est supérieure au seuil précisé dans le contrat.</p> <div style="border-top: 1px solid black; margin-top: 20px; padding-top: 5px;"> _____ for the Department of Public Works and Government Services pour le ministère des Travaux publics et services gouvernementaux </div>		

Instructions for completing DND 626 - Task Authorization

Contract no.

Enter the PWGSC contract number in full.

Task no.

Enter the sequential Task number.

Amendment no.

Enter the amendment number when the original Task is amended to change the scope or the value.

Increase/Decrease

Enter the increase or decrease total dollar amount including taxes.

Previous value

Enter the previous total dollar amount including taxes.

To

Name of the contractor.

Delivery location

Location where the work will be completed, if other than the contractor's location.

Delivery/Completion date

Completion date for the task.

for the Department of National Defence

Signature of the DND person who has delegated **Authority** for signing DND 626 (level of authority based on the dollar value of the task and the equivalent signing authority in the PAM 1.4). **Note:** the person signing in this block ensures that the work is within the scope of the contract, that sufficient funds remain in the contract to cover this task and that the task is affordable within the Project/Unit budget.

Services

Define the requirement briefly (attach the SOW) and identify the cost of the task using the contractor's quote on the level of effort. The Task must use the basis of payment stipulated in the contract. If there are several basis of payment then list here the one(s) that will apply to the task quote (e.g. milestone payments; per diem rates/labour category hourly rates; travel and living rates; firm price/ceiling price, etc.). All the terms and conditions of the contract apply to this Task Authorization and cannot be ignored or amended for this task. Therefore it is not necessary to restate these general contract terms and conditions on the DND 626 Task form.

Cost

The cost of the Task broken out into the individual costed items in **Services**.

GST/HST

The GST/HST cost as appropriate.

Total

The total cost of the task. The contractor may not exceed this amount without the approval of DND indicated on an amended DND 626. The amendment value may not exceed 50% (or the percentage for amendments established in the contract) of the original value of the task authorization. The total cost of a DND 626, including all amendments, may not exceed the funding limit identified in the contract.

Applicable only to PWGSC contracts

This block only applies to those Task Authorization contracts awarded by PWGSC. The contract will include a specified threshold for DND sole approval of the DND 626 and a percentage for DND to approve amendments to the original DND 626. Tasks that will exceed these thresholds must be passed to the PWGSC Contracting Authority for review and signature prior to authorizing the contractor to begin work.

Note:

Work on the task may not commence prior to the date this form is signed by the DA Authority - for tasks within the DND threshold; and by both DND and PWGSC for those tasks over the DND threshold.

Instructions pour compléter le formulaire DND 626 - Autorisation des tâches

N° du contrat

Inscrivez le numéro du contrat de TPSGC en entier.

N° de la tâche

Inscrivez le numéro de tâche séquentiel.

N° de la modification

Inscrivez le numéro de modification lorsque la tâche originale est modifiée pour en changer la portée.

Augmentation/Réduction

Inscrivez le montant total de l'augmentation ou de la diminution, y compris les taxes.

Valeur précédente

Inscrivez le montant total précédent, y compris les taxes.

À

Nom de l'entrepreneur.

Expédiez à

Endroit où le travail sera effectué, si celui-ci diffère du lieu d'affaires de l'entrepreneur.

Date de livraison/d'achèvement

Date d'achèvement de la tâche.

pour le ministère de la Défense nationale

Signature du représentant du MDN auquel on a délégué le **pouvoir d'approbation** en ce qui a trait à la signature du formulaire DND 626 (niveau d'autorité basé sur la valeur de la tâche et le signataire autorisé équivalent mentionné dans le MAA 1.4). **Nota :** la personne qui signe cette attache de signature confirme que les travaux respectent la portée du contrat, que suffisamment de fonds sont prévus au contrat pour couvrir cette tâche et que le budget alloué à l'unité ou pour le projet le permet.

Services

Définissez brièvement le besoin (joignez l'ET) et établissez le coût de la tâche à l'aide de la soumission de l'entrepreneur selon le niveau de difficulté de celle-ci. Les modalités de paiement stipulées dans le contrat s'appliquent à la tâche. Si plusieurs d'entre elles sont prévues, énumérez ici celle/celles qui s'appliquera/ont à la soumission pour la tâche à accomplir (p.ex. acompte fondé sur les étapes franchies; taux quotidien ou taux horaire établi selon la catégorie de main-d'œuvre; frais de déplacement et de séjour; prix fixe ou prix plafond; etc.). Toutes les modalités du contrat s'appliquent à cette autorisation de tâche et ne peuvent être négligées ou modifiées quant à la tâche en question. Il n'est donc pas nécessaire de répéter ces modalités générales afférentes au contrat sur le formulaire DND 626.

Prix

Mentionnez le coût de la tâche en le répartissant selon les frais afférents à chaque item mentionné dans la rubrique **Services**.

TPS/TVH

Mentionnez le montant de la TPS/TVH, s'il y a lieu.

Total

Mentionnez le coût total de la tâche. L'entrepreneur ne peut dépasser ce montant sans l'approbation du MDN, formulaire DND 626 modifié à l'appui. Le coût de la modification ne peut pas être supérieur à 50 p. 100 du montant initial prévu dans l'autorisation de tâche (ou au pourcentage prévu dans le contrat pour les modifications). Le coût total spécifié dans le formulaire DND 626, y compris toutes les modifications, ne peut dépasser le plafond de financement mentionné dans le contrat.

Ne s'applique qu'aux contrats de TPSGC

Le présent paragraphe s'applique uniquement aux autorisations de tâche accordées par TPSGC. On inscrira dans le formulaire DND 626 un plafond précis qui ne pourra être approuvé que par le MDN et un pourcentage selon lequel le MDN pourra approuver des modifications au formulaire DND 626 original. Les tâches dont le coût dépasse ces plafonds doivent être soumises à l'autorité contractante de TPSGC pour examen et signature avant qu'on autorise l'entrepreneur à débiter les travaux.

Nota :

Les travaux ne peuvent commencer avant la date de signature de ce formulaire par le responsable du MDN, pour les tâches dont le coût est inférieur au plafond établi par le MDN, et par le MDN et TPSGC pour les tâches dont le coût dépasse le plafond établi par le MDN.



National Défense
Defence nationale

DESIGN CHANGE/DEVIATION MODIFICATION DU MODÈLE OU ÉCART AUTORISÉ

Design Change Modification du Model	<input type="checkbox"/>	Deviation Ecart	<input type="checkbox"/>
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CONTRACTOR'S SERIAL NO. N° D'ORDRE DE L'ENTREPRENEUR
CONTRACT DEMAND NO. N° DE LA DEMANDE DE CONTRAT
DSS CONTRACT SERIAL NO. N° D'ORDRE DU CONTRAT DU MAS
DSS FILE NO. N° DU DOSSIER DU MAS
DESIGN AUTHORITY SERIAL NO. N° D'ORDRE DU BUREAU TECHNIQUE RESPONSABLE

PART – PARTIE – I

1. ITEM AFFECTED – ARTICLE TOUCHÉ

2. MAIN EQUIPMENT(S) AFFECTED – MATÉRIEL TOUCHÉ

3. DESCRIPTION OF DEPARTURE FROM ORIGINAL TECHNICAL DATA
DESCRIPTION DES POINTS QUI DIFFÈRENT DES DONNÉES TECHNIQUES

4. REASON FOR REQUEST – MOTIF DE LA DEMANDE

5. WILL INTERCHANGEABILITY BE AFFECTED? L'INTERCHANGEABILITÉ EST-ELLE RÉDUITE?	Component Parts: – Organes : –	Yes Oui	<input type="checkbox"/>	No Non	<input type="checkbox"/>	Assemblies: Ensembles :	Yes Oui	<input type="checkbox"/>	No Non	<input type="checkbox"/>
6. WILL SPARE PARTS SCHEDULE BE AFFECTED? LE TABLEAU EN PIÈCES DE RECHANGE EST-IL MODIFIÉ?		Yes Oui	<input type="checkbox"/>	No Non	<input type="checkbox"/>	(If "YES" state details) (Le cas échéant, donner des détails)				

7. PRODUCTION DATA – RENSEIGNEMENTS SUR LA PRODUCTION

7.1 COST AND DELIVERY COÛT ET LIVRAISON

7.1.1 Estimated Effect of Delivery Effet prévu sur la livraison	_____
7.1.2 Estimated Added Tooling Cost \$ Coût supplémentaire prévu de l'usinage \$	_____
7.1.3 Estimated Surplus Material Value \$ Valeur prévue des matériaux supplémentaires \$	_____
7.1.4 Estimated Change in Contract Cost Including Sales Tax and 7.1.2 and 7.1.3 above. (Indicate + or -) \$ Variation prévue du coût stipulé dans le contrat (y compris la taxe de vente et les montants prévus en 7.1.2 et 7.1.3). (Indiquer + ou -) \$	_____

7.2 PRODUCTION CHANGE POINT INTRODUCTION DE LA MODIFICATION

7.2.1 Estimated Starting date and Serial No. Date d'introduction et N° de série prévue.	_____
7.2.2 Total Number of Units involved. Nombre total d'unités touchées.	_____

7.3 RECOMMENDATIONS FOR PRIOR BUILT UNITS IN SERVICE RECOMMANDATIONS QUANT AUX UNITÉS DÉJÀ EN SERVICE

7.3.1 Should Prior-Built Units be modified? Les unités déjà en service devraient-elles être modifiées?	Yes Oui	<input type="checkbox"/>	No Non	<input type="checkbox"/>	
7.3.2 Estimated Cost Per Unit – Coût prévu par unité					
Cost of Kit Coût du lot	\$	_____			
Cost of Rework Coût de réusinage	\$	_____			
7.3.3 Government held Spare Parts Pièces de rechange appartenant à l'État					
Use Utilisez	<input type="checkbox"/>	Rework Réusinage	<input type="checkbox"/>	Scrap Mise au rebut	<input type="checkbox"/>
Estimated Cost Each to Rework or Replace \$ Coût unitaire prévu du réusinage ou du remplacement \$					_____

8. ORIGINATOR – AUTEUR DE LA DEMANDE

DATE	SIGNATURE (if other than Prime Contractor – Autre que l'entrepreneur principal)	DATE	SIGNATURE (Prime Contractor – Entrepreneur principal)
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9. RECOMMENDATIONS OF QUALITY ASSURANCE REPRESENTATIVE – RECOMMANDATIONS DU REPRÉSENTANT DE L'ASSURANCE DE LA QUALITÉ

DATE	DESIGNATION – DÉSIGNATION	SIGNATURE
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Approved: ☐ Design Change ☐ Deviation ☐ Per Part 1 ☐ or See remarks ☐ Not approved ☐
Approuvé ; ☐ Modification du Model ☐ Écart ☐ Voir partie 1 ☐ ou Voir observations ☐ Rejetée ☐

DATE	DESIGNATION – DÉSIGNATION	SIGNATURE
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DATE	DESIGNATION – DÉSIGNATION	SIGNATURE
------	---------------------------	-----------

12. REFERENCES (Departmental file numbers etc.) – DOCUMENTS DE RÉFÉRENCE (numéros de dossier ministère etc.)

a. Design Change Modification du Model		Existing Stock Stock actuel	Complete Units Unités entières	Assemblies Ensembles	Component Parts Organes
		Use Utilisez	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When to take effect: Prise d'effet :		Rework Réusinage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Scrap Mise au rebut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Deviation Écart	<input type="checkbox"/>	TOTAL NUMBER OF UNITS INVOLVED NOMBRE D'UNITÉS TOUCHÉES	SERIAL NO. (S) N° (S) DE SÉRIE		

Yes ☐ No ☐

15. ACTION ON EQUIPMENT IN STOCK AND USE – MESURE À PRENDRE À L'ÉGARD DU MATÉRIEL EN STOCK ET EN SERVICE

16. ACTION ON SPARES IN STOCK – MESURE À PRENDRE À L'ÉGARD DES PIÈCES DE RECHANGE EN STOCK

17. DATE	SIGNATURE (for Department of National Defence pour le ministère de la Défense Nationale)	18. DATE	SIGNATURE (for Department of Supply and Services pour le ministère des Approvisionnements et Services)

[illegible]



Certificate of Release, Inspection and Acceptance - Certificat de libération, d'inspection et de réception (CF 1280)

1. Purchaser - Acheteur		2. Purchase order or reference file Bon de commande ou N° de dossier		3. Government contract number N° de dossier du gouvernement		4. No of pages N° de pages	
5. Contractor - Entrepreneur		6. Shipped from (consignor) Lieu d'expédition (expéditeur)		7. Shipped to (consignee) Lieu de destination (destinataire)		8. Shipment no. N° de l'envoi	
Contract item no. N° d'article du contrat (9)	NATO stock number N° nomenclature OTAN (10)	Item identification Identification de l'article (11)	Serial number or size N° de série ou taille (12)	Quantity Unit of measure Quantité Unité de mesure (13)	Package number N° de l'emballage (14)	Undelivered balance Quantité non livrée (15)	Quantity received Quantité reçue (16)
17. Contractor certification Attestation de l'entrepreneur		18. Government quality assurance Assurance officielle de la qualité		19. Acceptance Acceptation			
I certify that the item(s) listed above has/have been inspected and tested and conform to all specifications and requirements detailed in the contract or purchase order. J'atteste que l'/les article(s) inscrits ci-haut a/ont été inspecté(s) et mis à l'essai et qu'il(s) est/sont en tous points conformes aux spécifications et exigences du contrat ou du bon de commande.		I certify that Government Quality Assurance has been performed. Je certifie que l'assurance officielle de la qualité a été effectuée.		Quantity/ies shown in block (16) was/were received in apparent good condition. La(es) quantité(s) indiquée(s) à la case (16) a/ont été reçues, et l'/les article(s) semble/ent être en bon état.			
Print - Imprimer		Print - Imprimer		Print - Imprimer			
Signature (Contractor QC) Signer (CQ de l'entrepreneur)		Signature (QAR) Signer (RAQ)		Signature (Receiving Authority at destination) Signer (Autorité de réception à la destination)		Date	

Certificate of Release, Inspection and Acceptance CF 1280

Certificat de libération, d'inspection et de réception CF 1280

USE

The Certificate of Release, Inspection and Acceptance CF 1280 constitutes:

- Certification by the supplier that all items listed therein have been inspected and tested and conform to the specifications and requirements detailed in the contract or purchase order.
- Certification by the Quality Assurance Representative when applicable; that Government Quality Assurance has been performed during the contract or purchase order.
- Receipt for goods at destination and once signed by the receiving authority; the payment process can be initiated.

PREPARATION AND DISTRIBUTION

It is the supplier's responsibility to prepare and distribute the CF 1280. However, whenever STANAG 4107 applies, the QAR must forward one copy to the delegator.

- Note 1:** All entries other than signatures must be either typewritten or printed.
- 2:** When using more than one CF 1280 per shipment per contract, complete all blocks but only sign Block 17 and have Block 18 signed (when applicable) on the last form.

- Block 1:** Name of the department, country or organization actually ordering the material. In the case of PWGSC contracts, they are the purchaser referenced in the contract.
- Block 2:** PWGSC file or supplier purchase order number, as appropriate. For contracts from other North Atlantic Treaty Organisation (NATO) nations, enter date of contract.
- Block 3:** Contract serial number or, if a purchase order, enter the prime contract number.
- Block 4:** Consecutively number the forms used to cover each shipment and enter the total number of pages, (e.g. page 1 of 1, 2 of 6, etc).
- Block 5:** Prime contractor's or sub-contractor's name and complete address.
- Block 6:** Consignor's name; also complete shipping address if different than Block 5.
- Block 7:** Consignee's name and address as contained in the shipping instructions.
- Block 8:** Number for each shipment made under the stated contract commencing at 001.
Note: For more than one shipment under the same contract; the first shipment would be 001 and the final shipment would have the letter F at the end (e.g. 002F).
- Block 9:** Line item number as shown in the contract or purchase order.
- Block 10:** NATO or national stock number as indicated in the contract.
- Block 11:** Manufacturer's part, model, type, drawing or catalogue number or short description of the item. The brief description is mandatory for clothing or footwear contracts.
- Block 12:** Item serial, size, lot/batch numbers as applicable.
Note: Size numbers must be included to identify clothing or footwear. If not applicable enter [N/A].
- Block 13:** Quantity being shipped using the unit of measure as indicated in the contract.
- Block 14:** Identify package number in which the line item can be located.
- Block 15:** Balance of items, if any, to be shipped at a later date as per address in Block 7. If not applicable enter [N/A].
- Block 16:** Leave blank; for use by the receiving authority.
- Block 17:** Authorized supplier quality assurance representative.
See Note 2 under "preparation and distribution".
- Block 18:** Representative responsible for performing Government Quality Assurance (when applicable).
See Note 2 under "preparation and distribution".
- Block 19:** Leave blank; for use by the receiving authority.

OBJET

Le Certificat de libération, d'inspection et de réception CF 1280 constitue:

- Certificat de libération du fournisseur pour attester que les articles énumérés ont tous été soumis à une inspection et à des essais et sont jugés conformes aux spécifications et aux exigences du contrat ou de la commande.
- Certification par le Représentant de l'Assurance de la Qualité lorsque prescrit; que l'assurance officielle de la qualité a été effectuée pour le contrat ou pour la commande.
- Certificat de réception à la destination par l'autorité de réception; et une fois signé, le processus de paiement peut être lancé.

PRÉPARATION ET DISTRIBUTION

Il revient au fournisseur de remplir et de distribuer le formulaire CF 1280. Toutefois, si les dispositions du STANAG 4107 s'appliquent, le RAQ doit envoyer un exemplaire au délégant.

- Nota 1 :** Toutes les inscriptions autres que les signatures doivent être dactylographiées ou écrites en lettres moulées.
- 2 :** Si plusieurs formulaires CF 1280 sont utilisés pour le même envoi par contrat, remplir tout les cases mais seulement signé case 17 et faire signé (au besoin) case 18 sur le dernier formulaire.

- Case 1 :** Nom du ministère, du pays ou de l'organisme qui a commandé le matériel. S'il s'agit d'un contrat de TPSGC, indiquer le nom du client qui apparaît sur le contrat.
- Case 2 :** Numéro de dossier de TPSGC ou de la commande du fournisseur, selon le cas. Pour contrats envoyé à un autre pays membre de l'OTAN, indiquer la date du contrat.
- Case 3 :** Numéro de série du contrat ou, s'il s'agit d'une commande, écrire le numéro du contrat principal.
- Case 4 :** Numéroté dans l'ordre de formulaires utilisés et indiquer le nombre total de pages pour chaque envoi (1 de 1 ou 2 de 6, par exemple).
- Case 5 :** Nom et adresse de l'entrepreneur principal ou du sous-traitant.
- Case 6 :** Nom de l'expéditeur; indiquer également l'adresse d'expédition si elle diffère de l'adresse donnée à la case 5.
- Case 7 :** Nom et adresse du destinataire qui figure dans les instructions d'expédition.
- Case 8 :** Numéroté l'ordre d'envoi effectué en vertu du contrat, à partir de 001.
Note : Si un contrat prévoit plusieurs envois, les numéroter de la façon suivante : premier envoi 001 et le dernier envoi doit contenir la lettre <F> à la fin numéro (e.g. 002F).
- Case 9 :** Numéro de l'article qui figure dans le contrat ou dans la commande.
- Case 10 :** Numéro de nomenclature OTAN ou numéro de nomenclature du pays qui figure dans le contrat.
- Case 11 :** Numéro de pièce, de modèle, de type, de dessin ou de catalogue du fabricant ou brève description de l'article. Cette brève description est obligatoire dans le cas des vêtements et des chaussures.
- Case 12 :** Numéro de série, de taille ou de lot de l'article.
Note : Les numéros de taille doivent être inscrits si le contrat est pour des vêtements ou des chaussures. Si cette mention ne s'applique, inscrire [néant].
- Case 13 :** Quantité expédiée avec l'unité de mesure qui s'applique dans le contrat.
- Case 14 :** Numéro de l'emballage où se trouve l'article.
- Case 15 :** Articles à livrer à une date ultérieure, à la destination prévue à la case 7. Si tous les articles ont été livrés à cette destination, inscrire (aucun).
- Case 16 :** Laisser en blanc; cette case est réservée pour l'autorité de réception.
- Case 17 :** Signature d'un représentant autorisé du service de la qualité du fournisseur. Si plusieurs pages sont utilisées, voir Nota 2 dans les « préparation et distribution »
- Case 18 :** Signature du RAQ responsable de l'assurance officiel de la qualité, s'il y a lieu. Si plusieurs pages sont utilisées, voir Nota 2 dans les « préparation et distribution »
- Case 19 :** Laisser en blanc; cette case est réservée à l'autorité de réception.



DEPARTMENT OF NATIONAL DEFENCE MINIMUM REQUIREMENTS FOR MANUFACTURER'S STANDARD PACK

(BILINGUAL)

(Supersedes D-LM-008-036/SF-000 dated 1983-01-24 and Change 2 dated 1990-06-11)

EXIGENCES DU MDN EN MATIÈRE D'EMBALLAGE COMMERCIAL DU FABRICANT

(BILINGUE)

(Remplace la D-LM-008-036/SF-000 de 1983-01-24 et le modificatif 2 de 1990-06-11)

Issued on Authority of the Chief of the Defence Staff
Publiée avec l'autorisation du Chef d'état-major de la Défense

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2013-12-01

Canada



NOTICE

This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçues originellement doivent continuer de s'appliquer.

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Insérer les pages le plus récemment modifiées et se défaire de celles qu'elles remplacent conformément aux instructions pertinentes.

NOTA

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Les dates de publication des pages originales et modifiées sont :

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i/ii	0
1 to/à 7/8.....	0

Contact Officer: DSCO 5-4-3

Personne responsable : DOCA 5-4-3

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SCOPE**PURPOSE**

1. This specification states the circumstances under which the manufacturer's or supplier's standard pack can be used to fulfill the Canadian Forces (CF) requirement for cleaning, drying, preservation, packaging, packing and marking.
2. Where individual instructions for specific items have been included in the contract, e.g. type of preservation material to be applied, those instructions shall take precedence over paragraph 9.
3. Where the commodity specification for an item includes packaging, the commodity specification shall take precedence. Where the commodity specification contains more than one level of packaging and the required level is not specified in the document, packaging shall be to the lowest level of protection established in the commodity specification (Level A being the highest – Level C or Commercial being the lowest).

GENERAL REQUIREMENTS

4. Subject to the limitations set forth below, commercial cleaning, drying, preservation, packaging and marking are acceptable. This specification neither requires nor precludes the use of CF methods and/or materials.
5. Items shall be afforded adequate protection against deterioration and damage during handling and shipment. Packaging and marking shall be suitable for distribution to retail outlets.
6. Unless otherwise specified, bulk preservation, packaging, packing and marking such as those used in interplant and intraplant shipments, and for shipment to jobbers for repackaging and to part distribution outlets for re-preservation and packing, are not acceptable. Examples include tote-boxes, open baskets, and boxes without lids or other such handling aids.

PORTÉE**OBJET**

1. La présente ordonnance indique dans quels cas l'emballage commercial des fabricants ou des fournisseurs peut être utilisé afin de satisfaire aux exigences des Forces canadiennes (FC) en matière de nettoyage, de séchage, de préservation, d'emballage, d'empaquetage et de marquage.
2. Dans le cas où des dispositions du contrat stipulent l'emploi d'articles particuliers (p. ex. le genre de matériel à employer pour assurer la préservation), ces dispositions auront préséance sur le paragraphe 9.
3. Si les stipulations du contrat portant sur un article prévoient l'emballage, ces stipulations prévaudront. Lorsque les spécifications du produit prévoient plus d'un niveau d'emballage et que le niveau requis n'est pas précisé dans le document, l'emballage sera au plus bas niveau établi dans les spécifications du produit (le niveau A étant le plus haut, et le niveau C, ou commercial, étant le plus bas).

DIRECTIVES GÉNÉRALES

4. Sous réserve des restrictions ci-dessous, les méthodes commerciales de nettoyage, de séchage, de préservation, d'emballage et d'empaquetage sont acceptables. La présente ordonnance n'exige ni n'exclut l'emploi des méthodes ou du matériel des FC.
5. Les articles doivent être bien protégés contre tout dommage ou détérioration lors de la manutention et de l'expédition. L'emballage et le marquage doivent convenir à la distribution aux magasins de détail.
6. Sauf avis contraire, la préservation, l'emballage, l'empaquetage ainsi que le marquage en bloc sont inacceptables pour la manutention interne ou la manutention d'un établissement à un autre, de même que pour l'expédition à des entrepreneurs en remballage et à des magasins de distribution pour un nouveau traitement de préservation et l'emballage. Par exemple, les emballages peuvent être des boîtes de transport, des paniers ouverts, des boîtes sans couvercle et d'autres articles de manutention.

7. Cleaning, drying, preservation, packaging, packing and marking furnished by the supplier shall meet or exceed the following minimum requirements.

CLEANING

8. Items shall be free from dirt or contaminants which would contribute to deterioration of the item or which would require cleaning by the customer prior to use. Coatings of preservatives applied to the item for protection are not considered contaminants.

PRESERVATION

9. Items susceptible to corrosion or deterioration shall be protected by the use of preservative coatings, volatile corrosion inhibitors or desiccated packs.

CUSHIONING

10. Items requiring surface protection from physical and mechanical damage, or items that are fragile in nature, shall be protected by wrapping, cushioning, or other means to distribute shock and vibration during handling and shipment.

INTERIOR PACKS

11. Interior packs are classified as unit packs and intermediate packs. A unit pack is the first stage at which the item or quantity of items is enclosed in a container (bag, envelope, box, etc). A unit pack shall be so designed and constructed that it will contain the contents with no damage to them, and with minimal damage to the unit pack during shipment and storage in the shipping container, and will allow subsequent handling. Unit packs are a mandatory requirement of this specification and are limited to the parameters specified at paragraph 12. In extraordinary circumstances due to weight or size, e.g. sheet metal, bar stock, etc., exception to the limits imposed by paragraph 12. may be authorized by a qualified Department of National Defence (DND) packaging specialist.

7. Les opérations de nettoyage, de séchage, de préservation, d'emballage, d'empaquetage et de marquage effectuées par le fournisseur doivent au moins répondre aux exigences suivantes.

NETTOYAGE

8. Les articles ne doivent être ni sales ni contaminés, ce qui contribuerait à les détériorer ou obligerait le client à les nettoyer avant de les utiliser. Les revêtements dont on couvre les marchandises constituent des agents de préservation et non des agents de contamination.

PRÉSERVATION

9. Les articles qui risquent de se corroder ou de se détériorer doivent être protégés à l'aide de revêtements de préservation, d'inhibiteurs de corrosion volatils ou d'emballages dessiccatifs.

BOURRAGE

10. Les articles fragiles ou dont la surface doit être protégée contre les avaries physiques ou mécaniques doivent être préservés grâce à un emballage, à un bourrage, ou à tout autre moyen servant à amortir les chocs et les vibrations pendant la manutention et le transport.

EMBALLAGES INTÉRIEURS

11. Les emballages intérieurs sont classés soit comme emballages individuels soit comme emballages intermédiaires. L'emballage individuel est la première forme sous laquelle un article ou un groupe d'articles est placé dans un contenant (sac, enveloppe, boîte, etc.). Un emballage individuel doit être conçu et fabriqué de manière à envelopper le contenu sans l'endommager et en subissant lui-même un minimum de dommages pendant l'expédition et l'entreposage dans le contenant d'expédition, ce qui en permettra la manipulation ultérieure. L'emploi d'emballages individuels est obligatoire en vertu de la présente ordonnance, et assujetti aux règles spécifiées au paragraphe 12. Dans certains cas inhabituels, étant donné le poids ou les dimensions de l'objet (p. ex. tôle, barre, etc.), un technicien du ministère de la Défense nationale (MDN), spécialiste en emballage, pourra autoriser des exceptions aux restrictions imposées au paragraphe 12.

12. Unit Packs. Unless otherwise specified, the unit pack quantity shall not exceed 100 pieces and shall not weigh more than 25 lb (11.3 kg). Single items weighing more than 10 lb (4.5 kg) shall be individually packed.

12. Emballages individuels. Sauf avis contraire, un emballage individuel ne doit pas contenir plus de 100 articles et ne doit pas peser plus de 25 lb (11.3 kg). Les articles qui pèsent à eux seuls plus de 10 lb (4.5 kg) doivent être emballés individuellement.

13. Intermediate Packs. An intermediate pack is simply a number of unit packs placed in a larger container for convenience of handling, counting, and marking to the requirements of paragraph 16. Unless otherwise specified in the contract, intermediate packs are not mandatory, neither are they forbidden. The supplier may employ them or not, as is his/her discretion. Unit packs or intermediate packs shall be packed into exterior shipping containers that meet common carrier acceptance and provide safe delivery to destination (refer to paragraph 14.). Unit or intermediate packs that conform to these requirements need no supplemental protection.

13. Emballages intermédiaires. Il s'agit tout simplement d'un certain nombre d'emballages individuels qui sont placés dans un plus grand contenant en vue de faciliter la manutention, le comptage et le marquage conformément au paragraphe 16. Sauf mention expresse au contrat, l'emploi d'emballages intermédiaires n'est ni obligatoire, ni interdit. En fait, il est laissé à la discrétion du fournisseur. Les emballages individuels ou intermédiaires doivent être déposés dans des contenants d'expédition extérieurs que le transporteur juge d'ordinaire acceptables pour assurer une livraison sûre au destinataire (se reporter au paragraphe 14.). Les emballages qui satisferont à ces exigences ne nécessitent aucune protection supplémentaire.

SHIPPING CONTAINERS

14. These are containers that are acceptable to the common carrier for safe delivery to consignee at the lowest applicable rate, e.g. corrugated fibreboard, wood, plywood, hardboard, boxes, barrels, crates, shipping drums, some types of baskets and, in some instances, loose items. All wood packaging materials must meet all requirements for the importing or exporting of wood packaging materials as specified by the Canadian Food Inspection Agency in accordance with the International Plant Protection Conventions wood packaging standard ISPM-15. It is required that manufacturers notify the Department if any untreated wood will be used as a packaging material for any and all item(s).

15. The use of containers that have been used previously for the shipment or storage of other items is permissible, if approved by the appropriate packaging specialist. The exception being that previously used corrugated fibreboard boxes are not an acceptable shipping container and are not to be used under any circumstances.

CONTENANTS D'EXPÉDITION

14. Ce sont les contenants que le transporteur peut d'ordinaire juger acceptable pour assurer une livraison sûre au destinataire au taux le plus bas. Il peut s'agir par exemple de carton-fibre ondulé, de bois, de contre-plaqué, de carton dur, de boîtes, de barils, de caisses, de certains genres de paniers, et, dans certains cas, d'articles en vrac. Tous les matériaux d'emballage en bois doivent répondre à toutes les exigences en matière d'importation ou d'exportation des matériaux d'emballage en bois, comme le spécifie l'Agence canadienne d'inspection des aliments et conformément à la norme ISPM-15 sur le bois d'emballage de la Convention internationale pour la protection des végétaux. Les fabricants doivent informer le Ministère de toute utilisation de bois non traité pour l'emballage de quelque article que ce soit.

15. Il est permis d'employer des contenants qui ont déjà servi au transport ou à l'entreposage d'autres articles si le spécialiste en emballage l'autorise. Il est toutefois strictement interdit d'employer des boîtes de carton-fibre ondulé qui ont déjà servi et qui ne sont pas considérées comme des contenants d'expédition acceptables.

MARKING PROCEDURES

16. Besides markings that are required to effect delivery of material (consignee, consignor), certain other markings are required on shipping containers and, in some instances, on interior containers. When the contents of a shipping container comprise only one item of material (regardless of quantity), the interior containers need not be marked. When, however, the shipping containers hold more than one item of material (more than one NATO stock number), the interior containers must be marked. If intermediate packs are employed within a shipping container, they must be marked, but the unit packs need not. If intermediate packs are not employed, each unit pack must be marked. All markings shall be legible, durable, and identify the contents of the package.

17. **Interior Containers.** The required markings for interior containers are as follows:

- a. NATO stock number – as shown on the contract.
- b. Description – noun or noun phrase.
- c. Quantity – as determined by the supplier.

18. **Shipping Containers.** Each shipping container must bear the following markings on one face of the container (preferably the end or smaller face):

- a. NATO stock number – as shown on the contract.
- b. Description – noun or noun phrase.
- c. Quantity – as determined by the supplier.
- d. Gross weight – packed weight of the container.
- e. Contract serial number – as shown on the contract.

MÉTHODES DE MARQUAGE

16. En plus des inscriptions nécessaires pour la livraison du matériel (noms du destinataire et de l'expéditeur), certaines autres inscriptions doivent être apposées sur les contenants d'expédition et, dans certains cas, sur les contenants intérieurs. Lorsqu'un contenant ne renferme que les articles de même nature, peu importe la quantité, il n'est pas nécessaire de marquer les contenants intérieurs. Toutefois, il faut le faire lorsque le contenant d'expédition compte plus d'une sorte d'articles (articles portant des numéros de nomenclature OTAN différents). En outre, il faut marquer les emballages intermédiaires groupés dans un contenant d'expédition, mais pas les emballages individuels qu'ils contiennent. Toutefois, si l'on n'emploie pas d'emballage intermédiaire, il faut identifier chacun des emballages individuels. Toutes les inscriptions marquées doivent être lisibles et durables et identifier le contenu de l'emballage.

17. **Contenants intérieurs.** Les inscriptions apposées sur les contenants intérieurs doivent comporter les renseignements suivants :

- a. Numéro de nomenclature OTAN – indiqué sur le contrat.
- b. Description – substantif ou locution substantive.
- c. Quantité – établie par le fournisseur.

18. **Contenants d'expédition.** Chaque contenant d'expédition doit porter les renseignements suivants sur l'une de ses faces (de préférence la plus petite ou celle du bout) :

- a. Numéro de nomenclature OTAN – indiqué sur le contrat.
- b. Description – substantif ou locution substantive.
- c. Quantité – établie par le fournisseur.
- d. Poids brut – poids du contenant après emballage.
- e. Numéro de série du contrat – indiqué sur le contrat.

19. One contrasting face of the container (preferably on the side or larger face) must bear the following shipping instructions:

- a. Consignee – as shown on the contract.
- b. Consignor – suppliers name or symbol.
- c. Container number – relation of the container within the shipment (e.g. Case 1 of 1).

NOTE

The last shipment container shall have affixed to its face an envelope containing the contract supply voucher, release note, packing list, etc. This envelope, which shall be water resistant, shall be prominently marked "Packing Slip Enclosed" and securely affixed to the outside wall of the container.

APPLICATION OF MARKINGS

20. The most satisfactory method of applying markings to containers is by stencil and marking ink. Labels may be used, but the characters must be sufficiently large to facilitate reading from a reasonable distance. If stencilling is impracticable, because of container shape or because of the material from which the container is manufactured, tags may be used (refer to paragraph 21.). Marking inks shall be fade resistant.

UNUSUAL MARKING CIRCUMSTANCES

21. The above marking instructions mainly concern boxes and it is realized, that in some instances, the shipping container may be a bag, sack, bale, pail, drum, barrel, or loose item. In these circumstances, the markings quoted in paragraph 16. are still required but it will be permissible to apply the markings by means of tags firmly attached to the bags or loose items. The NATO stock number description, quantity, contract serial number shall be shown on one tag or on one side of a tag and the consignee, consignor, container number, number of containers and packing slip enclosed shall be shown on the opposite side of the same tag, or on another tag.

19. Il faut inscrire sur la face opposée de chaque contenant (la face du côté ou la face la plus grande) les directives d'expédition suivantes :

- a. Nom du destinataire – indiqué sur le contrat.
- b. Nom de l'expéditeur – nom ou logotype du fournisseur.
- c. Numéro du conteneur – par rapport à l'ensemble de l'envoi; p. ex. Conteneur 1 de 1.

NOTA

Le dernier conteneur d'expédition doit porter sur l'une de ses faces une enveloppe contenant le bordereau d'approvisionnement annexé au contrat, l'avis de remise, le bordereau d'expédition, etc. Il faut inscrire clairement sur cette enveloppe, qui doit être imperméable, « Bordereau d'expédition inclus » et la fixer solidement au panneau extérieur du conteneur.

MARQUAGE

20. La meilleure méthode de marquage consiste à utiliser un pochoir et de l'encre à marquer. On peut également se servir d'étiquettes, mais les caractères employés doivent être assez gros pour se lire aisément à une distance raisonnable. On peut avoir recours à cette méthode lorsqu'on ne peut employer la première en raison de la forme du contenant ou de la matière dont il est fait (se reporter au paragraphe 21.). Les encres à marquer doivent être indélébiles.

MARQUAGE – CAS PARTICULIERS

21. Les directives de marquage ci-dessus s'appliquent surtout en ce qui a trait aux boîtes, mais il peut arriver que le contenant d'expédition soit un sac, une poche, un ballot, un seau, une caisse, un baril ou un panier, ou que l'article ne soit pas emballé. Dans de tels cas, le marquage décrit au paragraphe 16. demeure nécessaire, mais il est permis de marquer les contenants ou les articles séparés à l'aide d'étiquettes solidement fixées. Il faut inscrire le numéro de nomenclature OTAN, la description, la quantité, le numéro de série du contrat sur une étiquette ou sur l'un de ses côtés, et le nom du destinataire et de l'expéditeur, le numéro du contenant et le nombre total de contenants ainsi que la mention « Bordereau d'expédition inclus » sur une autre étiquette ou au verso de la même étiquette.

DANGEROUS MATERIALS

22. Dangerous Goods/Hazardous Materials – materiel which is classed as dangerous/hazardous shall have the shipping container marked in accordance with the Transportation of Dangerous Goods Act; and the immediate product container shall be marked in accordance with the Hazardous Products Act.

23. Bilingual Materiel Safety Data Sheets (3 copies) indicating the NATO Stock Number as specified on the procurement document shall be provided, with one copy being enclosed with the shipment, one copy to be mailed to:

National Defence Headquarters
MGen George R Pearkes Building
101 Colonel By Drive
Ottawa ON K1A 0K2
Attention: DSCO 5-4-2

One additional copy shall be sent by email to the following address in word processing format (i.e. MS Word or WordPerfect): MSDS-FS@FORCES.GC.CA

24. USA regulations covering these dangerous materials can be found in Code of Federal Regulations, title 49, Subtitle B, parts 100 to 199, which cover transportation of hazardous materials by rail, road, aircraft and vessel. Carriage by military aircraft is regulated by USA DOD AFM 71-4.

QUALITY ASSURANCE PROVISIONS

25. Quality assurance provisions shall be as specified in the contract.

MATIÈRES DANGEREUSES

22. Dans le cas des matières classées dangereuses, il faudra se conformer aux dispositions de la Loi sur le transport des marchandises dangereuses pour le marquage des contenants d'expédition, et aux dispositions de la Loi sur les produits dangereux pour le marquage de l'emballage intérieur.

23. Il faudra fournir des fiches techniques santé-sécurité bilingues (en 3 copies) portant le numéro de nomenclature OTAN, tel qu'il est indiqué sur le document d'approvisionnement; une copie devra être insérée dans le contenant d'expédition et l'autre postée au :

Quartier général de la Défense nationale
Édifice mgén George R. Pearkes,
101, promenade Colonel-By
Ottawa ON K1A 0K2
À l'attention de : DOCA 5-4-2

Envoyer également une copie par courriel à l'adresse suivante, dans un format de traitement de texte (c.-à-d. exemple, MS Word ou WordPerfect) : MSDS-FS@FORCES.GC.CA

24. Les règlements américains se rapportant aux matières dangereuses sont énoncés dans le « Code of Federal Regulations » titre 49, sous-chapitre B, parties 100 à 199. Ce document traite du transport des matières dangereuses par chemin de fer, par route, par air et par mer. Les règlements régissant le transport par avion militaire sont contenus dans la publication américaine DOD AFM 71-4.

ASSURANCE DE LA QUALITÉ

25. Toutes les dispositions en matière de contrôle de la qualité doivent figurer au contrat.

PREPARATION FOR DELIVERY

26. Prepare for delivery as applicable. Materiel handling aids such as pallets, crates, etc., shall be utilized where applicable to facilitate off loading of materiel from transport vehicles at destination.

NOTES

1. **Deviation from Specification.** If the contractor wishes to suggest other proposals or otherwise depart from the current issue of this specification, he shall forward his proposals immediately, to the Department for approval.
2. **Inquiries.** Any question relating to this specification are to be referred to the Department's authorized representative and/or DSCO 5-4-3. Technical assistance may be obtained by contacting the Packaging Officer at the Supply Depot indicated on the procurement document.
3. **Specification.** Copies of this specification may be obtained from the Department of National Defence, Attention DSCO 5-4-3. Specifications may also be located online at the address below.

National Defence Publications

Search: <http://publications.mil.ca/pod/pubs/pubSearch.jsp?LangType=0>

LIVRAISON

26. La préparation en vue de la livraison devra être conforme aux directives applicables. Il faudra utiliser au besoin des dispositifs de manutention, par exemple, des palettes, des caisses à claire-voie, etc., pour faciliter le déchargement des marchandises des véhicules de transport une fois rendus à destination.

NOTA

1. **Dérogations à l'ordonnance.** Si l'entrepreneur désire faire d'autres suggestions ou déroger à la présente ordonnance, il doit envoyer immédiatement ses suggestions au Ministère pour approbation.
2. **Questions.** Toute question portant sur la présente ordonnance doit être adressée à un représentant autorisé du Ministère ou au DOCA 5-4-3. On peut obtenir une aide technique en communiquant avec l'agent d'emballage du dépôt d'approvisionnement dont le nom figure sur le document d'approvisionnement.
3. **Spécification.** On peut se procurer des exemplaires de la présente spécification en s'adressant au ministère de la Défense Nationale, à l'attention du DOCA 5-4-3. On peut également trouver les spécifications en ligne, à l'adresse ci-dessous.

Recherche de publication de la Défense nationale :

<http://publications.mil.ca/pod/pubs/pubSearch.jsp?LangType=0>



**SPECIFICATION
FOR
MARKING
FOR
STORAGE AND SHIPMENT**

**SPÉCIFICATION
POUR
MARQUAGE DES ARTICLES
À ENTREPOSER OU À EXPÉDIER**

1. SCOPE

1.1 Scope. This specification covers the requirements of the Canadian Forces for the uniform marking for storage and shipment of all military supplies and equipment except petroleum products, explosives, and items of subsistence. It supplements but does not supersede any markings contained in commodity specifications or required by regulations governing carriers. Exterior colour, code or other markings not contained herein shall be as specified in packaging specifications or contract.

1.2 Marking. Marking in accordance with U.S. Military Standard MIL-STD-129 for items marked in the United States, or in accordance with U.K. Ministry of Defence Specification DEF 1234 for items marked in the United Kingdom, is acceptable in lieu of the requirements of this specification provided that the full NATO stock number, including country of origin of the stock number is used. However, marking in accordance with this specification is acceptable, irrespective of country of origin.

1. PORTÉE

1.1 Portée. Cette norme présente les exigences des Forces canadiennes en ce qui a trait au marquage des fournitures et du matériel militaires qui doivent être entreposés ou expédiés, exception faite des produits pétroliers, des explosifs et des vivres. Les marques prescrites ici s'ajoutent à celles que prévoient les spécifications des produits ou les règlements de transport; elles ne s'y substituent pas. Les couleurs extérieures, les codes ou les autres marques non décrits ici seront conformes aux normes d'emballage ou aux dispositions du contrat.

1.2 Marquage. Les marques faites aux États-Unis en conformité avec la norme militaire américaine MIL-STD-129 et les marques faites au Royaume-Uni en conformité avec la norme DEF 1234 du ministère de la Défense du Royaume-Uni pourront être acceptées pourvu que le numéro de nomenclature OTAN soit indiqué au long, pays d'origine compris. Les marques prévues ici sont cependant partout acceptables, quel que soit le pays d'origine des articles.

OPI/BPR: DSRO/DA(RE)

**Issued on Authority of the Chief of the Defence Staff
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Canada

1.2.1 Unauthorized markings. No markings, other than those specified or permitted in this specification, shall be placed on any container unless authorization is obtained from the Quality Assurance/Inspection Authority designated on the contract. Unauthorized markings may be obliterated using paint conforming to Canadian Government Specifications Board (CGSB) Specification 1.47-M89.

1.2.2 Standard symbology for bar coding. Appendix 3 outlines the requirements for bar coding.

1.2.3 Dangerous goods. Interior packages and shipping containers enclosing materials defined as dangerous goods in accordance with the Transportation of Dangerous Goods Act, the Transportation of Dangerous Goods Regulations, Part 1 and/or the Hazardous Products Act, shall be marked in accordance with these acts and regulations.

1.2.4 Classified material. Marking shall be as specified on the contract when classified material is being shipped.

1.3 Abbreviations. Abbreviations authorized for use in this specification are listed in Appendix 1.

1.4 Materials

1.4.1 Supplementary specifications. Any material or method used in connection with this specification shall conform to the requirements of the relevant specification for the material or method as listed in applicable documents. Specifications or information about these materials may be obtained from the Quality Assurance/Inspection Authority.

1.4.2 Non-specification materials. Any material may be used when permitted by the Quality Assurance/Inspection Authority designated on the contract.

2. APPLICABLE DOCUMENTS

2.1 Applicable documents. The following documents form part of this specification to the extent specified herein.

1.2.1 Marques non autorisées. À moins d'autorisation expresse des instances d'inspection désignées au contrat, nulle autre marque que celles que prévoit ou autorise cette norme ne doit figurer sur un contenant. Les marques non autorisées peuvent être masquées avec une peinture conforme à la norme 1.47-M89 de l'Office des normes générales du Canada (ONGC).

1.2.2 Codes à bâtonnets standard. Les exigences relatives aux codes à bâtonnets sont présentées à l'appendice 3.

1.2.3 Marchandises dangereuses. Les contenants intérieurs et les contenants d'expédition qui renferment des marchandises dangereuses, au sens qu'en donnent la Loi sur le transport des marchandises dangereuses, le Règlement sur le transport des marchandises dangereuses et la Loi sur les produits dangereux, doivent être marqués en conformité avec les dispositions de ces textes législatifs.

1.2.4 Matériel classifié. Les contenants d'expédition du matériel classifié doivent être marqués conformément aux dispositions des contrats.

1.3 Abréviations. Les abréviations autorisées en vertu de cette norme sont présentées à l'appendice 1.

1.4 Matériaux

1.4.1 Autres normes. Les matériaux ou les méthodes utilisés dans l'application des exigences de cette norme doivent être conformes aux normes données dans les documents utiles. On pourra obtenir ces normes ainsi que des renseignements sur les matériaux utilisés auprès des instances d'inspection.

1.4.2 Matériaux ne faisant pas l'objet de normes. Les matériaux peuvent tous être utilisés, pourvu qu'ils aient été autorisés par les instances d'inspection désignées au contrat.

2. DOCUMENTS PERTINENTS

2.1 Documents pertinents. Les documents suivants font partie de la présente description dans la mesure indiquée dans les présentes.



NOTICE

This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas des marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçues originalement doivent continuer de s'appliquer.

SPECIFICATIONS AND STANDARDS

D-LM-008-001/SF-001 Methods of Packaging

MIL-STD-129 Marking for Shipment and Storage

FED-STD-123 Marking for Domestic Shipment (Civil Agencies)

2.2 Government documents

Transportation of Dangerous Goods Act and Transport of Dangerous Goods Regulations, Part 1

Hazardous Products Act

A-A-208 Ink, Marking, Stencil Opaque

A-A-1588 Paint, Stencil

MMM-A-179 Adhesive, Label, Paper

TT-L-26 Lacquer, Clear, Interior and Exterior

49CFR Code of Federal Regulations (Transportation)

Copies of this specification and the above documents may be obtained from the Department of National Defence, Ottawa, Ontario, K1A 0K2, Attention: DPGS 3-6.

2.3 Other publications. The following documents form part of this specification to the extent specified herein.

**Canadian Standards Association,
178 Rexdale Boulevard,
Rexdale, Ontario, M9W 1R3**

CAN/CGSB-1.47-M89 Paint, Obliterating

1-GP-71 Methods of Testing Paints and Pigments

SPÉCIFICATIONS ET NORMES

D-LM-008-001/SF-001 Méthodes d'emballage

MIL-STD-129 Marquage des articles à expédier ou à entreposer

FED-STD-123 Marquage à des fins de transport intérieur (organismes civils)

2.2 Documents du gouvernement

Loi sur le transport des marchandises dangereuses et règlement sur le transport des marchandises dangereuses

Loi sur les produits dangereux

A-A-208 Encre opaque de marquage au pochoir

A-A-1588 Peinture à pochoir

MMM-A-179 Étiquettes de papier adhésives

TT-L-26 Laque, clair, intérieur et extérieur

49CFR Code de la législation fédérale (transports)

On peut obtenir des copies de la présente description ainsi que les documents cités ci-dessus auprès du ministère de la Défense nationale, Ottawa (Ontario) K1A 0K2, à l'attention de: DSEG 3-6.

2.3 Autres publications. Les documents suivants font partie de la présente description dans la mesure indiquée dans les présentes.

**Canadian Standards Association,
178 Rexdale Boulevard,
Rexdale, Ontario, M9W 1R3**

CAN/ONGC-1.47-M89 Peinture de masquage

1-GP-71 Méthodes d'essai des peintures et des pigments

6.15M	Tags Shipping/Identification
43-GP-3	Tape, Adhesive, Pressure Sensitive, Water Resistant

6.15M	Étiquettes volantes d'expédition et d'identification
43-GP-3	Ruban autocollant imperméable

3. REQUIREMENTS

3.1 Methods of marking

3.2 Bar code. Markings in the standard bar code symbology, as described at Appendix 3, shall be applied to unit, intermediate and shipping containers, where required by container marking requirements of this specification.

3.3 Legibility

3.3.1 All markings shall be as large as possible, consistent with the space available, but lettering shall not be over 76 mm (3.0 in.) in height.

3.3.2 Marking shall be accomplished by the use of labels, stamping, stencilling, mechanical printing, typing, or tagging, dependent upon the size of space available.

3.3.3 Lettering shall be applied by stencilling, mechanical printing or typing, dependent upon the size of space available.

3.3.4 When authorized, hand printing in capital letters may be permitted provided that the lettering is uniform and legible.

3.3.5 Printing inks and dyes shall be fade resistant. Markings applied by means of printing inks and dyes shall be clearly legible after 48-hours exposure in a weatherometer, in accordance with Method 122.2 of Specification 1-GP-71.

3.3.6 Colour of markings shall be black except that on surfaces where black is not legible, the colour shall be one which provides a definite contrast. Yellow or white lettering shall be applied over lustreless olive drab colour on metal drums.

3. EXIGENCES

3.1 Méthodes de marquage

3.2 Code à bâtonnets. Quand cette norme l'exige, les contenants unitaires, les contenants intermédiaires et les contenants d'expédition doivent porter un code à bâtonnets standard conforme à la description qui en est donnée à l'appendice 3.

3.3 Lisibilité

3.3.1 Les marques doivent être aussi grandes que possible, compte tenu de l'espace disponible. Les lettres ne doivent cependant pas faire plus de 76 mm (3 po) de hauteur.

3.3.2 Le marquage doit se faire à l'aide d'étiquettes ou de timbres, au pochoir, par impression mécanique ou à la machine à écrire, compte tenu de l'espace disponible.

3.3.3 Le lettrage doit se faire au pochoir, par impression mécanique ou à la machine à écrire, compte tenu de l'espace disponible.

3.3.4 On pourra également tracer des lettres majuscules à la main pourvu qu'elles soient uniformes et lisibles et qu'on en ait obtenu l'autorisation.

3.3.5 Les teintures et les encres d'imprimerie doivent résister à la lumière. Les marques faites avec des teintures et des encres d'imprimerie doivent être clairement lisibles après avoir été traitées pendant 48 heures avec un appareil d'exposition aux agents atmosphériques, conformément à la méthode 122.2 de la norme 1-GP-71.

3.3.6 Les marques doivent être de couleur noire, sauf sur les surfaces où le noir ne serait pas lisible, auquel cas on choisira des couleurs contrastées. Sur les barils de métal, le lettrage sera jaune ou blanc, sur fond gris olivâtre mat.

3.3.7 Printing may be utilized at the option of the contractor. Printed markings may be applied on all interior and exterior containers.

3.3.8 Old markings which are not applicable may be obliterated using paint conforming to CAN/CGSB-1.47-M89.

3.4 Labels

3.4.1 Markings shall be applied to the label by machine printing, typing or stencilling. Carbon paper impressions will not be permitted.

3.4.2 Labels shall be secured by means of water resistant adhesive conforming to MMM-A-179. Pressure-sensitive labels may be used on containers other than wood.

3.4.3 When labels are secured to scrim-backed materials by means of pressure-sensitive water-resistant transparent tape conforming to 43-GP-3, the tape shall completely encircle the packed item.

3.5 Stencils

3.5.1 Stencilling of porous or nonporous surfaces shall be accomplished by brushing, rolling, or spraying a sharply cut stencil with stencilling ink. Surfaces shall be clean and smooth so that the markings will stand out clearly.

3.5.2 Unless otherwise specified, black stencilling ink shall be used for light-coloured surfaces and white stencilling ink for dark-coloured surfaces. Ink shall conform to A-A-208 for porous and nonporous surfaces. Stencil lacquer shall conform to TT-L-26.

3.6 Tags

3.6.1 Tags shall conform to 6.15M and shall be mechanically printed or typed.

3.6.2 Tags shall be securely affixed to wooden surfaces by stapling, tacking, or nailing. A minimum of four fasteners shall be used. Staples, tacks, or nails shall not protrude through the container walls.

3.3.7 L'entrepreneur peut également choisir d'imprimer les marques; celles-ci peuvent l'être sur tous les contenants intérieurs et extérieurs.

3.3.8 Les anciennes marques qui sont devenues inutiles peuvent être masquées avec une peinture conforme à la norme CAN/ONGC-1.47-M89.

3.4 Étiquettes

3.4.1 Les étiquettes doivent être imprimées mécaniquement ou marquées à la machine à écrire ou au pochoir. L'utilisation de papier carbone n'est pas autorisée.

3.4.2 Les étiquettes doivent être fixées à l'aide d'un adhésif imperméable, conforme à la norme MMM-A-179. Les étiquettes autocollantes ne doivent pas être appliquées sur les contenants de bois.

3.4.3 Si une étiquette est apposée sur un matériau à dos de canevas léger à l'aide d'un ruban autocollant, transparent et imperméable qui est conforme à la norme 43-GP-3, le ruban doit encercler complètement l'article emballé.

3.5 Pochoirs

3.5.1 Le marquage au pochoir des surfaces poreuses ou non poreuses doit se faire à la brosse, au rouleau ou au pulvérisateur, avec un pochoir bien découpé et de l'encre à pochoir. La surface doit être propre et lisse, de manière que les marques ressortent bien.

3.5.2 À moins d'indication contraire, on utilisera de l'encre à pochoir noire sur les surfaces pâles et de l'encre à pochoir blanche sur les surfaces foncées. L'encre appliquée sur les surfaces poreuses et non poreuses doit être conforme à la norme A-A-208, et la laque à pochoir, à la norme TT-L-26.

3.6 Étiquettes volantes

3.6.1 Les étiquettes volantes doivent être conformes à la norme 6.15M et imprimées mécaniquement ou dactylographiées.

3.6.2 Les étiquettes volantes qui sont appliquées à une surface de bois doivent être fixées avec au moins quatre attaches (agrafes, punaises ou clous). Les attaches ne doivent pas traverser la paroi du contenant.

3.6.3 When the method of affixing tags by stapling, tacking, or nailing is impracticable, tags shall be secured as follows:

- (a) Wire ties shall be used when the wires will not cause damage to the item.
- (b) Strong twine ties may be used when possible damage to the items would result from the use of wire.
- (c) Twine may be used for small identification tags in interior packs.
- (d) Tags used in the marking of shipping containers shall be waterproofed after markings have been applied, by spraying or brushing with water-resistant label adhesive or clear lacquer conforming to TT-L-26.

3.7 Marking of interior containers. There are four types of required markings:

- (a) Identification markings.
- (b) Preservation markings.
- (c) Shelf life markings.
- (d) Special markings.

3.7.1 Identification markings. Unless otherwise specified, the following information shall appear on the interior packages (unit packs and intermediate containers) in the order listed (see Figures 1 and 2):

- (a) NATO stock number (in standard bar code symbology as per Appendix 3).
- (b) Nomenclature, including serial number when applicable.
- (c) Quantity/Unit of Issue.
- (d) Protection and date markings.
- (e) Contract serial number (as shown on the contract; see Appendix 2).
- (f) Special markings.

Note: When specified or permitted, identification markings may be omitted from commercially identified items in dispensing containers, eg, shoe polish, baking soda, cleaner.

3.6.3 S'il n'est pas possible de fixer une étiquette volante à un contenant au moyen d'agrafes, de punaises ou de clous, on procédera comme suit:

- (a) Utiliser un lien de métal si celui-ci ne risque pas d'endommager l'article.
- (b) Utiliser de la ficelle forte si un lien de métal risque d'endommager l'article.
- (c) Les petites étiquettes d'identification d'articles protégés par un contenant intérieur peuvent être attachées avec de la simple ficelle.
- (d) Les étiquettes volantes utilisées dans le marquage des contenants d'expédition doivent être imperméabilisées, une fois le marquage fait, par pulvérisation ou par application à la brosse d'un adhésif imperméable ou d'une laque transparente, conforme à la norme TT-L-26.

3.7 Marquage des contenants intérieurs. Quatre types de marquages requis:

- (a) Marquages d'identification.
- (b) Marques de préservation.
- (c) Durée de conservation.
- (d) Marques spéciales.

3.7.1 Marquages d'identification. À moins d'indication contraire, les renseignements suivants doivent paraître sur les contenants intérieurs (contenants unitaires et intermédiaires), dans l'ordre indiqué (voir figures 1 et 2):

- (a) Numéro de nomenclature OTAN (utiliser un code à bâtonnets standard conforme aux prescriptions de l'appendice 3).
- (b) Description et, s'il y a lieu, numéro de série.
- (c) Quantité/unité de distribution.
- (d) Protection et date.
- (e) Numéro de série du contrat (numéro indiqué au contrat, voir l'appendice 2).
- (f) Marques spéciales.

Nota: Sur demande ou après avoir obtenu l'autorisation, on pourra omettre de faire le marquage d'identification des articles commerciaux qui sont déjà identifiés (cirage à chaussures, bicarbonate de soude, produits de nettoyage, etc).

3.7.2 Bar code requirement (NATO stock number). The NATO stock number (NSN), in the standard bar code symbology described in Appendix 3, shall be applied to all unit packs and intermediate containers. The NSN shall be the exact NSN specified on the procurement document. When no NSN is shown on the procurement document, the manufacturer's part number (MFR/PN) or other identification number shall be applied to the package but shall not be bar coded. Space shall be provided immediately above the identification number for the subsequent marking of the NSN. The bar coded NSN shall consist of the basic thirteen data characters. Prefixes and suffixes to the NSN as well as spaces and dashes shall not be bar coded. The human readable interpretation (HRI) of the bar coded NSN shall be located preferably below the bar code marking or optionally above the bar code marking. The HRI shall be an exact interpretation of the bar coded data and will not contain spaces or dashes (see Appendix 3, Figure 15). Bar code markings may be applied either by labels or by direct printing on the package or container, other than wood containers. On wood containers, the bar code markings shall be applied only by the use of labels. On surfaces that absorb, smudge or otherwise distort integrity of printed bar code symbology (eg, a porous material) labels only shall be applied.

3.7.3 Nomenclature. The nomenclature shall be the exact nomenclature of the item specified in the contract or order. The serial number, when applicable, shall be shown as part of the nomenclature.

3.7.4 Quantity/unit of issue. Quantity shall be the number of items contained in each interior package. The abbreviation QTY shall not be used. The unit of issue, as specified in the procurement document, shall be included and shall be abbreviated, eg, 1 ea (see Figure 2).

3.7.5 Protection and date markings. The level, method and date (month and year) of interior packaging shall be shown in that order, eg, A-1A8-12/89 indicates a Level A interior package, Method 1A8 interior packaging, applied in December 1989. Where a level of interior packaging is not shown on the contract or order, the method and date only shall be shown, eg, 1A8-12/89 (see Figure 2).

3.7.2 Code à bâtonnets (numéro de nomenclature OTAN). Le numéro de nomenclature OTAN (NNO) doit être appliqué sur tous les contenants unitaires et intermédiaires, sous la forme d'un code à bâtonnets standard conforme aux prescriptions de l'appendice 3. Le NNO doit être celui qui figure dans le document d'acquisition. Si le document d'acquisition ne donne pas le NNO de l'article, on utilisera le numéro de pièce du fabricant (N° DE PIÈCE DU FAB.) ou un autre numéro d'identification, mais non un code à bâtonnets. On veillera à laisser au-dessus du numéro d'identification l'espace voulu pour que le NNO puisse être ajouté plus tard. Le code à bâtonnets du NNO doit comporter les 13 caractères de base voulus. Les préfixes et les suffixes du NNO ainsi que les espaces et les traits d'union ne doivent pas être codés. L'explication en clair du code à bâtonnets du NNO doit se trouver de préférence sous le code à bâtonnets; sinon, on l'indiquera au-dessus. Elle doit correspondre exactement aux données du code à bâtonnets et ne comporter ni espace ni trait d'union (voir appendice 3, figure 15). Le code à bâtonnets peut être indiqué avec une étiquette ou imprimé directement sur l'emballage ou le contenant, à moins que celui-ci ne soit fait de bois, auquel cas on utilisera une étiquette. De même, on n'utilisera que des étiquettes sur les surfaces où le code risque d'être absorbé, étalé ou déformé (sur les matériaux poreux, par exemple).

3.7.3 Description. La description doit être la description exacte de l'article indiquée dans le contrat ou la commande. S'il y a lieu, le numéro de série de l'article sera indiqué.

3.7.4 Quantité/unité de distribution. La quantité indiquée doit correspondre au nombre d'articles de chaque contenant intérieur. Ne pas utiliser l'abréviation QUANT. Indiquer l'unité de distribution prévue dans le document d'approvisionnement et l'abréger — 1 CH., par exemple (voir figure 2).

3.7.5 Protection et date. Le niveau, la méthode et la date (mois et année) d'emballage du contenant intérieur doivent être donnés dans cet ordre; par exemple, A-1A8-12/89 correspond à un contenant intérieur de niveau A et à un emballage intérieur fait suivant la méthode 1A8 en décembre 1989. Si le niveau du contenant intérieur ne figure pas dans le contrat ou la commande, on indiquera uniquement la méthode d'emballage et la date — 1A8-12/89, par exemple (voir figure 2).

Note: The words NATO Stock Number, Nomenclature, Quantity/Unit of Issue, Protection and Date Markings, and Special Markings, shall not be made part of the markings.

3.8 Preservation markings

3.8.1 Method II packages. Each basic or intermediate package, packaged in accordance with Method II of D-LM-008-001/SF-001 shall have the cautionary markings METHOD II PACKAGED — DO NOT OPEN EXCEPT FOR USE OR INSPECTION applied in red letters on the flexible water vapour resistant barrier and on each subsequent wrap or container. The markings may be stencilled on scrim back materials in letters not less than 12 mm (0.50 in.) high. When sufficient space is not available, or the barrier is a metal container, a label conforming to Figure 3 shall be used.

3.9 Shelf life markings

3.9.1 There are two types of shelf life, consisting of those items which are considered no longer serviceable after the expiration date has been reached, and those items for which the prescribed storage life can be extended, provided they are inspected and/or repaired in accordance with the pertinent technical specifications and other directives. The following examples of shelf life markings shall be applied where required:

(a) Example I — Non-relifeable items:

Date (manufactured, cured, assembled, packed) _____
(apply one as applicable)

Expires or expiration date _____

(b) Example II — Relifeable items:

Date (manufactured, cured, assembled, packed) _____
(apply one as applicable)

Inspection/test date _____

Nota: Les mots numéro de nomenclature OTAN, description, quantité/unité de distribution, protection et date et marques spéciales ne doivent pas être eux-mêmes marqués.

3.8 Marques de préservation

3.8.1 Emballages faits suivant la méthode II. Les contenants intérieurs ou intermédiaires qui ont été emballés suivant la méthode II exposée dans le document D-LM-008-001/SF-001 doivent porter l'avertissement EMBALLE SUIVANT LA MÉTHODE II — NE PAS OUVRIR SAUF POUR USAGE OU INSPECTION, qu'on appliquera en lettres rouges sur la barrière souple et imperméable et sur chaque emballage ou contenant ultérieur. Les marques peuvent également être faites au pochoir sur les matériaux à dos de canevas léger, en lettres d'au moins 12 mm (0,5 po) de hauteur. Si l'espace manque ou si la barrière est un contenant de métal, on utilisera une étiquette conforme à la figure 3.

3.9 Durée de conservation

3.9.1 Sur le plan de la durée de conservation, on distingue deux types d'articles: ceux qu'on considère inutilisables une fois que la date d'expiration a été atteinte et ceux dont la durée d'entreposage peut être prolongée pourvu qu'ils soient inspectés ou réparés conformément aux normes techniques utiles ou à d'autres directives. On utilisera donc l'un des modèles suivants pour indiquer la durée de conservation:

(a) Exemple I — Articles dont la durée d'entreposage ne peut pas être prolongée:

Date (de fabrication, de vulcanisation, d'assemblage, d'emballage) _____
(utiliser la mention utile)

Date d'expiration _____

(b) Exemple II — Articles dont la durée d'entreposage peut être prolongée:

Date (de fabrication, de vulcanisation, d'assemblage, d'emballage) _____
(utiliser la mention utile)

Date d'inspection ou d'essai _____

3.9.2 When specified (as in contracts, purchase orders or other documents) shelf life markings, date of manufacture, cure, assembly or pack, as applicable, shall be applied to unit packs, intermediate packs and exterior containers or unpacked items.

3.9.3 For all items required to be marked with the date of manufacture, the date shall be applied. For medical items having an expiration date, the date of manufacture shall not be shown. When two or more unit packs of identical items bear different dates of manufacture, the earliest date shall be shown on the shipping container.

3.9.4 For all rubber (or synthetic elastomers) items required to be marked with the cure date, the markings shall be applied using the calendar quarter and year eg, 2Q90 (represents second quarter 1990). When two or more units packs of identical items bear different cure dates the earliest date shall be shown on the shipping container.

3.9.5 For all items required to be marked with the date of assembly, the date shall be applied. When more than one shelf life item is packed in an assembly, the expiration date of the item with the earliest expiration date shall be shown and applied.

3.9.6 For all items required to be marked with the date of pack, the date shall be applied. When two or more packs of identical items bear different dates of pack, the earliest date shall be shown on the shipping container.

3.9.7 The expiration date is only required for non-relifeable shelf life items (an item of supply with a definite nonextendable period of shelf life). For drugs and biological items (potency-dated materials), the expiration date shall be as required by statutes or contract. When the date of the month is included in the expiration date, the month will be designated by the name of the month and **not** by the numerical designation of the month. Cure dated items shall have the expiration date shown by quarter and calendar year eg, 1Q90.

3.9.8 For items of supply with an assigned shelf life which may be extended after completion of prescribed inspection/test/restorative action, the manufacturer or supplier shall apply an inspection/test date, the date shall be shown

3.9.2 Si le contrat, le bon d'achat ou d'autres documents le prévoient, on indiquera la durée de conservation et, selon le cas, la date de fabrication, de vulcanisation, d'assemblage ou d'emballage, selon le cas, sur les contenants unitaires, les contenants intermédiaires, les contenants extérieurs ou les articles non emballés.

3.9.3 Indiquer la date de fabrication de tous les articles dont la date de fabrication doit être indiquée, à moins qu'il ne s'agisse de fournitures médicales comportant une date d'expiration. Si des contenants unitaires d'articles identiques portent des dates de fabrication différentes, indiquer la plus reculée sur le contenant d'expédition.

3.9.4 Indiquer le trimestre et l'année (2T90 pour désigner le deuxième trimestre de 1990, par exemple) de vulcanisation de tous les articles de caoutchouc (ou d'élastomères) dont la date de vulcanisation doit être indiquée. Si des emballages unitaires d'articles identiques portent des dates de vulcanisation différentes, indiquer la plus reculée sur le contenant d'expédition.

3.9.5 Indiquer la date d'assemblage de tous les articles dont la date d'assemblage doit être indiquée. Si les éléments d'un assemblage n'ont pas tous la même durée de conservation, indiquer la date d'expiration de l'article dont la durée de conservation expire en premier.

3.9.6 Indiquer la date d'emballage de tous les articles dont la date d'emballage doit être indiquée. Si des emballages contenant des articles identiques portent des dates d'emballage différentes, indiquer la plus reculée sur le contenant d'expédition.

3.9.7 N'indiquer la date d'expiration que si la durée de conservation d'un article ne peut pas être prolongée. Dans le cas des drogues ou des fournitures biologiques qui portent une date d'efficacité, la date d'expiration doit être celle que prévoit la loi ou le contrat. Si le mois figure dans la date d'expiration, il sera désigné par son nom et **non** par un chiffre. La date d'expiration des articles vulcanisés doit prendre la forme trimestre/année civile (1T90, par exemple).

3.9.8 Les articles d'approvisionnement dont la durée de conservation peut être prolongée une fois que les mesures d'inspection, d'essai ou de remise en état prévues ont été prises doivent porter la date d'inspection/essai prévue

by month and calendar year eg, 12/90. This indicates the date on which shelf life shall expire (unless extended as a result of inspection/test). The manufacturer or supplier shall provide space for additional inspection/test dates. The space shall be used when the initial date is lined out and subsequent inspection/test dates are applied. When two or more unit packs of identical items bear different inspection/test dates, only the earliest date shall be shown on the shipping container.

Note: Items that are nondeteriorative shall not require shelf life markings.

3.10 Special markings

3.10.1 Subject to the nature of the material packaged, cautionary markings such as FRAGILE, GLASS, POISON, PERISHABLE, KEEP FROM FREEZING (maintain at temperatures above ...degrees Celsius), or other special handling markings of a similar nature, shall appear on the unit and intermediate containers, as applicable.

3.10.2 When specified, the following additional special markings shall be applied:

- (a) Year of manufacture.
- (b) Specification number (type, grade, class) of item.
- (c) Manufacturer's name.
- (d) Manufacturer's part or drawing number.
- (e) Manufacturer's batch number.
- (f) Qualification number.
- (g) Cure date of rubber components.
- (h) Date of repair or overhaul.
- (j) Name of repair or overhaul contractor.
- (k) Modification status.
- (m) Other data required by contract or commodity specification.

par le fabricant ou le fournisseur, celle-ci étant indiquée sous la forme mois/année civile (12/90, par exemple). Cette marque correspond à la date à laquelle la durée de conservation de l'article expire (à moins qu'elle n'ait été prolongée par suite d'une inspection ou d'un essai). Le fabricant ou le fournisseur doit laisser l'espace voulu pour qu'on puisse ajouter d'autres dates d'inspection ou d'essai. On utilisera cet espace après avoir biffé la date initiale, pour indiquer des dates d'inspection/essai subséquentes. Si des contenants unitaires d'articles identiques portent des dates d'inspection/essai différentes, on indiquera la plus reculée sur le contenant d'expédition.

Nota: Les articles qui ne se détériorent pas n'ont pas à porter de date de durée de conservation.

3.10 Marques spéciales

3.10.1 Compte tenu de la nature des articles emballés, on mettra sur les contenants unitaires et intermédiaires les mentions d'avertissement utiles: FRAGILE, VERRE, POISON, PÉRISSABLE, PROTÉGER CONTRE LE GEL (garder à au moins degrés Celsius), par exemple.

3.10.2 S'il y a lieu, on pourra ajouter les marques spéciales suivantes:

- (a) Année de fabrication.
- (b) Numéro de spécification (type, qualité, classe) de l'article.
- (c) Nom du fabricant.
- (d) Numéro de pièce ou de dessin du fabricant.
- (e) Numéro de lot du fabricant.
- (f) Numéro d'acceptation.
- (g) Date de vulcanisation des éléments de caoutchouc.
- (h) Date de réparation ou de révision.
- (j) Nom de l'entrepreneur en réparation ou révision.
- (k) Statut de modification.
- (m) Autres données requises en vertu du contrat ou des spécifications du produit.

3.10.3 Electrostatic discharge sensitive (ESDS) material. Unit packs containing ESDS electronic components and devices shall be marked with a warning label as shown in Figure 10. The symbol and lettering of each label shall be printed in black on a yellow background.

3.10.4 Positioning and application of markings. Position and application of markings shall be as follows:

(a) Rectangular containers shall have markings positioned as illustrated in Figure 4.

(b) Cylindrical containers shall have markings positioned as illustrated in Figure 5.

3.10.5 Markings shall be stencilled or printed directly on the container, or where this is not possible, shall be applied by means of stencilled, printed, or typed labels or tags firmly affixed to containers or unboxed items.

3.10.6 Labels shall be affixed on sealed transparent or opaque barrier bags or wraps in such a manner that they adhere firmly to the exterior surface of the bag or wrap.

3.11 Marking of shipping containers

3.11.1 Identification markings. The following information shall appear on all shipping containers, palletized unit loads, and unpacked items:

(a) Description of contents, unless otherwise specified, shall show the following information in the order listed:

- i NATO stock number.
- ii Nomenclature.
- iii Quantity/Unit of Issue.
- iv Protection and date markings (see 3.11.1(b)).
- v Contract serial number (as shown on the contract; see Appendix 2).
- vi Special markings (see 3.11.9).

3.10.3 Articles sensibles aux décharges électrostatiques. Les contenants unitaires qui contiennent des articles électroniques sensibles aux décharges électrostatiques doivent porter une étiquette d'avertissement conforme au modèle de la figure 10. Le symbole d'avertissement et le message seront imprimés en noir sur fond jaune.

3.10.4 Position et application des marques:

(a) Sur les contenants rectangulaires, la position des marques sera conforme à celle de la figure 4.

(b) Sur les contenants cylindriques, la position des marques sera conforme à celle de la figure 5.

3.10.5 Les marques doivent être tracées au pochoir ou imprimées directement sur le contenant; si cela n'est pas possible, elles seront faites au pochoir, imprimées ou dactylographiées sur une étiquette qu'on veillera à bien apposer ou à attacher solidement aux contenants ou aux articles non mis sous boîte.

3.10.6 Les étiquettes apposées sur un sac ou un emballage barrière scellé (transparent ou non) doivent bien adhérer à la surface extérieure du sac ou de l'emballage.

3.11 Marquage des contenants d'expédition

3.11.1 Marques d'identification. Les contenants d'expédition, les charges unitaires sur palette et les articles non emballés doivent porter les renseignements suivants:

(a) À moins d'indication contraire, la description du contenu doit présenter, dans l'ordre, les renseignements suivants:

- i Numéro de nomenclature OTAN.
- ii Description.
- iii Quantité/unité de distribution.
- iv Protection et date (voir 3.11.1(b)).
- v Numéro de série du contrat (numéro indiqué au contrat, voir l'appendice 2).
- vi Marques spéciales (voir 3.11.9).

Note: All shipping containers enclosing like items of material in both unit packages or intermediate containers shall have the NATO stock number, contract number, quantity/unit of issue, protection and date markings, and quality assurance code applied in the standard bar code symbology described in Appendix 3 (see Figure 18). Shipping containers enclosing mixed items of material shall be marked in accordance with 3.11.1(c).

(b) The level of interior packaging, the level of packing, the method and date of interior packaging (month and year) shall be shown in that order, eg, A B-1A8-12/90 indicates a Level A interior package, a Level B pack, Method 1A8 interior packaging applied in December 1990. Where levels of interior packaging and packaging are not shown on the contract or order, the method and date only shall be shown, eg, 1A8-12/90.

(c) All items shall be identified and the shipping container marked MIXED CONTENTS when unlike items are packed together in a shipping container.

3.11.2 Shipping instructions. Shipping instructions shall consist of the following:

- (a) Consignee (see note).
- (b) Consignor.
- (c) Case No. ____ of _____. (Total number cases in shipment.)

Note: If shipment is consigned to a consignee for trans-shipment to ultimate destination, the shipping container shall indicate after consignee FOR (ultimate recipient).

3.11.3 Contract identification. Contract identification shall include the contract serial number (see Appendix 2).

3.11.4 Set or assembly markings. Set or assembly markings are shown in Figure 6.

3.11.5 When sets or assemblies are packed into two or more shipping containers, each container shall bear a 51 mm (2.04 in.) solid black circle conspicuously placed on the same face of the container as the description of contents markings.

Nota: Les contenants d'expédition qui renferment des contenants unitaires et des contenants intermédiaires d'articles semblables doivent porter le numéro de nomenclature OTAN, le numéro du contrat, la quantité ou l'unité de distribution, les mesures de protection requises et la date ainsi que le code d'assurance de la qualité en code à bâtonnets standard (voir la figure 18 de l'appendice 3). Les contenants d'expédition qui renferment des articles divers doivent être marqués en conformité avec les dispositions du 3.11.1(c).

(b) Le niveau du contenant intérieur, le niveau d'emballage ainsi que la méthode et la date d'emballage intérieur (mois et année) doivent être indiqués dans l'ordre; par exemple, l'inscription A B-1A8-12/90 correspond à un contenant intérieur de niveau A, un emballage de niveau B, un emballage intérieur fait suivant la méthode 1A8, en décembre 1990. Si le niveau du contenant intérieur ou le niveau d'emballage n'est pas prévu dans le contrat ou la commande, indiquer seulement la méthode et la date d'emballage (1A8- 12/90, par exemple).

(c) Si des articles disparates sont réunis dans un contenant d'expédition, on s'assurera que chacun est identifié et que le contenant d'expédition porte l'indication ARTICLES DIVERS.

3.11.2 Instructions d'expédition. Les instructions d'expédition doivent présenter les renseignements suivants:

- (a) Destinataire.
- (b) Expéditeur (voir note).
- (c) Boîte ____ de ____ (nombre total de boîtes de l'envoi).

Nota: Si des articles sont envoyés à un destinataire qui doit les faire suivre, on indiquera sur le contenant d'expédition, après le nom du destinataire, le terme POUR (destinataire final).

3.11.3 Identification du contrat. L'identification du contrat doit comporter le numéro de série du contrat (voir l'appendice 2).

3.11.4 Marques de jeu ou d'ensemble. Les marques de jeu ou d'ensemble sont représentées à la figure 6.

3.11.5 Si des jeux ou des ensembles d'articles sont mis dans plusieurs contenants d'expédition, on prévoira sur chaque contenant un cercle noir de 51 mm (2,4 po), sur la face portant la description du contenu.

3.11.6 The word SET should be stencilled directly under the black circle, followed by the number of the set.

3.11.7 If specified, the serial number of the main equipment will be used instead of the set number.

3.11.8 Two numbers, in the form of a fraction, shall be stencilled under the set number or serial number. The numerator will be the serial number of the container in that particular set, and the denominator will be the total number of containers making up the set.

3.11.9 **Special markings (other than preservation markings)**

3.11.10 Each reusable exterior container shall have the following markings prominently displayed in bilingual English/French format:

REUSABLE CONTAINER DO NOT DESTROY/CONTENANT RÉUTILISABLE, NE PAS DÉTRUIRE

3.11.11 Reusable metal containers of 18 L (4 gal) capacity or greater, and face exceeding 0.28 M³ (10 cu ft) shall be clearly marked in bilingual English/French format with the additional marking:

CANADIAN FORCES PROPERTY/PROPRIÉTÉ DES FORCES CANADIENNES

3.11.12 If specified, the following additional markings shall be applied on the face of the container bearing the description of contents markings:

- (a) Specification number (type, grade, class) of item.
- (b) Manufacturer's name.
- (c) Manufacturer's part number or drawing number.
- (d) Manufacturer's batch number.
- (e) Qualification number.
- (f) Cure date of rubber components.
- (g) Other data required by contract or commodity specification.
- (h) Date of repair or overhaul.

3.11.6 Immédiatement sous le cercle noir, on inscrira au pochoir le mot JEU qu'on fera suivre du numéro du jeu.

3.11.7 S'il y a lieu, on utilisera le numéro de série de l'équipement principal au lieu du numéro du jeu.

3.11.8 Deux chiffres seront en outre inscrits au pochoir sous le numéro du jeu ou le numéro de série, sous la forme d'une fraction. Le numérateur correspondra au numéro du contenant du jeu en question, et le dénominateur, au nombre total de contenants formant le jeu.

3.11.9 **Marques spéciales (sauf marques de préservation)**

3.11.10 Les contenants extérieurs réutilisables doivent tous porter la mention suivante, en évidence, sous forme bilingue:

REUSABLE CONTAINER DO NOT DESTROY/CONTENANT RÉUTILISABLE, NE PAS DÉTRUIRE

3.11.11 Les contenants de métal réutilisables d'une capacité d'au moins 18 L (4 gal) et dont la surface fait au moins 0,28 m³ (10 pi³) doivent en outre porter, en évidence, la mention suivante, sous forme bilingue:

CANADIAN FORCES PROPERTY/PROPRIÉTÉ DES FORCES CANADIENNES

3.11.12 S'il y a lieu, on ajoutera les marques suivantes sur la face du contenant qui porte la description du contenu:

- (a) Numéro de spécification (type, qualité, classe) de l'article.
- (b) Nom du fabricant.
- (c) Numéro de pièce ou de dessin du fabricant.
- (d) Numéro de lot du fabricant.
- (e) Numéro d'acceptation.
- (f) Date de vulcanisation des éléments de caoutchouc.
- (g) Autres données requises en vertu du contrat ou des spécifications du produit.
- (h) Date de réparation ou de révision.

(j) Name of repair or overhaul contractor.

(k) Modification status.

(m) Year of manufacture.

3.11.13 Preservation markings. When specified, containers with items packaged to any of the methods of unit protection, other than Method III in D-LM-008-001/SF-001, shall have the following markings applied in bilingual English/French format:

**CONTAINS METHODS (as applicable) PACK(S)/
CONTIENT DES ARTICLES EMBALLÉS
SUIVANT LA MÉTHODE**

3.11.14 Method II packages. Each shipping container containing one or more Method II packages shall have the following markings applied in bilingual English/French format:

**CONTAINS METHOD II PACK(S)/CONTIENT
DES ARTICLES EMBALLÉS SUIVANT LA
MÉTHODE II**

3.11.15 If the shipping container is an integral part of the Method II package, the following markings shall be applied in bilingual English/French format:

**METHOD II PACKAGE DO NOT OPEN EXCEPT
FOR USE OR INSPECTION/MÉTHODE II —
NE PAS OUVRIR SAUF POUR USAGE OU
INSPECTION**

3.11.16 Handling markings. The handling markings shall be applied in bilingual English/French format (see Figure 7).

3.11.17 Cautionary markings. The cautionary markings shall be applied in bilingual English/French format (see Figure 7).

3.11.18 Weight, cube and dimensional data areas follows:

(a) **Outside dimensions.** The outside dimensions shall be shown on all shipping containers, bundles, or palletized unit loads having any single dimension 183 cm (72 inches) or more. Outside dimensions shall be shown in the order of length, width, and height, and shall appear directly under weight and cube markings in addition to the cube.

(j) Nom de l'entrepreneur en réparation ou révision.

(k) Statut de modification.

(m) Année de fabrication.

3.11.13 Marques de préservation. Les contenants qui renferment des articles qui ont été protégés suivant une méthode d'emballage autre que la méthode III exposée dans le document D-LM-008-001/SF-001 doivent porter la mention suivante, sous forme bilingue:

**CONTAINS METHODS (as applicable) PACK(S)/
CONTIENT DES ARTICLES EMBALLÉS
SUIVANT LA MÉTHODE**

3.11.14 Articles emballés suivant la méthode II. Les contenants d'expédition qui contiennent un ou plusieurs articles emballés suivant la méthode II doivent porter la mention suivante, sous forme bilingue:

**CONTAINS METHOD II PACK(S)/CONTIENT
DES ARTICLES EMBALLÉS SUIVANT LA
MÉTHODE II**

3.11.15 Si un contenant d'expédition forme lui-même un emballage conforme à la méthode II, on y indiquera la mention suivante, sous forme bilingue:

**METHOD II PACKAGE DO NOT OPEN EXCEPT
FOR USE OR INSPECTION/MÉTHODE II —
NE PAS OUVRIR SAUF POUR USAGE OU
INSPECTION**

3.11.16 Marques de manutention. Les marques de manutention doivent être faites sous forme bilingue (voir la figure 7).

3.11.17 Marques d'avertissement. Les marques d'avertissement doivent être faites sous forme bilingue (voir figure 7).

3.11.18 Poids, volume et dimensions:

(a) **Dimensions extérieures.** Les dimensions extérieures doivent être indiquées sur les contenants extérieurs, les ballots ou les charges unitaires sur palette dont l'une des dimensions est supérieure à 183 cm (72 po). Les dimensions extérieures doivent être indiquées dans l'ordre longueur-largeur-hauteur et paraître directement sous le poids et le volume.

(b) **Gross weight.** The weight shown on the shipping containers shall be the gross weight, indicated to the nearest kilogram (2.2 lb). The abbreviation WT shall be used.

(c) **Cube.** The cube shall be the cubic displacement of the shipping container, bundle, pallet load, or the item, whichever is the greater, calculated from the extreme overall length, width, and height dimensions. It shall be shown in cubic feet to the nearest 0.003 M³ (1/10 cu ft), expressed decimally. Irregular, cylindrical, and round items shall be considered as rectangular. The abbreviation CU shall be used.

3.12 Special markings

3.12.1 Subject to the nature of the material packed, cautionary markings such as FRAGILE, GLASS, POISON, PERISHABLE, KEEP FROM FREEZING or other cautionary or handling markings of a similar nature, shall appear on the shipping container. Such markings shall not interfere with or obscure other container markings.

3.12.2 Other handling markings shall be applied as required by container or commodity specifications.

3.12.3 **Foreign language markings.** When specified, material packaged for export or air shipment to Service establishments in Europe shall bear (for information of carriers) such markings as weight, handling and storage instructions in whichever of the following languages is deemed appropriate. Suitable precautionary words and phrases are as follows:

ENGLISH

Weight

Top

Glass

Fragile

Open Here

Keep Dry

Handle with Care

This Side Up

Use No Hooks

FRENCH/FRANCAIS

Poids

Dessus

Verre

Fragile

Ouvrir ici

Garder au sec

Manipuler avec soin

Cette face en haut

Maniers sans crampons

(b) **Poids brut.** Le poids donné sur un contenant d'expédition doit être le poids brut; il sera indiqué au kilogramme (2,2 lb) près.

(c) **Volume.** Le volume correspond au déplacement cubique du contenant, du ballot, de la charge palettisée ou de l'article, la valeur la plus importante étant à retenir. Il se calcule à l'aide des dimensions hors tout. L'indiquer en pieds cubes, à 0,1 pi³ près (0,003 m³), en décimales. Les articles de forme irrégulière, cylindriques ou ronds seront assimilés à des articles rectangulaires. Utiliser l'abréviation VOL.

3.12 Marques spéciales

3.12.1 Compte tenu de la nature des produits emballés, on mettra sur le contenant d'expédition des mentions d'avertissement suivantes: FRAGILE, VERRE, POISON, PÉRISSABLE, PROTÉGER CONTRE LE GEL, etc. Ces marques ne doivent pas masquer ni couvrir les autres marques.

3.12.2 Les autres marques de manutention seront appliquées en conformité avec les normes relatives au contenant ou les spécifications du produit.

3.12.3 **Marques en langue étrangère.** Les produits qui doivent être exportés ou envoyés par avion à des établissements militaires situés en Europe porteront, s'il y a lieu, des indications (à l'intention des transporteurs) touchant, par exemple, le poids ou les conditions de manutention et d'entreposage, dans les langues jugées utiles. On utilisera à cette fin les mentions suivantes:

GERMAN/ALLEMAND

Gewicht

Oberseite

Glas

Zerbrechlich

Hier Oeffnen

Vor Nasse Schuetzen

Vorsicht

Diesse Seite Oben

Ohne Haken Aufheben

3.13 Positioning and application. Positioning and application of markings shall be as follows.

3.13.1 Containers with a volume of up to 0.28 m³ (10 cu ft) shall have markings positioned as illustrated in Figure 8.

3.13.2 Containers with a volume of 0.28 m³ (10 cu ft) or more shall have markings positioned as illustrated in Figure 9.

3.13.3 Markings shall be stencilled or printed directly on the shipping container, or, when the design of the container does not permit this, markings shall be applied by means of stencilled, printed or typed labels or tags. Labels shall be securely affixed in place with water-resistant adhesive.

3.13.4 Reusable metal containers marked by means of labelling shall have labels affixed with pressure-sensitive adhesive.

3.13.5 Neat and legible hand printing is acceptable as a means of marking, subject to the approval of the Quality Assurance/Inspection Authority.

3.14 Size of markings

3.14.1 Size of lettering. As specified herein, lettering for all markings shall be capital letters of equal height, proportional to the available space of the container, and shall not exceed 76 mm (3.0 in.) in height:

(a) **Markings, other than the address on shipping containers.** Lettering for markings other than the address should be not less than 12 mm (0.50 in.) nor more than 25 mm (1.0 in.) in height on interrupted stencil letters and not less than 13 mm (0.52 in.) nor more than 25 mm (1.0 in.) on solid letters. The lettering may be reduced to 6 mm (0.24 in.) in height when the total area, or the available space of the panel to be marked, is not sufficient for the larger size lettering.

(b) **Address.** Lettering for the overseas address shall be not less than 12 mm (0.50 in.) nor more than 76 mm (3.0 in.) except when tags or labels are utilized. When address marking is applied by stencilling, it will be the most conspicuous marking on the container and as large as available space permits.

3.13 Position et application. Les marques doivent être placées et appliquées de la manière décrite ci-dessous.

3.13.1 Contenants d'un volume inférieur à 0,28 m³ (10 pi³): placer les marques de la manière indiquée à la figure 8.

3.13.2 Contenants d'un volume de 0,28 m³ (10 pi³) et plus: placer les marques de la manière indiquée à la figure 9.

3.13.3 Les marques doivent être faites au pochoir ou imprimées directement sur le contenant d'expédition; si la forme du contenant ne le permet pas, les marques seront appliquées au pochoir, imprimées ou dactylographiées sur une étiquette qu'on collera au contenant avec un adhésif imperméable.

3.13.4 Les contenants de métal réutilisables qui sont marqués à l'aide d'étiquettes doivent porter des étiquettes autocollantes.

3.13.5 Les marques peuvent être tracées à la main si les instances d'inspection y consentent et pourvu qu'elles soient claires et lisibles.

3.14 Taille des marques

3.14.1 Taille du lettrage. Le lettrage doit se faire en majuscules d'égale hauteur et proportionnelles à l'espace disponible sur le contenant. Les lettres ne doivent pas faire plus de 76 mm (3 po) de hauteur:

(a) **Marques autres que l'adresse sur les contenants d'expédition.** Le lettrage des marques autres que l'adresse ne doit pas faire moins de 12 mm (0,5 po) ni plus de 25 mm (1 po) de hauteur s'il est fait au pochoir en lettres brisées, ni moins de 13 mm (0,52 po) et plus de 25 mm (1 po) s'il est fait en lettres pleines. Les lettres peuvent être réduites à une hauteur de 6 mm (0,24 po) si la superficie totale ou l'espace disponible ne conviennent pas à l'utilisation de plus grandes lettres.

(b) **Adresse.** Le lettrage des adresses à l'étranger ne doit pas faire moins de 12 mm (0,5 po) ni plus de 76 mm (3 po), à moins qu'on utilise une étiquette. Si l'adresse est écrite au pochoir, elle devra constituer l'inscription la plus évidente du contenant et occuper le plus d'espace possible.

3.15 Handling and Cautionary markings (see 3.11.16 and 3.11.17) shall be applied in a conspicuous position.

3.16 The contract supply voucher, release note, packing list, etc, shall be enclosed in a water-resistant envelope which shall be securely affixed to one end of the last container in each shipment.

3.16.1 Other documents which may accompany the shipment shall be placed on top of the packed stores in the last container in the shipment and the container shall be marked to indicate the enclosure. The markings shall be on the same face as the envelope referred to 3.16.

3.16.2 **Unboxed and uncrated items.** Identification and contractual information shall be stencilled directly on the base of the item when the design of the item is such as to permit this. Otherwise, markings shall be applied by means of tags which shall be securely attached to a suitable part of the item.

4. QUALITY ASSURANCE PROVISIONS

4.1 Quality conformance inspection shall consist of a visual inspection of the markings for storage and shipment to ensure adherence to the requirements of this specification and that required markings are not omitted, incorrect or illegible.

5. PACKAGING

Not applicable.

6. NOTES

Not applicable.

3.15 Les marques d'avertissement (voir 3.11.16 et 3.11.17) doivent être placées bien en évidence.

3.16 Le bon de commande, le bon de livraison, le bordereau d'expédition, etc. doivent être mis dans une enveloppe imperméable qu'on apposera sur l'une des extrémités du dernier contenant de chaque envoi.

3.16.1 Les autres documents qui peuvent accompagner l'envoi seront mis sur les articles expédiés, dans le dernier contenant de l'envoi, et le contenant sera marqué en conséquence. Les marques doivent être faites sur la face du contenant où a été apposée l'enveloppe dont il est question au paragraphe 3.16.

3.16.2 **Articles non mis sous boîte ou sous caisse.** La désignation de l'article et les renseignements prévus au contrat doivent dans ce cas être marqués directement au pochoir, sur la base de l'article. Si la forme de l'article ne le permet pas, les marques utiles seront portées sur des étiquettes qu'on attachera solidement à l'article.

4. CONTRÔLE DE LA QUALITÉ

4.1 L'inspection de conformité à la qualité doit consister d'une inspection visuelle des marques, d'entreposage et d'expédition afin de confirmer l'adhérence aux exigences de cette spécification et de s'assurer que les marques requis ne sont pas oubliées, incorrectes ou illisibles.

5. EMBALLAGE

Sans objet.

6. REMARQUES

Sans objet.

NATO STOCK NUMBER/ NUMÉRO DE NOMENCLATURE DE L'OTAN	(or other identification marking)/ (ou toute autre marque d'identification)
DESCRIPTION/ NOMENCLATURE	(including serial number when applicable)/ (y compris le numéro de série, s'il y a lieu)
QUANTITY/ QUANTITÉ	
PROTECTION AND DATE MARKINGS/ DATE ET PROTECTION REQUISE	
CONTRACT SERIAL NUMBER/ NUMÉRO DE SÉRIE DU CONTRAT	(as shown on the contract: see Annex C) (tel qu'il figure sur le contrat: voir l'annexe C)
SPECIAL MARKINGS/ MARQUES SPÉCIALES	

Figure 1 Identification Label — Marking Requirements

Figure 1 Étiquette d'identification — marques requises


 <p>5925218769219</p> <p>CIRCUIT BREAKER /DISJONCTEUR</p> <p>1 EA /1 CH.</p> <p>A-1A8-12-90</p> <p>W8463-9-DA3W/01-BG</p> <p>1990 (YR. OF MFR.) /(ANNÉE DE FABRICATION)</p>
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Figure 2 Identification Label — Complete

Figure 2 Étiquette d'identification — forme réelle

APPENDIX 1

APPENDICE 1

10. ABBREVIATIONS

10.1 **Scope.** This annex lists the authorized abbreviations.

10.2 **Abbreviations.** The following terms for units of issue, quantitative and weights and measures units, cross-referenced to Codes in abbreviated format, are authorized for use. The codes shall be utilized where the requirements for abbreviated markings are specified in this document. Miscellaneous marking and provincial abbreviations are also included. Abbreviations of items description not indicated herein may be permitted when approved by the inspection authority designated in the procurement document.

(a) Terms and applicable Codes are as follows:

10. ABRÉVIATIONS

10.1 **Portée.** Cette appendice présente la liste des abréviations autorisées.

10.2 **Abréviations.** Les termes abrégés des unités de dotation suivant concernant les unités quantitative, de poids, et de mesure qui sont référées aux codes selon la formule abrégée établie sont autorisés à être utilisés. Ces codes devront être utilisés lorsque le document exige l'utilisation des marques abrégées. Différentes indications et abréviations provinciales aussi inclus peuvent être utilisées selon le besoin. Par ailleurs, les abréviations de certaines nomenclature qui ne sont pas établies officiellement pourront être utilisées lorsque permise par l'autorité d'inspection désignée dans le document d'achat.

(a) Les termes et les codes applicable sont détaillés comme suit:

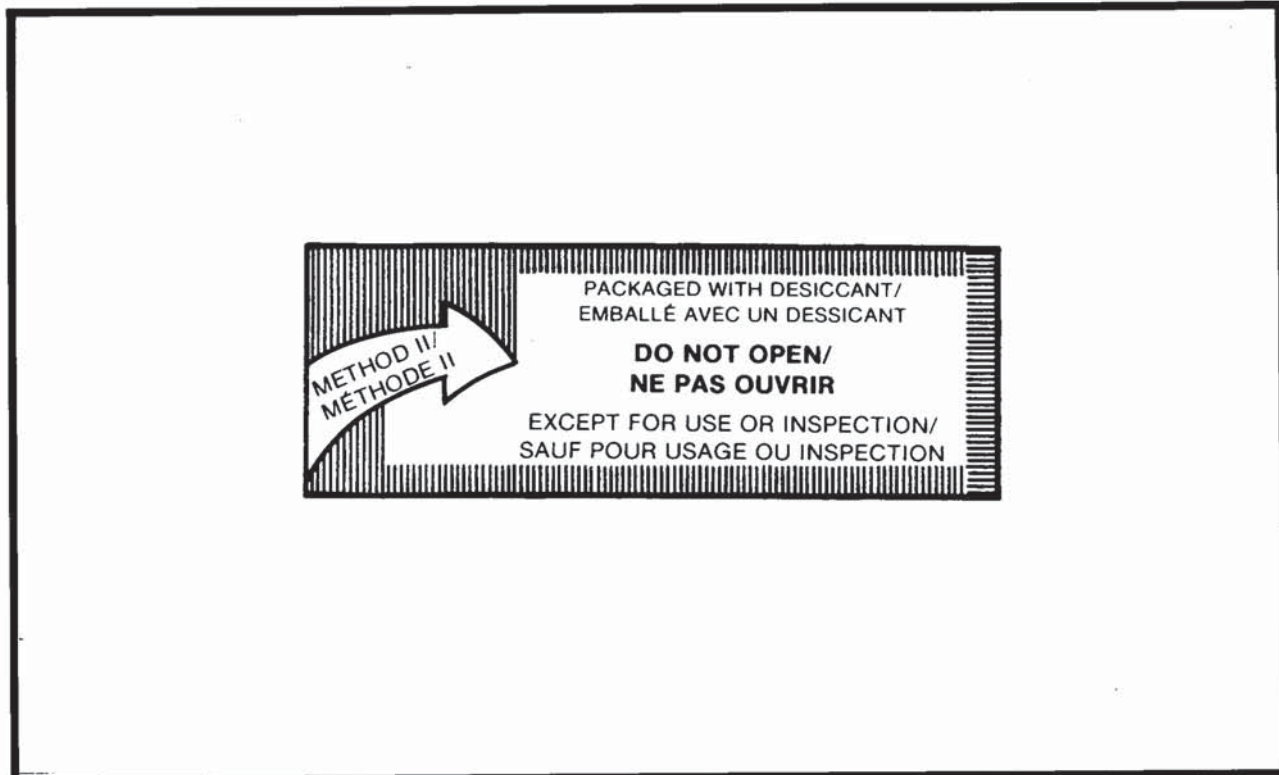


Figure 3 Method II Label

Figure 3 Étiquette de méthode II

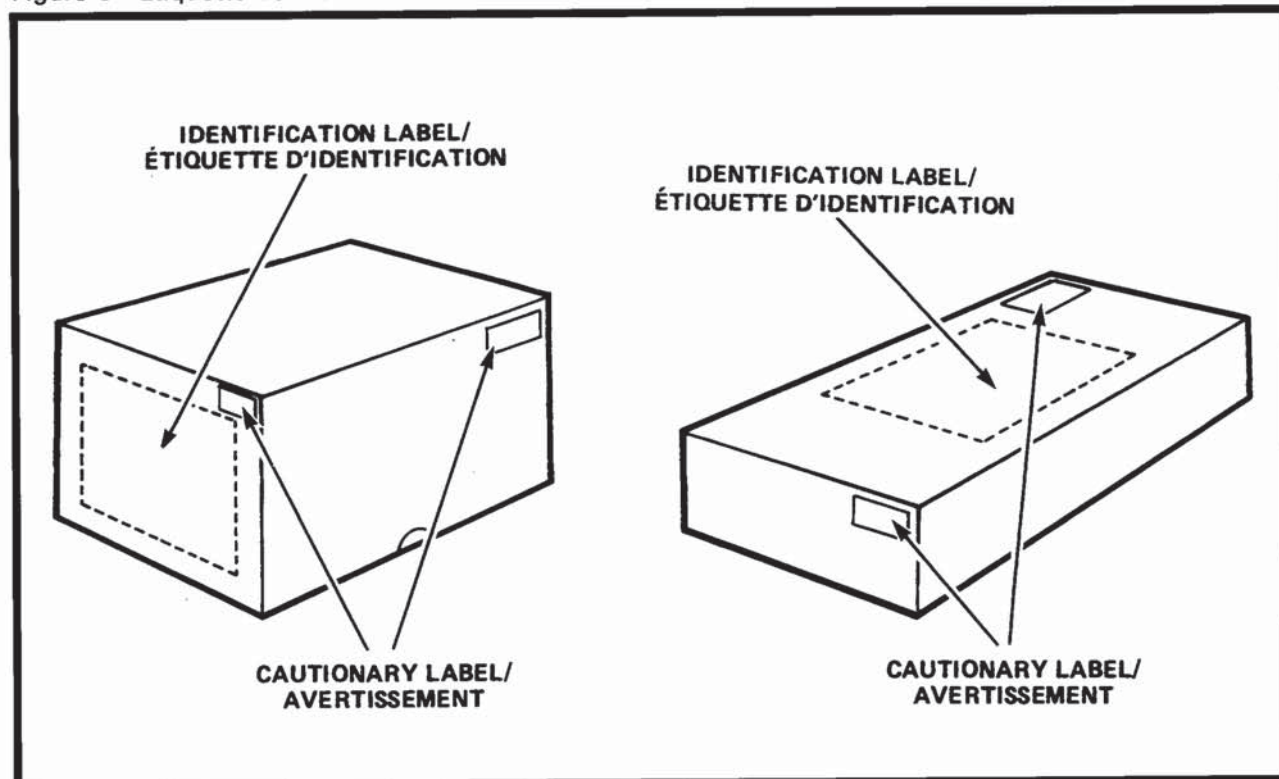


Figure 4 Interior Cartons

Figure 4 Boîtes intérieures

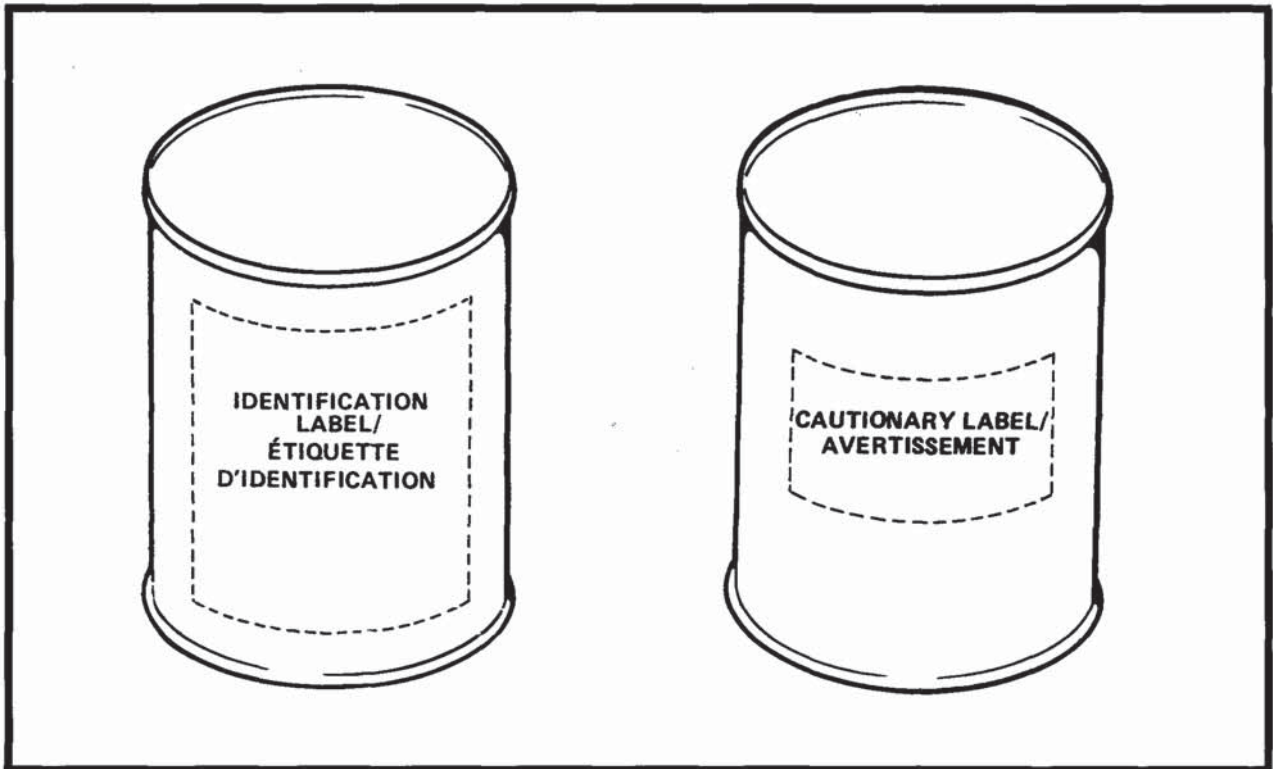


Figure 5 Cans (Interior Packs)

Figure 5 Boîtes de conserve (contenants intérieurs)

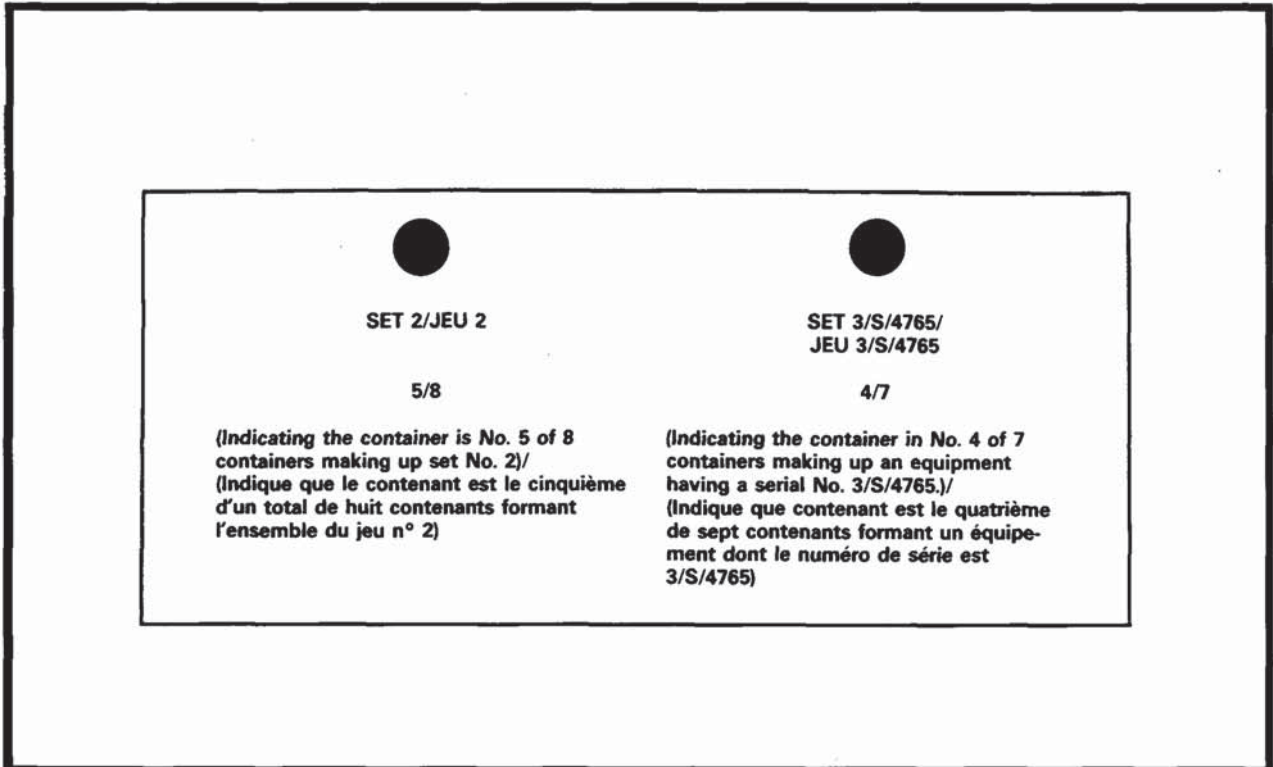


Figure 6 Set or Assembly Markings

Figure 6 Marques de jeu ou d'ensemble

**FRAGILE
HANDLE WITH CARE
FRAGILE
MANIPULEZ AVEC SOIN**



TO INDICATE THAT THE CONTENTS OF THE SHIPPING CONTAINER ARE FRAGILE AND THAT IT HAS TO BE HANDLED WITH CARE. SYMBOL TO BE LOCATED NEAR THE UPPER LEFT HAND CORNER OF THE SHIPPING CONTAINER.

SERT À INDIQUER QUE LE CONTENANT RENFERME DES MARCHANDISES FRAGILES ET QU'IL FAUT, PAR CONSÉQUENT, LE MANIPULER AVEC SOIN. LE SYMBOLE DOIT ÊTRE PLACÉ DANS LE COIN SUPÉRIEUR GAUCHE DU CONTENANT.

**USE NO HOOKS
MANIEZ
SANS CRAMpons**



TO INDICATE THAT HOOKS ARE PROHIBITED FOR LIFTING THE SHIPPING CONTAINER.

SERT À INDIQUER QU'IL NE FAUT PAS SOULEVER LE CONTENANT À L'AIDE DE CRAMpons.

**THIS WAY UP
CETTE FACE
EN HAUT**



TO INDICATE THE CORRECT UPRIGHT POSITION OF THE SHIPPING CONTAINER.

SERT À INDIQUER QUE, DANS LA POSITION INDICQUÉE PAR LES FLÈCHES, LE CONTENANT EST À L'ENDROIT.

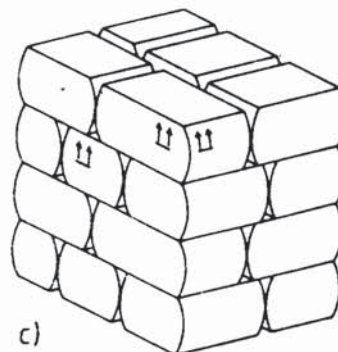
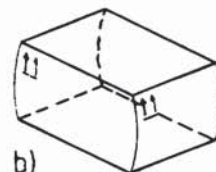
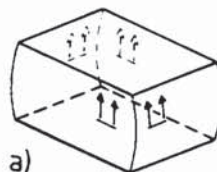


Figure 7 (Sheet 1 of 4) Handling and Cautionary Markings

Figure 7 (Page 1 de 4) Margues de manutention et d'avertissement

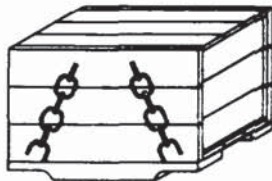
**KEEP AWAY
FROM HEAT
ÉVITER SOURCE
DE CHALEUR**



TO INDICATE THAT THE SHIPPING CONTAINER SHALL BE KEPT AWAY FROM HEAT.

SERT À INDiquer QU'IL FAUT SE GARDER DE DÉPOSER LE CONTENANT PRÈS D'UNE SOURCE DE CHALEUR.

**SLING HERE
ATTACHER ICI**



TO INDICATE WHERE THE SLINGS ARE TO BE PLACED FOR LIFTING THE SHIPPING CONTAINER. SYMBOL TO BE SHOWN ON AT LEAST TWO OPPOSITE FACES.

SERT À INDiquer OÙ PLACER LES ATTACHES POUR SOULEVER LE CONTENANT. LE SYMBOLE DOIT FIGURER SUR AU MOINS DEUX FACES OPPOSÉES DU CONTENANT.

**KEEP DRY
GARDER AU SEC**



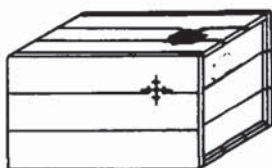
TO INDICATE THAT THE SHIPPING CONTAINER SHALL BE KEPT IN A DRY ENVIRONMENT.

SERT À INDiquer QUE LE CONTENANT D'EXPÉDITION DOIT ÊTRE GARDÉ DANS UN ENDROIT SEC.

Figure 7 (Sheet 2 of 4) Handling and Cautionary Markings

Figure 7 (Page 2 de 4) Margues de manutention et d'avertissement

**CENTRE OF GRAVITY
CENTRE DE GRAVITÉ**



TO INDICATE THE CENTRE OF GRAVITY OF THE SHIPPING CONTAINER. THE SYMBOL TO BE PLACED ON ALL NORMALLY UPRIGHT SIDES, AND SHALL BE APPLIED IN THE CORRECT POSITION IN ORDER TO ENSURE THE MEANING IS UNDERSTOOD. REQUIRED ON ALL SHIPPING CONTAINERS OVER 3.0M OR ANY CONTAINER WHICH IS UNBALANCED.

SERT À INDiquer LE CENTRE DE GRAVITÉ DU CONTENANT D'EXPÉDITION. LE SYMBOLE DOIT ÊTRE APPOSÉ SUR TOUS LES CÔTÉS DU CONTENANT, EN POSITION DEBOUT NORMALE, ET AU BON ENDROIT SUR CHAQUE FACE AFIN QUE LE SYMBOLE SOIT BIEN COMPRIS. INDiquer CE SYMBOLE SUR TOUS LES CONTENANTS DE PLUS DE 3.0 M OU SUR TOUS LES CONTENANTS QUI NE SONT PAS ÉQUILIBRÉS.

**DO NOT ROLL
NE PAS ROULER**



TO INDICATE THAT THE SHIPPING CONTAINER SHALL NOT BE ROLLED.

SERT À INDiquer QUE LE CONTENANT NE DOIT PAS ÊTRE ROULÉ.

**NO HAND TRUCK HERE
PAS DE CHARIOT
DE CE CÔTÉ**



TO INDICATE WHERE HAND TRUCKS OR DOLLIES SHALL NOT BE PLACED WHEN HANDLING THE SHIPPING CONTAINER.

SERT À INDiquer À QUEL ENDROIT NE PAS PLACER LE DIABLE OU LE CHARIOT POUR DÉPLACER LE CONTENANT.

Figure 7 (Sheet 3 of 4) Handling and Cautionary Markings

Figure 7 (Page 3 de 4) Margues de manutention et d'avertissement



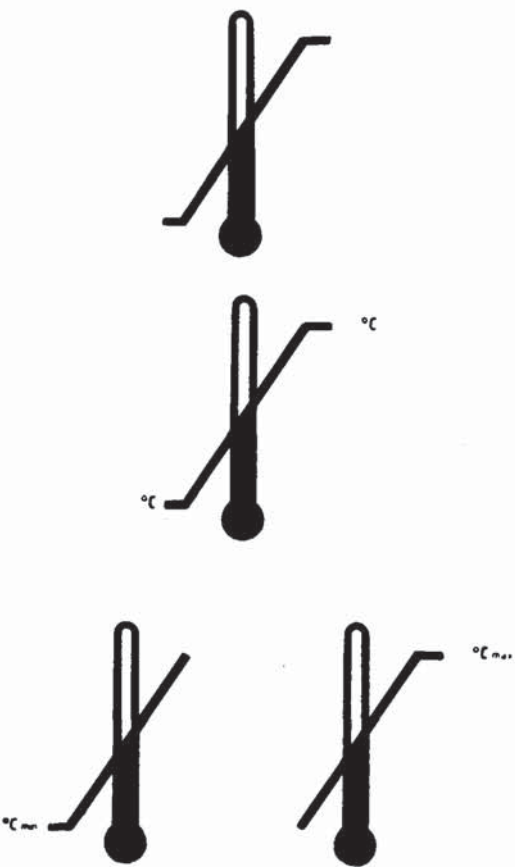
<p>STACKING LIMITATION LIMITE D'EMPILAGE</p> 	<p>TO INDICATE THE LIMITED STACKING POSSIBILITIES OF THE SHIPPING CONTAINERS.</p> <p>SERT À INDiquer LA LIMITE D'EMPILAGE QUE LES CONTENANTS PEUVENT SUPPORTER.</p>
<p>CLAMP HERE METTRE SERRES ICI</p> 	<p>TO INDICATE WHERE CLAMPS SHALL BE PLACED FOR HANDLING THE SHIPPING CONTAINER.</p> <p>SERT À INDiquer OÙ METTRE LES SERRES POUR MANIPULER LE CONTENANT.</p>
<p>TEMPERATURE LIMITATIONS LIMITES DE TEMPÉRATURE</p> 	<p>TO INDICATE THE TEMPERATURE LIMITATIONS WITHIN WHICH THE SHIPPING CONTAINER SHALL BE KEPT AND HANDLED.</p> <p>SERT À INDiquer LES LIMITES DE TEMPÉRATURE À OBSERVER POUR L'ENTREPOSAGE ET LE TRANSPORT DU CONTENANT.</p>

Figure 7 (Sheet 4 of 4) Handling and Cautionary Markings

Figure 7 (Page 4 de 4) Margues de manutention et d'avertissement

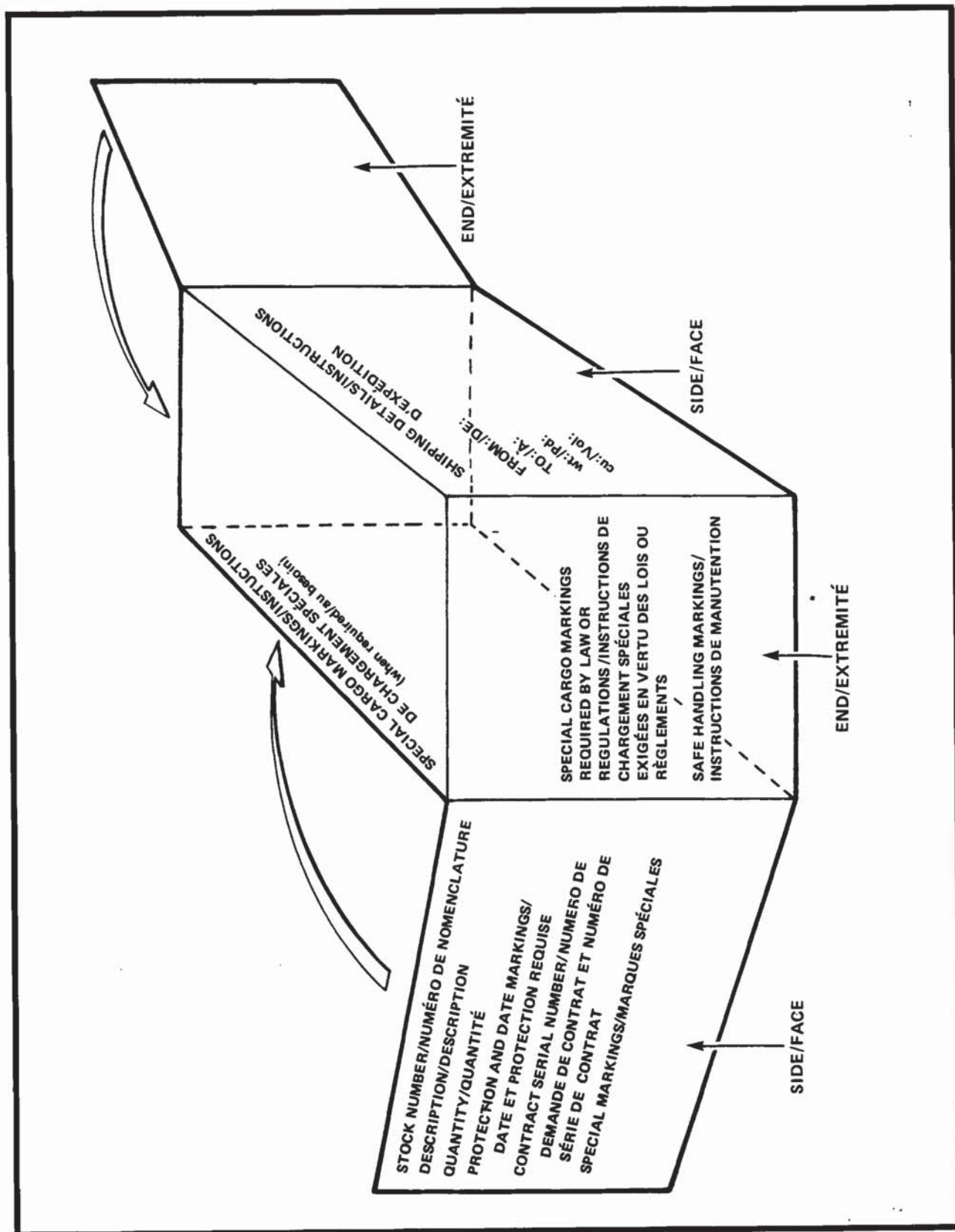


Figure 8 Shipping Container Markings — Volume under 0.28 m³ (10 cu ft)

Figure 8 Marquage des contenants d'expédition de moins de 0,28m³ (10 pi³)

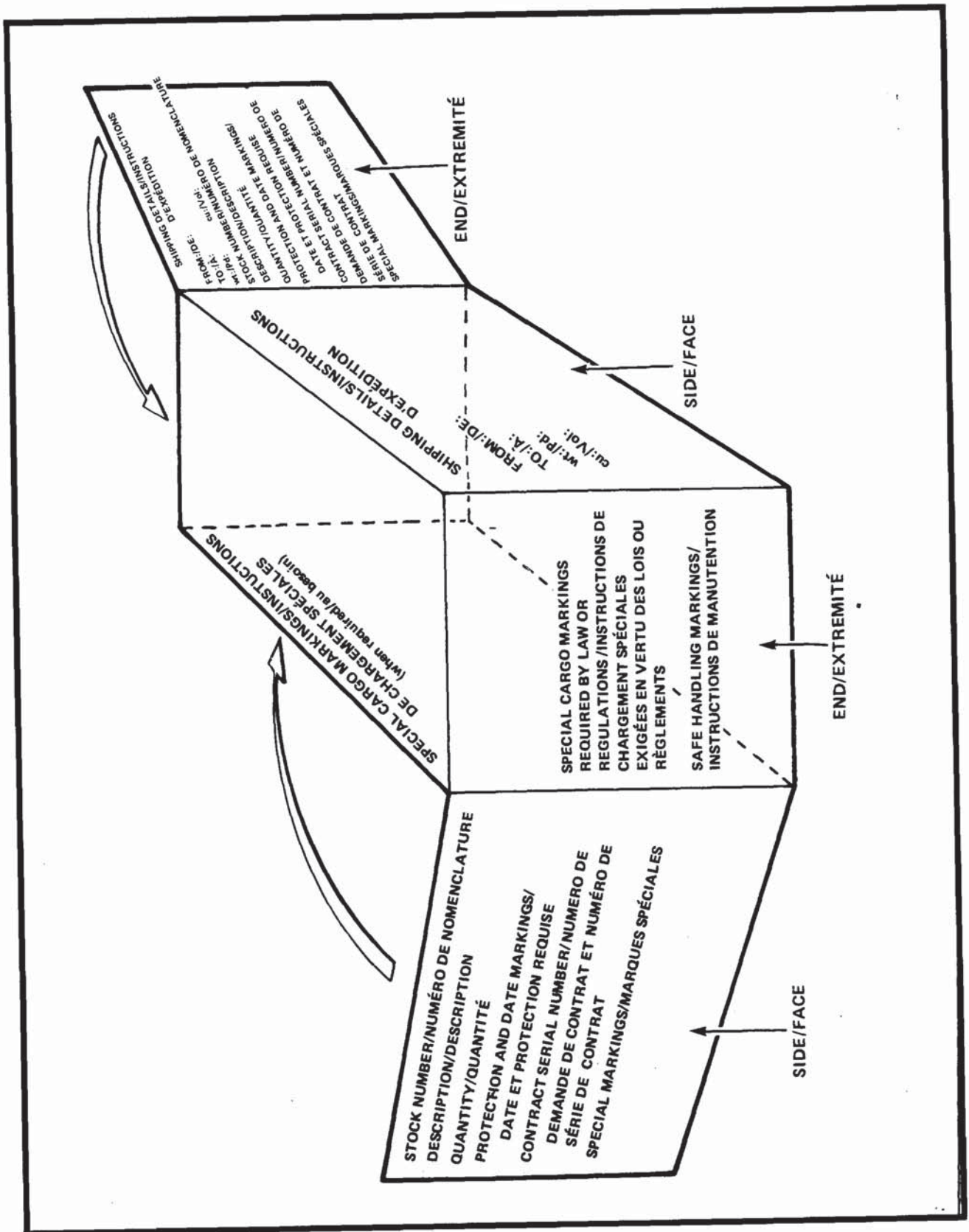
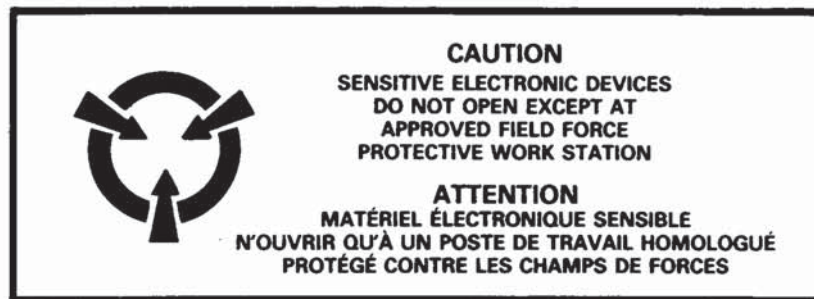


Figure 9 Shipping Container Markings — Volume over 0.28 m³ (10 cu ft)
 Figure 9 Marquage des contenants d'expédition de 0,28 m³ (10 pi³) et plus



SENSITIVE ELECTRONIC DEVICE UNIT PACK LABEL.

**ÉTIQUETTE APPOSÉE SUR UN EMBALLAGE UNITAIRE
RENFERMANT DU MATÉRIEL ÉLECTRONIQUE SENSIBLE.**



SENSITIVE ELECTRONIC DEVICE CAUTION LABEL (INTERMEDIATE AND EXTERIOR PACKS).

**ÉTIQUETTE APPOSÉE SUR LES EMBALLAGES INTERMÉDIAIRES
ET EXTÉRIEURS RENFERMANT DU MATÉRIEL ÉLECTRONIQUE SENSIBLE.**

Figure 10 Sensitive Electronic Device Caution Label

Figure 10 Étiquette d'avertissement — Matériel électronique sensible

TERM	CODE	TERME	CODE
Ampoule	AM	Ampoule	AM
Assembly	AY	Anneau	HK
Assortment	AT	Assortiment	AT
Bag	BG	Balle	BA
Bale	BE	Ballot	BE
Ball	BA	Bande	SP
Bar	BR	Baril	DR
Barrel	BL	Barre	BR
Board Feet	BF	Baton	SX
Bolt	BO	Bidon	TI
Book	BK	Bobine	CL
Bottle	BT	Bobine	RL
Box	BX	Boisseau (Impérial)	BM
Bundle	BD	Boite	BX
Bushel, Imperial (2219.23 cu in)	BM	Bonbonne	CB
Cake	CK	Boulon	BO
Can	CN	Bouteille	BT
Carboy	CB	Brasse	FM
Cubic Yard	CD	Cannette	CN
Cartridge	CA	Cartouche	CA
Centigramme	CG	Cent	HD
Centimetre	CM	Centimètre	CM
Coil	CL	Centimètre Cube	CC
Cone	CE	Centigramme	CG
Container	CO	Chacun	EA
Cubic Centimetre	CC	Chopine (Impérial)	PI
Cubic Foot	CF	Chopine (Américaine)	PT
Cubic Inch	CI	Cone	CE
Cubic Metre	CZ	Conteneur	CO
Cylinder	CY	Cylindre	CY
Decagramme	DC	Décagramme	DC
Decigramme	DG	Décigramme	DG

TERM	CODE	TERME	CODE
Decilitre	DL	Décilitre	DL
Decimetre	DE	Décimètre	DE
Dozen	DZ	Dévidoir	SL
Drum	DR	Douzaine	DZ
Each	EA	Écheveau	SK
Fathom	FM	Emballage	PG
Foot	FT	Ensemble	SE
Gallon, Imperial	GB	Équipement	OT
Gallon, US	GL	Feuille	SH
Grain	GN	Fiole	VI
Gramme	GM	Gallon (Impérial)	GB
Gross	GR	Gallon (Américain)	GL
Group	GP	Grain	GN
Hank	HK	Gramme	GM
Hundred	HD	Grosse	GR
Hundredweight, Imperial (112 lb)	HI	Group	GP
Inch	IN	Jarre	JR
Jar	JR	Kilogramme	KG
Kilogramme	KG	Kilomètre	LM
Kilometre	KM	Litre	LI
Kit	KT	Livre	BK
Length	LG	Longueur	LG
Litre	LI	Mètre	MR
Long Ton (2240 lb)	LT	Microgramme	MC
Meal	ME	Mille	MX
Metre	MR	Milligramme	MG
Microgramme	MC	Millilitre	ML
Milligramme	MG	Millimètre	MM
Millilitre	ML	Once	OZ
Millimetre	MM	Once Troy	TO
Ounce	OZ	Pain	CK
Outfit	OT	Paire	PR
Package	PG	Patin	SD

TERM	CODE	TERME	CODE
Packet	PZ	Paquet	BD
Pad	PD	Paquet	PZ
Pair	PR	Pied	FT
Phial (see Vial)	VI	Pied Carré	SF
Pint, Imperial	PI	Pied Cube	CF
Pint, US	PT	Pied Planche	BF
Plate	PM	Plaque	PM
Pound	LB	Pinte (Impériale)	QI
Quart, Imperial	QI	Pinte (Américaine)	QT
Quart, US	QT	Pouce	IN
Ration	RA	Pouce Carré	SI
Ream	RM	Pouce Cube	CI
Roll	RO	Projectilé	SO
Reel	RL	Quintal (Impériale)	HI
Set	SE	Rame	RM
Sheet	SH	Ration	RA
Shot	SO	Repas	ME
Skein	SK	Rouleau	RO
Skid	SD	Sac	BG
Spool	SL	Tampon	PD
Square Foot	SF	Tonneau	BL
Square Inch	SI	Tonne	TN
Square Yard	SY	Tonne Métrique	TM
Short Ton	ST	Tonne Torte	LT
Stick	SX	Trousse	KT
Strip	SP	Tube	TU
Thousand	MX	Verge	YD
Tin	TI	Verge Carrée	SY
Ton (2000 lb)	TN	Verge Cube	CD
Ton, Metric (2204.6 lb)	TM		
Troy Ounce	TO		
Tube	TU		

TERM	CODE	TERME	CODE
Vial (see Phial)	VI		
Yard	YD		
(b) Miscellaneous abbreviations. Miscellaneous abbreviations are as follows:		(b) Abréviations diverses. Les abréviations employées sont les suivantes:	
Aircraft on ground	AOG	Aéronef au sol	AOG
Bill of Lading	B/L	Connaissance	B/L
Catalogue	CAT	Catalogue	CAT
Supply and Services Canada	SSC	Approvisionnements et Services Canada SSC	
Dimensions	DIM	Dimensions	DIM
Engine	ENG	Moteur	ENG
Express	EXP	Express	EXP
Federal Stock Number	FSN	Numéro de nomenclature fédéral	FSN
Financial Encumbrance	FE/EF	Consignation de fonds	FE/EF
Freight	FRT	Fret	FRT
Government Bill of Lading	GBL	Connaissance du gouvernement ÉTAT	CONN
Hi Value	HV	Valeur élevée	HV
Invoice	INV	Facture	INV
Less than carload	LCL	Chargement partiel (wagon)	LCL
Less than truckload	LTL	Chargement partiel (camion)	LTL
Manufactured	MFD	Fabriqué	MFD
Mark	MK	Marque	MK
NATO Stock Number	NSN	Numéro de nomenclature de l'OTAN	NNO
Net Weight	Net/WT	Poids net	NET/WT
Number	NO	Numéro	NO
Ocean Bill of Lading	OBL	Connaissance maritime	OBL
Parcel Post	PP	Colis postal	PP
Prepaid	PPD	Port payé	PPD
Station	STN	Station	STN
Tare Weight	T/WT	Poids à vide	T/WT
Urgent Repair Requirement	URR	Réparation requise d'urgence	URR

TERM	CODE	TERME	CODE
(c) Provinces. Provinces are abbreviated as follows:		(c) Provinces. Les abréviations employées sont les suivantes:	
Province of British Columbia	BC	Colombie-Britannique	BC
Province of Alberta	AB	Alberta	AB
Province of Saskatchewan	SK	Saskatchewan	SK
Province of Manitoba	MB	Manitoba	MB
Province of Ontario	ON	Ontario	ON
Province of Quebec	PQ or QC	Québec	PQ/QC
Province of New Brunswick	NB	Nouveau-Brunswick	NB
Province of Nova Scotia	NS	Nouvelle-Écosse	NS
Province of Prince Edward Island	PE	Île-du-Prince-Édouard	PE
Province of Newfoundland	NF	Terre-Neuve	NF
Yukon Territory	YT	Yukon	YT
North West Territory	NT	Territoires du Nord-Ouest	NT

20. GUIDE TO CONTRACT IDENTIFICATION MARKINGS

20.1 Scope. This appendix shows an example of contract serial numbers which must be given to meet the requirements of 3.7.1(e) and 3.11.1(a)v.

20. GUIDE DES MARQUES D'IDENTIFICATION DES CONTRATS

20.1 Portée. Cette appendice présente un exemple des numéros qui doivent être donnés pour que soient satisfaites les exigences des paragraphes 3.7.1(e) et 3.11.1(a)v.

Figure 11 Contract Identification Markings
Figure 11 Marques d'identification d'un contrat

30. STANDARD SYMBOLOGY FOR BAR CODING

30.1 Scope. The purpose of this standard is to define the standard symbology for marking unit packs, outer containers, and selected documents by means of bar coding.

30.2 Application. The standard symbology shall be used whenever bar code marking/reading operations are employed within logistics operations.

30.3 Definitions. For the purpose of this publication:

bar
means a single dark element of a bar code;

bar code
means an array of rectangular marks and spaces in a predetermined pattern;

bar width
means the perpendicular distance across a bar measured from a point on one edge to the opposite edge; each edge will be defined as having a reflectance that is 50 per cent of the difference between the lighter background and the bar reflectances;

bearer bar
means a rectangular bar pattern circumscribing the bar code, particularly a bar code directly printed on corrugated fibre-board;

bidirectional code
means a bar code format which permits reading in complementary (opposite) directions across the bars and spaces;

binary
pertains to a characteristic or property involving a selection, choice, or condition in which there are two possibilities;

binary code
means a code which makes use of exactly two distinct characters, usually 0 and 1;

30. CODE À BATONNETS STANDARD

30.1 Portée. Cette appendice présente les normes de marquage des contenants unitaires, des contenants extérieurs et de certains documents au moyen du code à bâtonnets standard.

30.2 Domaines d'application. Le code à bâtonnets standard doit être utilisé dans les opérations de logistique.

30.3 Définitions. Les principaux termes utilisés dans cette publication sont définis ci-dessous:

bâtonnet
élément foncé d'un code à bâtonnets;

code à bâtonnets
ensemble rectangulaire de traits et d'espaces placés d'une manière ordonnée;

largeur d'un bâtonnet
plus petite dimension d'un bâtonnet, mesurée transversalement d'un point d'une bordure à un point de la bordure opposée; chaque bordure doit avoir une réflectance égale à 50% de la différence entre la réflectance du fond (plus pâle) et celle du bâtonnet;

cadre
élément rectangulaire entourant le code à bâtonnets, particulièrement quand celui-ci est imprimé directement sur du carton ondulé;

code bidirectionnel
code à bâtonnets dont la lecture peut se faire dans les deux sens;

binaire
se dit d'une caractéristique ou d'une propriété d'un choix ou d'un état offrant deux possibilités;

code binaire
code faisant appel à deux caractères distincts, généralement 0 et 1;

certificate of conformance (COC)

means contractors signed certification that the supplies provided to the government (under contract) comply with stated contract requirements and specifications; the COC does not waive the government's right to inspect supplies under other inspection provisions of a contract;

character

means a letter, digit, or other special form that is used as part of the organization, control, or representation of data and is often in the form of a spatial arrangement of adjacent or connected strokes;

characters per inch (CPI)

means the number of bar coded characters that are displayed in each inch of bar code;

character set

means those characters which are available for encoding within the bar code;

code density

means the number of characters that can appear per unit of length, normally expressed in characters per inch;

discrete code

means a bar code in which the intercharacter gap is not part of the code and is allowed to vary dimensionally within wide tolerance limits;

element

means a generic term used to refer to either a bar or a space;

human readable interpretation (HRI)

means the exact interpretation of the encoded bar code data presented in a human-readable font;

intercharacter gap

means the space between the last element of one character and the first element of the adjacent character of a discrete bar code;

margin (quiet zone)

means the area immediately preceding the start character and following the stop character which contains no markings, and provides the same reflectance as the spaces;

certificat de conformité

certificat signé par l'entrepreneur dans lequel celui-ci atteste que les fournitures remises à l'État (en vertu d'un contrat) sont conformes aux exigences et aux spécifications du marché; le certificat de conformité ne limite en rien le droit qu'a l'État d'inspecter les fournitures en vertu d'autres clauses d'un marché;

caractère

lettre, chiffre ou autre symbole utilisé dans l'organisation, le contrôle ou la représentation des données; un caractère est souvent composé de traits adjacents ou liés;

caractères au pouce (C/po)

dans un code à bâtonnets, nombre de caractères représentés au pouce;

ensemble de caractères

caractères susceptibles d'être représentés par un code à bâtonnets;

densité de codes

nombre de caractères par unité de longueur, normalement au pouce;

code discret

code à bâtonnets dans lequel l'intervalle entre les caractères ne fait pas partie du code et peut varier considérablement;

élément

terme générique qui peut aussi bien désigner un bâtonnet qu'un espace;

interprétation en clair

interprétation exacte des données d'un code à bâtonnets présentées avec une police intelligible;

intervalle

espace compris entre le dernier élément d'un caractère et le premier élément du caractère adjacent d'un code discret;

marge

espace blanc qui précède immédiatement le caractère de départ et qui suit le caractère d'arrêt, dont la réflectance est égale à celle des espaces;

message

means the string of characters encoded in a bar code;

print contrast signal (PCS)

means a measure of the contrast between bars and spaces of a symbol which is based on reflection measurements at a specific wave length of light;

standard NATO bar code symbology (SNS)

means the 3-of-9 bar code with a human-readable interpretation (HRI); the 3-of-9 code is defined in terms of size, density, contrast, and code pattern and is also referred to as code 39 or code 3-of-9;

self-checking bar code

means a bar code which uses a checking algorithm which can be applied against each character to guard against undetected errors;

space

means the lighter element of a bar code;

space width

means perpendicular distance across a space measured from a point on edge of bar to a point on the opposite bar;

start and stop characters

means distinct characters represented by an asterisk(*) used at the beginning and end of each 3-of-9 bar code which provides initial timing references and direction of read information to the coding logic; the asterisk start and stop code is an integral part of and peculiar to 3-of-9 bar code;

symbol

means a complete bar code containing margins, start character, data characters, check digit, if any, and stop character; and

unit size

means the bar width of the narrow element (the narrow bar and the narrow space are equal in the 3-of-9 bar code) where the width is referred to as the X dimension.

message

suite de caractères codés avec des bâtonnets;

signal de contraste d'impression

moyen de mesure du contraste entre les bâtonnets et les espaces d'un symbole qui repose sur des mesures de réflexion à une lumière de longueur d'onde précise;

code à bâtonnets standard

code à bâtonnets 3/9 à interprétation en clair; le code 3/9 (ou 39) a une taille, une densité, un contraste et une structure fixes;

code à bâtonnets d'auto-contrôle

code à bâtonnets dans lequel un algorithme de contrôle peut être appliqué à chaque caractère pour déceler des erreurs;

espace

élément pâle d'un code à bâtonnets;

largeur d'un espace

distance mesurée perpendiculairement entre un point de la bordure d'un bâtonnet et un point de la bordure d'un bâtonnet adjacent;

caractères de départ et d'arrêt

caractères représentés par un astérisque [*] qu'on utilise au début et à la fin de chaque code à bâtonnets 3/9 pour donner à la logique de codage des indications de synchronisation et de direction de lecture; le code d'astérisque fait partie intégrante du code à bâtonnets 3/9 et il en est un élément caractéristique;

symbole

code à bâtonnets complet comprenant des marges, un caractère de départ, des caractères de données, un chiffre de contrôle dans certains cas et un caractère d'arrêt; et

taille de l'unité

largeur d'un élément mince (le bâtonnet mince et l'espace mince ont une largeur égale dans un code 3/9); la largeur est appelée la dimension X.

APPENDIX 3

30.2 General requirements

30.2.1 Code description. The 3-of-9 code is a variable length, discrete, self-checking, bidirectional, alphanumeric bar code. Its character set contains 43 characters 0-9, A-Z, -, ., \$, /, +, %, and space. Each character is composed of 9 elements, five bars and four spaces. Three of the nine elements are wide (binary value 1) and six elements are narrow (binary value 0). A common character (*) is used for both start and stop delimiters. Figure 13 presents the code symbology for the 3-of-9 bar code characters.

30.2.2 Code configuration. A message shall consist of a number of 3-of-9 bar code data character symbols enclosed between start/stop code characters, with the corresponding HRI characters. An example of a 3-of-9 message containing the string **ABC** is shown at Figure 12.

30.2.3 Human-readable interpretation. The human-readable interpretation of the 3-of-9 bar code shall represent only the encoded characters. The HRI is intended to be used only for human recognition and is not intended to be machine readable. For example, a NATO stock number normally would be marked 5840-21-703-9285. However, when bar coded only the 13 digits are to be encoded and the HRI will be marked 5840217039285. Note that the start and stop asterisks shall be suppressed when marking the HRI (see Figure 15). The shapes and sizes of the characters can be in any easily read font and are to be a minimum of 2.39 mm (0.094 in.) in height. The HRI may be marked above, beside or preferably below the bar code.

30.3 Print requirements

30.3.1 Reflectivity and contrast. Print requirements for reflectivity and contrast are as follows:

(a) **Reflectivity.** The maximum allowable reflectivity of the dark base is related to the reflectivity of the light spaces. Bar code symbols with spaces that are less reflective will require bars that are darker (less reflective). The minimum space reflectance shall be 25 per cent for bar code symbols with narrow bar widths equal to or greater than 0.508 mm (0.020 in.). The minimum space reflectance shall be 50 per cent for bar code symbols with narrow bar widths less than 0.508 mm (0.020 in.). The following

30.2 Exigences générales.

30.2.1 Description du code. Le code 3/9 est un code à bâtonnets de longueur variable, discret, autocorrecteur, bidirectionnel et alphanumérique. Il comprend en tout 43 caractères (0 à 9, A à Z, -, ., \$, /, +, % et espace). Chaque caractère est formé de neuf éléments: cinq bâtonnets et quatre espaces. Trois des neuf éléments sont larges (valeur binaire 1) et six, minces (valeur binaire 0). Un caractère commun (*) est utilisé comme symbole de départ et d'arrêt. La figure 13 présente la configuration des caractères d'un code de type 3/9.

30.2.2 Configuration des codes. Un message est formé de symboles représentant des données et compris entre un code de départ et un code d'arrêt; il est toujours accompagné d'une interprétation en clair. La figure 12 présente un exemple de code 3/9 dans lequel le message est **ABC**.

30.2.3 Interprétation en clair. L'interprétation en clair d'un code 3/9 ne doit représenter que les caractères codés. Elle a uniquement pour objet d'aider l'utilisateur à comprendre le message et elle n'est pas compréhensible par une machine. Par exemple, un numéro de nomenclature OTAN s'écrit normalement 5840-21-703-9285. Quand il est codé, toutefois, seuls les 13 chiffres sont codés, et l'interprétation en clair devient 5840217039285. On remarquera que les astérisques de départ et d'arrêt sont omises dans l'interprétation en clair (voir la figure 15). La forme et la taille des caractères importent peu, pourvu que les caractères soient faciles à lire et qu'ils fassent au moins 2,39 mm (0,094 po) de hauteur. L'interprétation en clair doit figurer de préférence sous le code à bâtonnets, mais elle peut également être placée au-dessus ou à côté du code.

30.3 Exigences relatives à l'impression

30.3.1 Réflectance et contraste. Les exigences d'impression qui concernent la réflectance et le contraste sont exposées ci-dessous:

(a) **Réflectance.** La réflectance maximale admissible des éléments foncés dépend de la réflectance des espaces pâles. Les symboles d'un code à bâtonnets dont les espaces ont une faible réflectance supposent des bâtonnets plus foncés (moins réfléchissants). La réflectance minimale des espaces doit être de 25% quand la largeur des bâtonnets minces est égale ou supérieure à 0,508 mm (0,02 po). La réflectance minimale des espaces doit être de 50% quand la largeur des bâtonnets minces est inférieure

illustrates the maximum bar reflections R_b as functions of space reflectance R_w .

à 0,508 mm (0,02 po). Le tableau ci-dessous présente la réflectance maximale des bâtonnets (R_b) en fonction de la réflectance des espaces (R_w).

**ALLOWABLE VALUES OF BAR REFLECTANCE
RÉFLECTANCE ADMISSIBLE DES BÂTONNETS**

SPACE REFLECTANCE RÉFLECTANCE DES ESPACES	BÂTONNETS	MAXIMUM BAR REFLECTANCE RÉFLECTANCE MAXIMALE DES
R_w (%)		R_b (%)
25		6.25
30		7.50
35		8.75
40		10.00
45		11.25
50		12.50
55		13.75
60		15.00
65		16.25
70		17.50
75		18.75
80		20.00
85		21.25
90		22.50
95		23.75
100		25.00

In the above table, the minimum contrast ratio of R_w and R_b is 4.0 and the minimum Print Contrast Signal (PCS) is 75 per cent.

Dans le tableau ci-dessus, le ratio de contraste minimal de R_w et R_b est de 4.0, et le signal de contraste d'impression minimal, de 75 %.

(b) **Contrast.** The print contrast signal (PCS) is defined as:

where R_w is the reflectance from the white spaces and R_b is the reflectance from the dark bars. The minimum PCS allowed is 75 per cent.

30.3.2 Code density and dimension. The 3-of-9 bar code can be printed at various densities to accommodate a variety of printing and reading processes. The significant parameters are the nominal width X of the narrow elements and the nominal ratio of wide to narrow elements. The allowable range for the nominal unit size and the nominal wide-to-narrow ratio is as follows:

(b) **Contraste.** Le signal de contraste d'impression s'écrit:

où R_w représente la réflectance des espaces blancs, et R_b la réflectance des bâtonnets foncés. Le signal de contraste d'impression minimal admissible est de 75%.

30.3.2 Densité et dimension des codes. Les codes à bâtonnets 3/9 peuvent être imprimés à diverses densités, compte tenu des méthodes d'impression et de lecture. Les paramètres importants sont la largeur nominale X des éléments minces et le ratio nominal éléments larges/éléments minces. L'intervalle admissible de la taille nominale des unités et du ratio large/mince nominal sont donnés ci-dessous:

- (a) Minimum nominal unit size — 0.112 mm (0.0044 in.) (for special applications).
- (b) Minimum nominal unit size — 0.190 mm (0.0075 in.) for general applications.
- (c) Maximum nominal unit size — 0.508 mm (0.0200 in.) for general applications.
- (d) Maximum nominal unit size — 1.016 mm (0.0400 in.) for special applications.
- (e) Nominal wide-to-narrow ratio:
 - i 2.5:1 to 3.0:1 for codes whose unit size is less than 0.190 mm (0.0075 in.).
 - ii 2.2:1 to 3.0:1 for codes whose unit size is less than 0.381 mm (0.015 in.) and equal to or greater than 0.190 mm (0.0075 in.).
 - iii 2.0:1 to 3.0:1 for codes whose unit size is equal to or more than 0.381 mm (0.015 in.).
 - iv 2.2:1 to 3.0:1 for codes whose unit size is less than 0.508 mm (0.0200 in.).
 - v 2.0:1 to 3.0:1 for codes whose unit size is more than 0.508 mm (0.0200 in.).

30.3.3 Code heights. The bar code height can vary to suit specific reading and marking requirements. The bar code heights shown at Figure 17 shall be used for the corresponding ranges of bar code density. For those applications where these heights are not suitable, height requirements will be as specified by the procuring activity. The corresponding minimum HRI heights are also shown at Figure 17.

30.3.4 Intercharacter gap. The minimum gap between characters is the same as the minimum dimension (X) of a narrow element. The maximum intercharacter gap width shall be three times the width of a narrow element (3X) (see Figure 12).

30.3.5 Margins (quiet zones). The minimum left and right margins shall be 10 times the width of one narrow element (10X) or 6.35 mm (0.25 in.) whichever is greater unless otherwise specified.

- (a) Taille nominale minimale des unités — 0,112 mm (0,0044 po): applications spéciales.
- (b) Taille nominale minimale des unités — 0,190 mm (0,075 po): applications générales.
- (c) Taille nominale minimale des unités — 0,508 mm (0,02 po): applications générales.
- (d) Taille nominale minimale des unités — 1,016 mm (0,04 po): applications spéciales.
- (e) Ratio large/mince, nominal:
 - i 2,5:1 à 3,0:1 dans le cas des codes dont la taille de l'unité est inférieure à 0,190 mm (0,0075 po).
 - ii 2,2:1 à 3,0:1 dans le cas des codes dont la taille de l'unité est inférieure à 0,381 mm (0,015 po) et égale ou supérieure à 0,190 mm (0,0075 po).
 - iii 2,0:1 à 3,0:1 dans le cas des codes dont la taille de l'unité est égale ou supérieure à 0,381 mm (0,015 po).
 - iv 2,2:1 à 3,0:1 dans le cas des codes dont la taille de l'unité est inférieure à 0,508 mm (0,02 po).
 - v 2,0:1 à 3,0:1 dans le cas des codes dont la taille de l'unité est supérieure à 0,508 mm (0,02 po).

30.3.3 Hauteur des codes. La hauteur d'un code à bâtonnets dépend des conditions de lecture et de marquage. Les hauteurs indiquées à la figure 17 seront utilisées avec les intervalles correspondants de densité de code. Dans les situations où ces hauteurs ne conviennent pas, on se conformera aux exigences des responsables de l'acquisition. La hauteur minimale de l'interprétation en clair est également indiquée à la figure 17.

30.3.4 Intervalle entre les caractères. L'intervalle minimal entre les caractères est égal à la dimension minimale (X) de l'élément mince. L'intervalle maximal entre les caractères est égal à trois fois la largeur de l'élément mince (3X) (voir la figure 12).

30.3.5 Marges. À moins d'indication contraire, les marges de gauche et de droite doivent faire au moins dix fois la largeur d'un élément mince (10X) ou 6,35 mm (0,25 po), la valeur la plus élevée étant à retenir.

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30.3.6 Spacing between bar code and HRI. The minimum spacing between the bar code and the HRI shall be a minimum of 0.25 mm (0.01 in.) and a maximum of 6.35 mm (0.25 in.).

30.3.7 Spacing between edge of label and HRI. The minimum spacing between the horizontal edge of the label and the HRI shall be 1.588 mm (0.0625 in.).

30.3.8 Spacing recommendations for SDS message formats. The following spacing requirements apply unless otherwise specified:

(a) When SDS messages are in an over-and-under configuration (stacked), the message shall have a minimum separation of 9.53 mm (0.375 in.) and a maximum separation of 19.05 mm (0.75 in.) from bar code to bar code (see Figure 16).

(b) The spacing between two separately coded SDS messages on the same line shall have a minimum separation of 12.7 mm (0.5 in.) (see Figure 16).

30.3.9 Bar code tolerances. Bar code tolerances are reached as follows:

(a) **Measuring tolerance.** The width of printed bars and spaces can be measured with an optical comparator using reflected light incident at 30° to 45° from a normal to the printed surface. A magnification of 50X is recommended although with some loss of accuracy, 20X may be used. Printed bar codes with reasonably smooth bar edges are easily measured by visually averaging the edge roughness over a linear reticle on the comparator screen.

(b) **Calculation tolerance.** The allowable printing with tolerance t is a function of the nominal width x and the nominal ratio n of wide to narrow. This tolerance is defined as:

$$t = \pm \left(\frac{4}{27} \right) \left(n - \frac{2}{3} \right) x$$

Note: The value of n shall be in the allowable range of 2 to 3. Figure 14 shows the tolerances for the various commonly used nominal dimensions.

30.3.6 Espacement entre le code à bâtonnets et l'interprétation en clair. L'espacement entre le code à bâtonnets et l'interprétation en clair doit être d'au moins 0,25 mm (0,01 po) et d'au plus 6,35 mm (0,25 po).

30.3.7 Espacement entre la bordure de l'étiquette et l'interprétation en clair. L'espacement entre la bordure horizontale de l'étiquette et l'interprétation en clair doit être d'au moins 1,588 mm (0,0625 po).

30.3.8 Espacement recommandé dans le cas des messages en codes à bâtonnets standard. À moins d'indication contraire, on veillera à se conformer aux exigences suivantes:

(a) Lorsque des messages codés sont superposés, l'intervalle entre les codes à bâtonnets doit être d'au moins 9,53 mm (0,375 po) et d'au plus 19,05 mm (0,75 po) (voir la figure 16).

(b) Deux messages codés sur une même ligne doivent être séparés par un intervalle d'au moins 12,7 mm (0,5 po) (voir la figure 16).

30.3.9 Tolérance. Les tolérances relatives aux codes à bâtonnets peuvent être établies comme suit:

(a) **Mesure de la tolérance.** La largeur des bâtonnets et des espaces peut être mesurée avec un comparateur optique et une lumière réfléchi sur une surface imprimée à un angle de 30° à 45° par rapport à la normale. Un grossissement de 50X est recommandé, mais on pourra aussi recourir à un grossissement de 20X, même si la précision sera dans ce cas moins grande. On pourra mesurer facilement les codes à bâtonnets dont la bordure est raisonnablement lisse en faisant visuellement la moyenne des inégalités à l'aide du réticule de l'écran du comparateur.

(b) **Calcul des tolérances.** La tolérance d'impression admissible t est fonction de la largeur nominale x et du ratio nominal n (bâtonnets larges/bâtonnets minces). Cette tolérance s'écrit:

$$t = \pm \left(\frac{4}{27} \right) \left(n - \frac{2}{3} \right) x$$

Nota: La valeur de n doit se situer entre 2 et 3. La figure 14 présente les tolérances de diverses dimensions nominales couramment utilisées.

30.3.10 Spots, voids and bar edge roughness. Spots, voids, and bar edge roughness are considered as follows:

(a) **General.** A major advantage of the 3-of-9 bar code is that it can be correctly read in spite of localized printing defects. A defect of sufficient magnitude may cause a wand scanner not to read if the scanning line passes directly through the defect. However, a subsequent scan through a nondefective area of the bar code will typically result in a good read.

(b) **Edge roughness.** Edge roughness is included in the bar and space width tolerances. The white to black and black to white transition points are determined where the apparent reflectance of a circle with a diameter 0.8 times the nominal width of a narrow element is halfway between the reflectances of the bar and space reflectance values.

(c) **Spots and voids.** A single spot or void of sufficient magnitude in an individual character code will cause a wand scanner to not read when the scanning line passes directly through the defect. However, two independent defects occurring along the same scan within the same character code could produce a substitution error. Such error can only result if a void in a wide bar is aligned with a spot on a narrow bar within the same character code. Spots and voids which meet either of the following criteria are permitted:

- i The spot or void can be contained within a circle whose diameter is 0.4 times the nominal width of the narrow element.
- ii The spot or void occupies no more than 25 per cent of the area of a circle whose diameter is 0.8 times the nominal width of the narrow element. Larger spots or voids can be expected to reduce the first read rate depending on their size.

30.4 Application of markings

30.4.1 Marking of interior and shipping containers shall be as follows:

(a) The words NATO Stock Number, Nomenclature, Quantity and Protection and Date Markings, shall not be made a part of the markings.

30.3.10 Taches, blancs et inégalités des bordures:

(a) **Généralités.** Le principal avantage du code à bâtonnets 3/9 est qu'il peut être lu correctement même s'il présente quelques défauts d'impression. Si un défaut est suffisamment important, le crayon-lecteur ne saisit pas le bâtonnet si le faisceau de lecture passe directement sur l'imperfection. Toutefois, une lecture subséquente sur une partie sans imperfection du bâtonnet donne généralement de bons résultats.

(b) **Inégalités des bordures.** Les inégalités des bordures doivent entrer dans la largeur admissible des bâtonnets et des espaces. Les points de transition blanc-noir et noir-blanc se trouvent à l'endroit où la réflectance apparente d'un cercle dont le diamètre fait de 0 à 8 fois la largeur nominale d'un élément mince se trouve à mi-chemin entre la réflectance des bâtonnets et celle des espaces.

(c) **Taches et blancs.** Le caractère qui comporte une tache ou un blanc suffisamment important ne sera pas lu par le crayon-lecteur si le faisceau de lecture passe directement sur l'imperfection. Il se pourrait toutefois que deux imperfections indépendantes d'un même code de caractère produisent une erreur de substitution. Ces erreurs ne peuvent s'observer que si un blanc d'un bâtonnet large est aligné sur une tache d'un bâtonnet mince du même code de caractère. Les taches et les blancs qui satisfont aux exigences suivantes sont admissibles:

- i La tache ou le blanc peut être contenu dans un cercle dont le diamètre est égal à 0,4 fois la largeur nominale de l'élément mince.
- ii Le point ou le blanc n'occupe pas plus de 25 % de la superficie d'un cercle dont le diamètre est de 0,8 fois la largeur nominale de l'élément mince. Compte tenu de leur taille, les taches ou les blancs importants contribuent à réduire la proportion des lectures du premier coup.

30.4 Marquage

30.4.1 Marquage des contenants intérieurs et des contenants d'expédition:

(a) Les mentions numéro de nomenclature OTAN, description, quantité et protection et date ne doivent pas être marquées.

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(b) Interior containers shall be marked with the NATO stock number and exterior containers shall be marked with the NATO stock number, contract serial number, quantity and unit of issue, protection-date markings and quality assurance code in the standard bar code symbology described herein. Bar code markings shall be applied as illustrated at Figures 15, 18, 19, 20 or 21.

(c) When no NSN is available, the manufacturer's reference/part number (MFR/PN) shall be used and space shall be left blank immediately above the number for subsequent placement of the NSN. The words MFR/PN shall be used to identify this information.

30.4.2 Exterior container identification markings. The required markings shall be placed so as not to be obscured by cleats and strapping. Arrangement of markings shall be as described and illustrated herein. One end and the top and bottom of containers shall always be free of any markings, unless otherwise specified.

(b) Les contenants intérieurs doivent porter le numéro de nomenclature OTAN, et les contenants extérieurs, le numéro de nomenclature OTAN, le numéro de série du contrat, la quantité et l'unité de distribution, les mesures de protection et la date ainsi que le code d'assurance de la qualité, ces renseignements étant donnés en codes à bâtonnets. Les codes à bâtonnets doivent être appliqués conformément aux indications des figures 15, 18, 19, 20, ou 21.

(c) À défaut de NNO, on indiquera le numéro de référence du fabricant ou le numéro de pièce et on laissera immédiatement au-dessus l'espace voulu pour que le NNO puisse être ajouté ultérieurement. Ces renseignements doivent être accompagnés de la mention numéro de référence du fabricant/numéro de pièce.

30.4.2 Marques d'identification des contenants extérieurs. Les marques d'identification des contenants extérieurs doivent être placées de manière que les attaches et les cerclages ne les cachent pas. Elles seront en outre conformes aux instructions et aux illustrations présentées ici. À moins d'indication contraire, on laissera toujours une extrémité ainsi que le dessus et le dessous des contenants libres de toute marque.

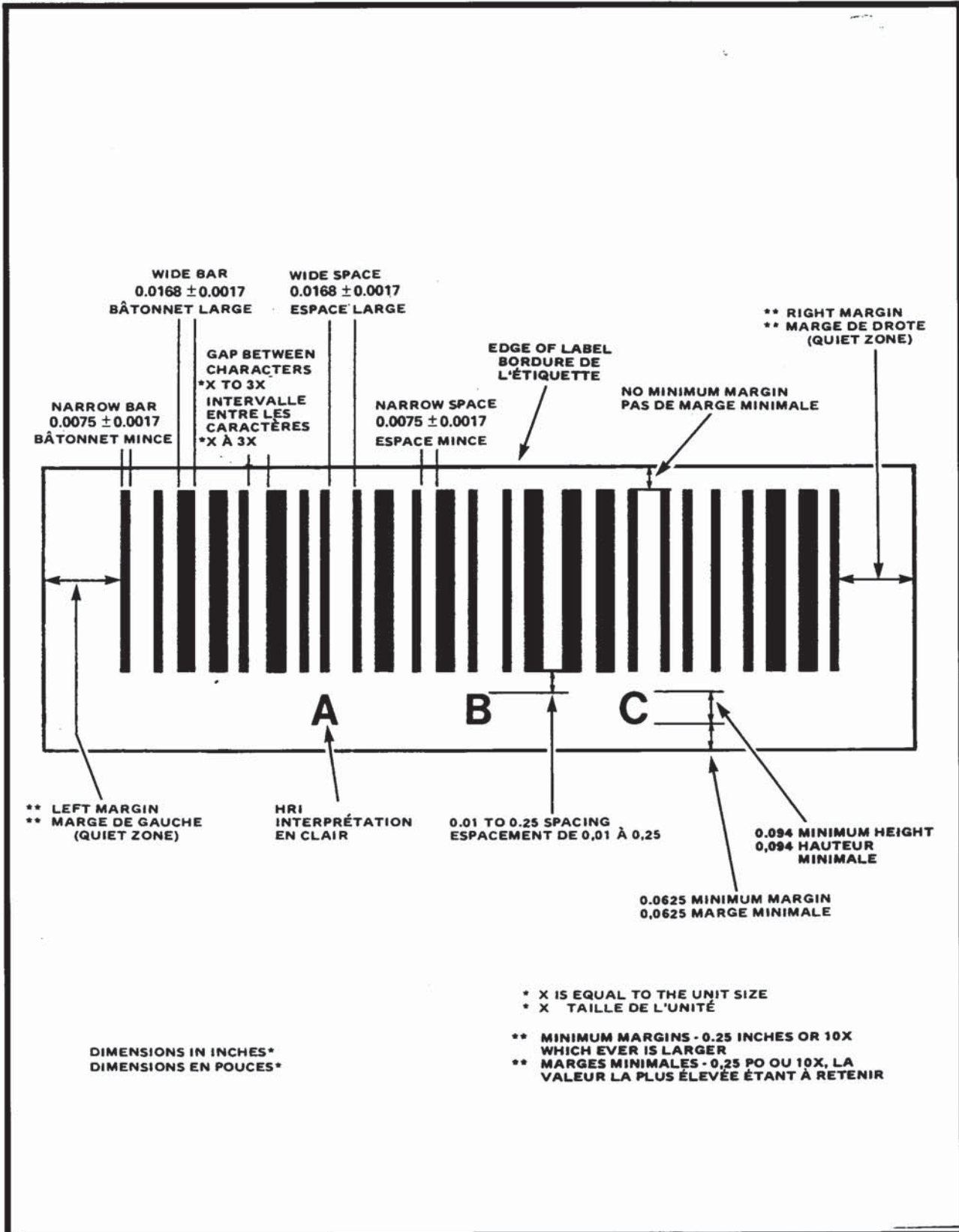


Figure 12 Standard Code, 9.4 Characters per Inch Density (Enlarged)

Figure 12 Code standard — Densité de 9,4 caractères au pouce (agrandissement)

Table I Code Configuration				Tableau I – Configuration de code			
CHAR. CARACTÈRE	PATTERN TRANSCRIPTION CODÉE	BARS BÂTONNETS	SPACES ESPACES	CHAR. CARACTÈRE	PATTERN TRANSCRIPTION CODÉE	BARS BÂTONNETS	SPACES ESPACES
1		10001	0100	M		11000	0001
2		01001	0100	N		00101	0001
3		11000	0100	O		10100	0001
4		00101	0100	P		01100	0001
5		10100	0100	Q		00011	0001
6		01100	0100	R		10010	0001
7		00011	0100	S		01010	0001
8		10010	0100	T		00110	0001
9		01010	0100	U		10001	1000
0		00110	0100	V		01001	1000
A		10001	0010	W		11000	1000
B		01001	0010	X		00101	1000
C		11000	0010	Y		10100	1000
D		00101	0010	Z		01100	1000
E		10100	0010	-		00011	1000
F		01100	0010	.		10010	1000
G		00011	0010	SPACE		01010	1000
H		10010	0010	*		0110	1000
I		01010	0010	\$		00000	1110
J		00110	0010	/		00000	1101
K		10001	0001	+		00000	1011
L		01001	0001	%		00000	0111

NOTE

* Denotes a start/stop code which must precede and follow every bar code message. Note that * is used only for the start/stop code.

NOTA

* indique un code de départ/d'arrêt qui doit précéder et suivre chaque message transmis en code à bâtonnets. Il est à noter que ce signe (*) n'est utilisé que comme code de départ/d'arrêt.

Figure 13 Table of Code Configurations
Figure 13 Tableau des configurations de codes

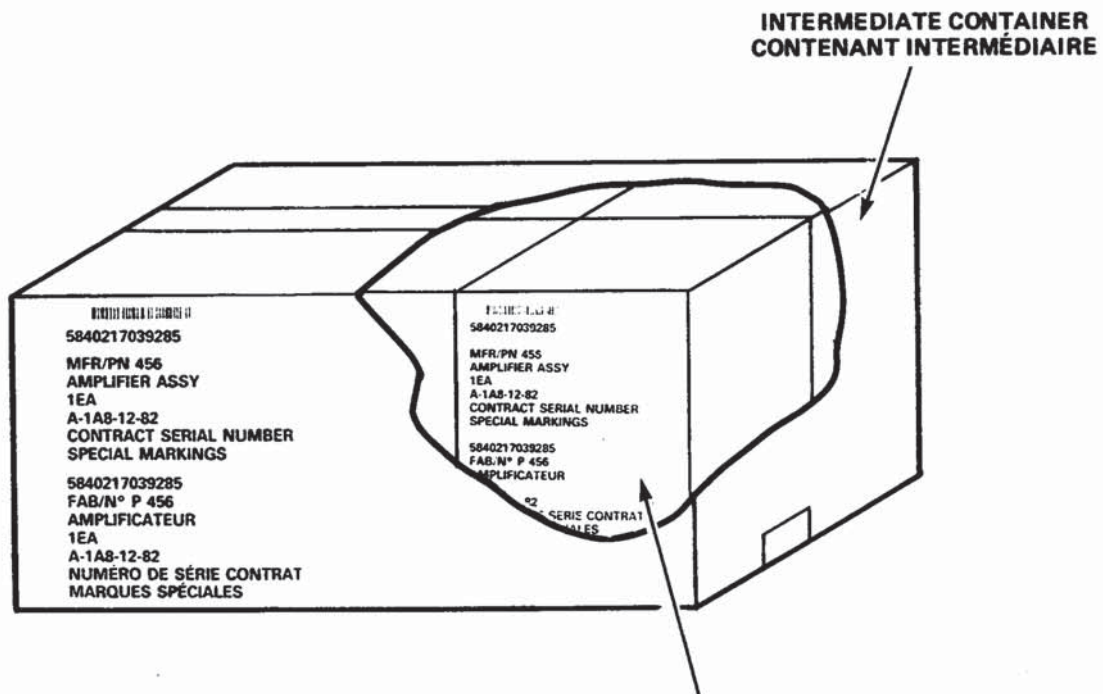
Table II – Tolerances of Common Nominal Dimensions				Tableau II – Tolérances telles qu'elles s'établissent suivant diverses dimensions nominales d'usage courant			
Density CPI	Nominal Width (x) Narrow Elements (mm) (in)		Wide/Narrow Ratio n	Nominal Width (nx) Wide Elements (mm) (in)		Element Tolerance (t) (mm) (in)	
Densité (C/po)	Largeur nominale (x) des éléments minces (mm) (po)		Ratio large/mince (n)	Largeur nominale (nx) des éléments larges (mm) (po)		Tolérance (t) (mm) (po)	
15.5	0.112	0.0044	2.5	0.279	0.0110	0.0012	0.030
12.5	0.140	0.0055	2.5	0.351	0.0138	0.0015	0.038
9.4	0.190	0.0075	2.24	0.427	0.0168	0.0017	0.044
8.6	0.203	0.0080	2.5	0.508	0.0200	0.0022	0.055
7.4	0.254	0.0100	2.2	0.559	0.0220	0.0023	0.058
6.3	0.254	0.0100	3.0	0.762	0.0300	0.0035	0.088
5.7	0.305	0.0120	2.5	0.762	0.0300	0.0033	0.083
5.4	0.292	0.0115	3.0	0.876	0.0345	0.0040	0.101
4.8	0.406	0.0160	2.0	0.813	0.0320	0.0032	0.081
3.9	0.406	0.0160	3.0	1.219	0.0480	0.0055	0.140
3.0	0.533	0.0210	3.0	1.600	0.0630	0.0073	0.184
2.3	0.762	0.0300	2.5	1.905	0.0750	0.0081	0.207
1.7	1.016	0.0400	2.5	2.540	0.1000	0.0109	0.276

Figure 14 Table of Tolerance of Common Nominal Dimensions

Figure 14 Tableau des tolérances pour diverses dimensions nominales d'usage courant



UNIT CONTAINER/CONTENANT UNITAIRE



UNIT CONTAINER/CONTENANT UNITAIRE

Figure 15 Application of Bar Code Markings — Unit Packs and Intermediate Containers

Figure 15 Application des codes à bâtonnets — contenants unitaires et contenants intermédiaires

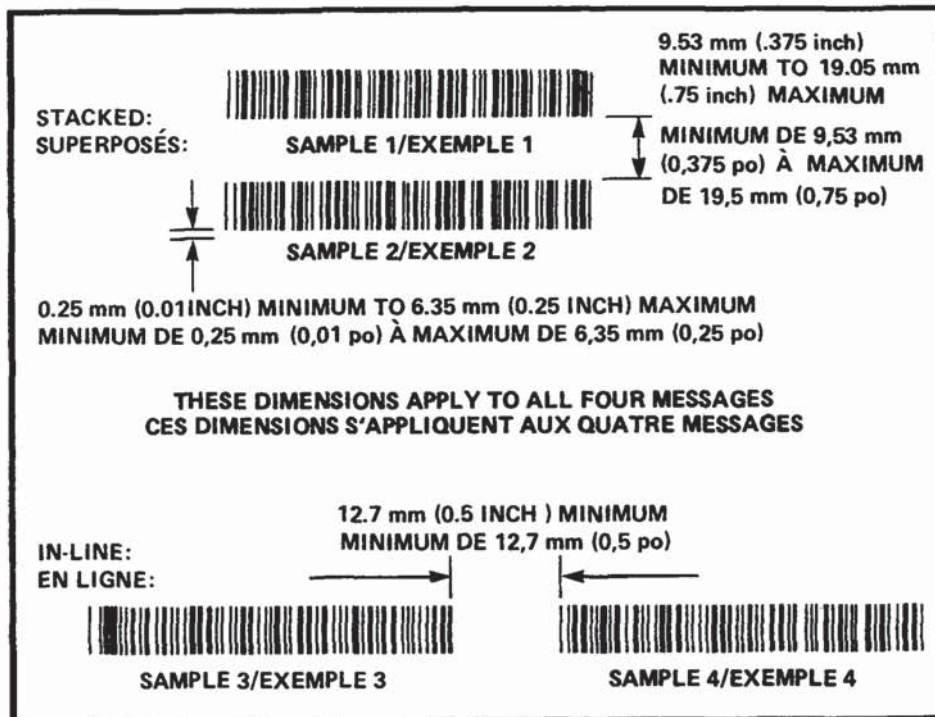
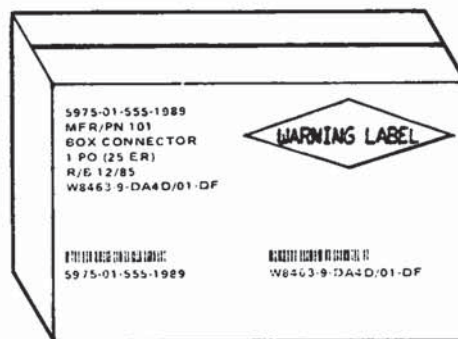
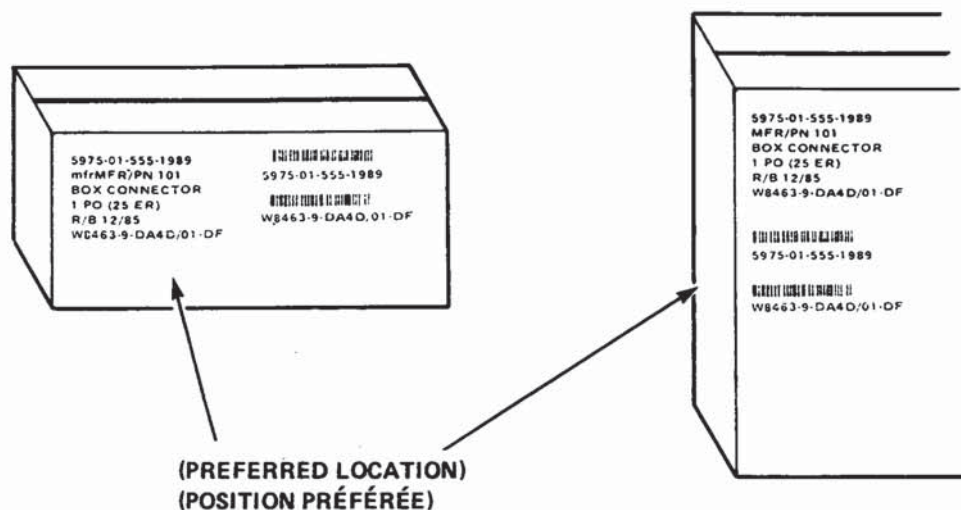


Figure 16 Spacing for Multiple SDS Message Formats
Figure 16 Espacement de messages multiples en codes à bâtonnets standard

A. Bar code and HRI heights for general use. A. Hauteur des codes à bâtonnets et des interprétations en clair — Application générales						
Bar Code Density Range Intervalle de densité des codes à bâtonnets	Bar Code Minimum Height mm in Hauteur minumale des codes à batonnets mm po		Bar Code Maximum Height mm in Hauteur maximale des codes à batonnets mm po		HRI Minimum Height mm in Hauteur minimale de l'interprétation en clair mm po	
$1.7 \leq \text{CPI} < 3.0$	19.05	0.75	31.75	1.25	3.18	.125
$3.0 \leq \text{CPI} < 6.5$	9.53	0.375	22.23	0.875	2.39	.094
$6.5 \leq \text{CPI} \leq 9.4$	6.35	0.25	12.7	0.50	2.39	.094
B. Bar code and HRI heights for special applications. B. Hauteur des codes à bâtonnets et des interprétations en clair — Applications spéciales						
Bar Code Density Range Intervalle de densité des codes à bâtonnets	Bar Code Minimum Height mm in Hauteur minumale des codes à batonnets mm po		Bar Code Maximum Height mm in Hauteur maximale des codes à batonnets mm po		HRI Minimum Height mm in Hauteur minimale de l'interprétation en clair mm po	
$9.4 \leq \text{CPI} \leq 12.5$	3.18	0.125	9.53	0.375	1.60	.063
$12.5 < \text{CPI} \leq 15.5$	1,59	0.0625	6.35	0.250	0.89	.035

Figure 17 Bar Code and HRI Heights

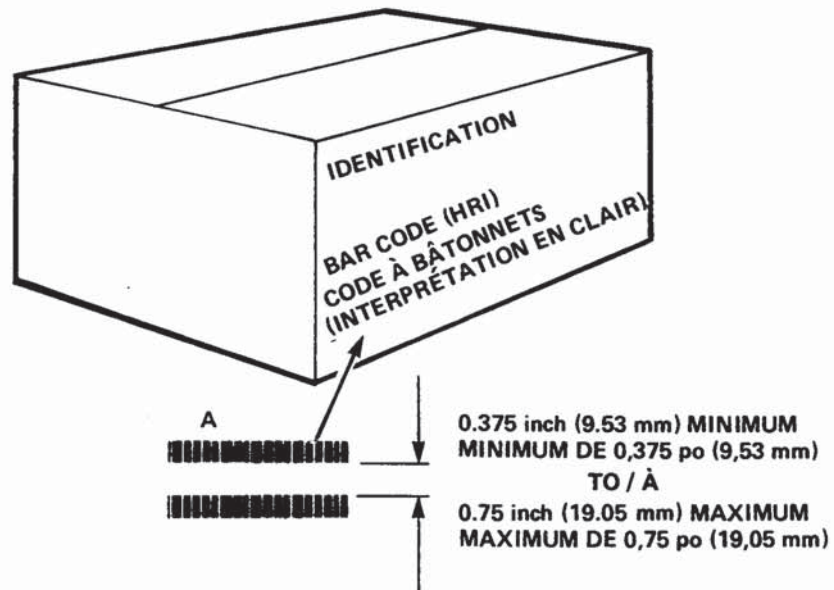
Figure 17 Hauteur des codes à bâtonnets et des interprétations en clair



(OPTIONAL LOCATION)
(POSITION FACULTATIVE)

EXTERIOR CONTAINER
CONTENANT EXTÉRIEUR

Figure 18 Placement of Bar Code Markings — Exterior Containers
Figure 18 Position des codes à bâtonnets — contenants extérieurs



OR / OU

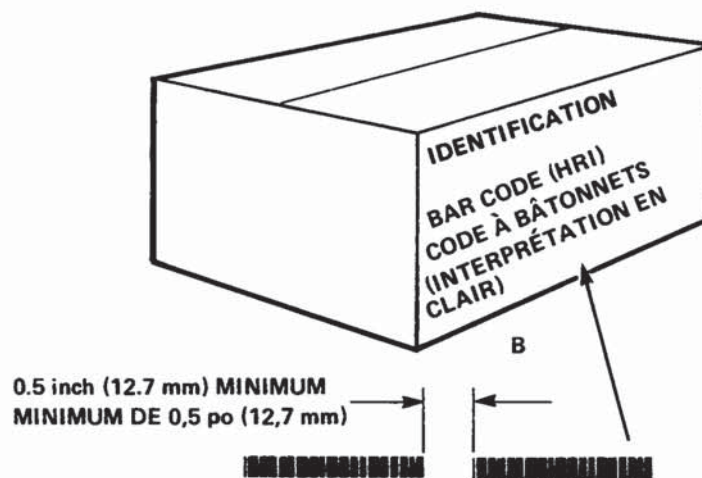
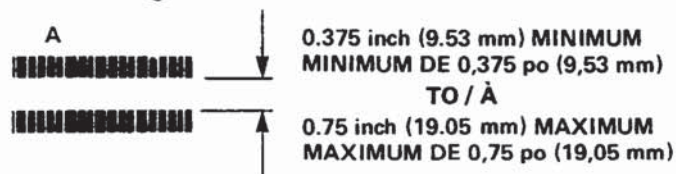
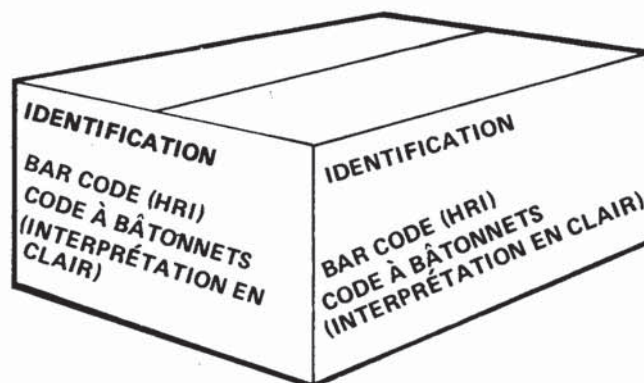
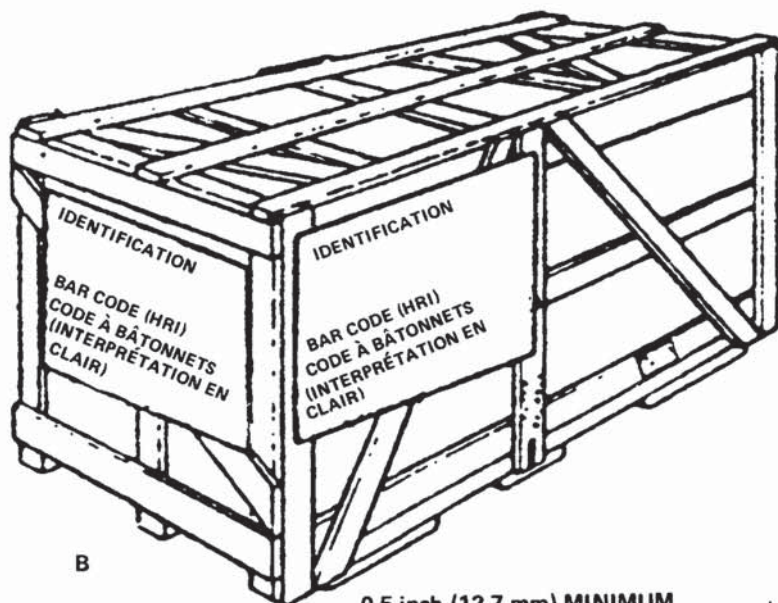


Figure 19 Bar Code Markings for Exterior Shipping Container under 10 Cubic Feet

Figure 19 Codes à bâtonnets des contenants d'expédition extérieurs de moins de 10 pi³



OR / OU



0.5 inch (12.7 mm) MINIMUM
MINIMUM DE 0,5 po (12,7 mm)



Figure 20 Bar Code Markings for Exterior Shipping Containers 10 Cubic Feet and Over
Figure 20 Codes à bâtonnets des contenants d'expédition extérieurs de 10 pi³ et plus

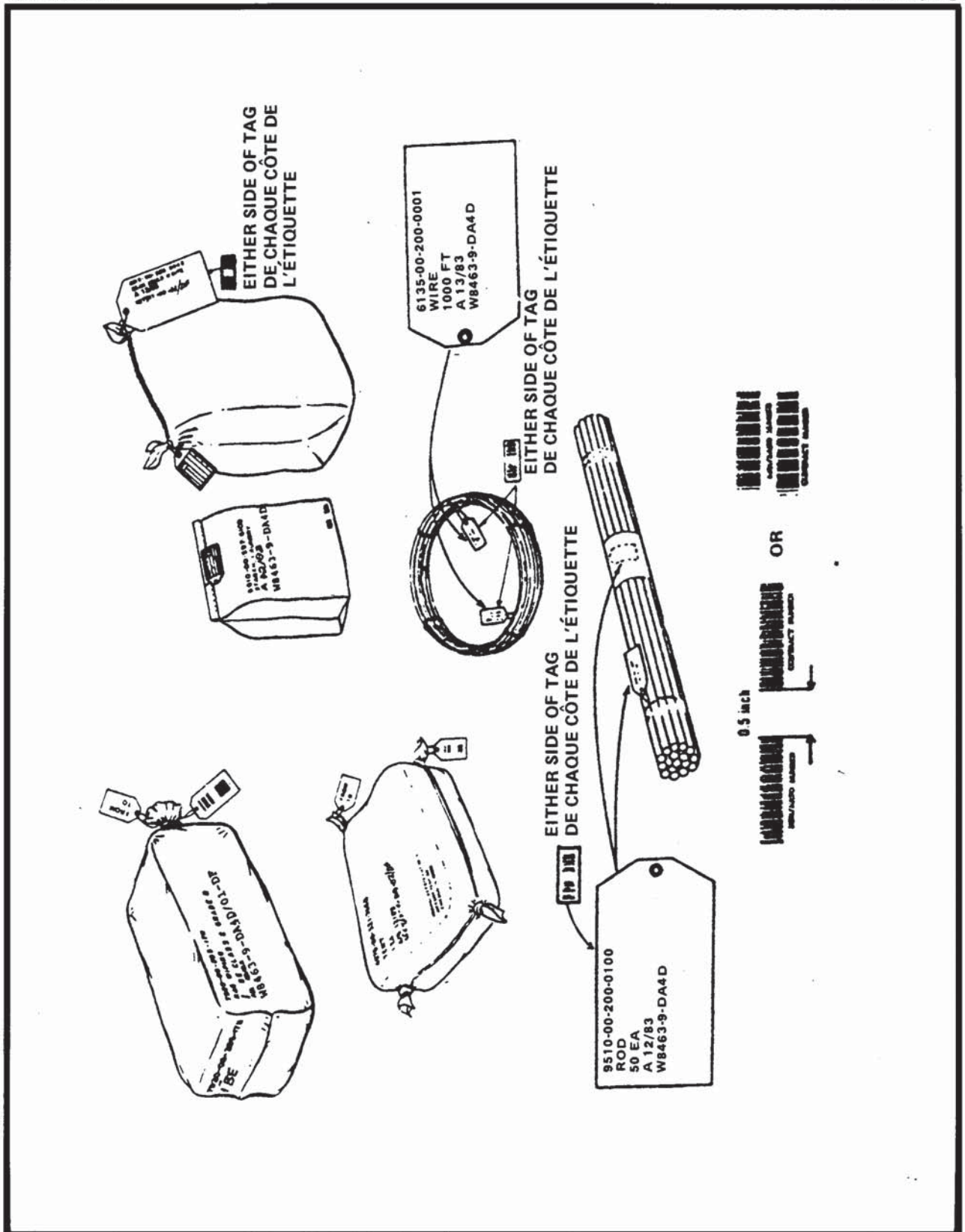


Figure 21 Bar Code Markings on Tags for Miscellaneous Packs and Unpacked Items.

Figure 21 Codes à bâtonnets d'étiquettes de divers emballages et d'articles non emballés

NOTICE:

This document has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.



AVIS:

Ce document a été révisé par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçus à l'origine avec le document continuent de s'appliquer.

APPENDIX B1

DRAFT

QUALITY ENGINEERING TEST ESTABLISHMENT



QETE TEST METHOD 151207

FOR MEASURING THE DRYING TIME OF A SLEEPING BAG LINER



1 SCOPE

1.1 SUBJECT

- 1.1.1 This Test Method defines the requirements for measuring the drying time of a sleeping bag liner by submerging it, then hanging it on a clothesline.

1.2 TERMINOLOGY

- 1.2.1 s. Section. Refers to a numbered section or paragraph in this document or another referenced document.

2 FACILITIES AND EQUIPMENT

- 2.1 The facilities and test equipment required for testing are provided below:

	Facility/Equipment	Requirements
2.1.1	Environmental Conditioning Chamber (climatic chamber)	<p>The Environmental Conditioning Chamber must be capable of:</p> <ul style="list-style-type: none"> - Maintaining 20 ± 2 °C and 65 ± 5 % relative humidity; - An average (30-second mean) chamber airflow of 2 ± 1.5 m/s; and - Airflow uniformity of ± 1.5 m/s from the mean, across the chamber width and height, with instantaneous values not exceeding 5.0 m/s at any point or at any time. <p>The Environmental Conditioning Chamber must be capable of conditioning a closed sleeping bag Hygiene Liner suspended on a clothesline or rack system in accordance with the clothesline requirements below.</p> <p>The size of the Environmental Conditioning Chamber must be large enough to prevent any part of the suspended Hygiene Liner from contacting any part of the chamber walls, floor, ceiling, or door when the chamber is in operation.</p>
2.1.2	Immersion Container	The Immersion Container must be able to contain enough water to immerse the Hygiene Liner to wet its entire surface, without the need to mechanically agitate the water or the Hygiene Liner.
2.1.3	Single Clothesline / Rack System	The Single Clothesline must support the closed Hygiene Liner horizontally along its short axis, at half-length (with the head and foot towards the ground), without the Hygiene Liner bunching or touching the ground, walls, or any other objects or surfaces. The Single Clothesline must be indoors, in the immediate vicinity of the Immersion Container, under ambient conditions of 20 ± 5 °C and 20 to 80 % relative humidity, with no direct wind or forced airflow.



(continued)

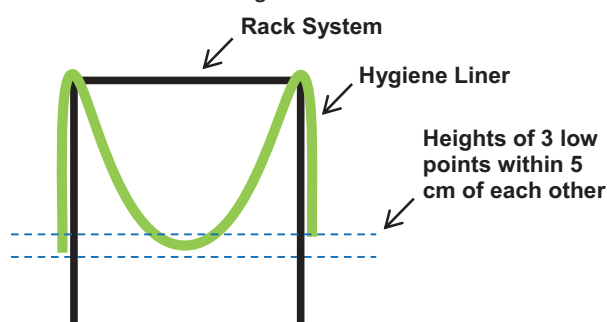
Facility/Equipment

Requirements

2.1.4

Double Clothesline / Rack System

The Double Clothesline must be inside the Environmental Conditioning Chamber. The two support lines must be in the same horizontal plane, 46 cm or more apart, and parallel to the primary chamber circulation airflow. The Double Clothesline must support the closed Hygiene Liner along its short axis in two locations (in an "M" configuration, with the head and foot as the legs of the "M") without the Hygiene Liner bunching or touching itself, or touching the floor, walls, ceiling, or door of the chamber when the chamber is in operation. The Hygiene liner must be positioned on the Double Clothesline such that the three low points of the Hygiene Liner do not differ in height by more than 5 cm, in accordance with the figure below.



2.1.5

Weigh-Scale

Accuracy: ± 0.5 g

2.1.6

Wet-Weighing Vessel

The Wet-Weighing Vessel must be such that it can contain the wetted Hygiene Liner and any dripping during weighing. In preparation for testing, the Wet-Weighing Vessel must be tared on the Weigh-Scale, or its weight must be measured on the Weigh-Scale and recorded. If it has not been tared, the weight of the Wet-Weighing Vessel must be subtracted from the weight of any items measured in the Wet-Weighing Vessel.

2.1.7

Dry-Weighing Vessel

The Dry-Weighing Vessel must be such that it can contain the "dried" Hygiene Liner and any dripping during weighing. In preparation for testing, the Dry-Weighing Vessel must be tared on the Weigh-Scale, or its weight must be measured on the Weigh-Scale and recorded. If it has not been tared, the weight of the Dry-Weighing Vessel must be subtracted from the weight of any items measured in the Dry-Weighing Vessel.

2.1.8

Temperature Sensor(s) and Data Recorder

Accuracy: ± 1 °C
Sample Rates: 1 sample/minute (minimum)

2.1.9

Humidity Sensor(s) and Data Recorder

Accuracy: ± 1 % relative humidity
Sample Rates: 1 sample/minute (minimum)

2.1.10

Air Flow Sensor

Accuracy: ± 3 % full-scale (not to exceed ± 1 m/s)
Sample Rates: Spot check as required by the test procedure



3 TEST PREPARATION

- 3.1 The make, model, part numbers, serial numbers, and calibration information, as applicable, must be documented for each test specimen and all test equipment.
- 3.2 All required test fixtures must be installed as described in s. 2.
- 3.3 The airflow speed within the Environmental Conditioning Chamber must be measured and recorded, within the test tolerances and accuracies described in s. 2. The average speed (30-second mean) must be recorded at a minimum of 3 locations evenly spaced across the Conditioning Chamber's horizontal plane, at 3 different heights evenly spaced across the Conditioning Chamber's vertical plane (for a total of 9 airflow measurements), to provide a survey of the airflow condition in the region where the Hygiene Liner will be installed.
- 3.4 Using a new Hygiene Liner, the Dry Weight (W_{dry}) must be established in accordance with the following procedure:
 - 3.4.1 The Hygiene Liner must be placed on the Double Clothesline as described in s. 2.
 - 3.4.2 The Environmental Conditioning Chamber must then be stabilized at 20 ± 2 °C and 65 ± 5 % relative humidity. The chamber temperature and relative humidity must be recorded in accordance with the accuracy and sample rates identified in s. 2.
 - 3.4.3 The Hygiene Liner must be kept in the above conditions for a minimum of 8 hours after chamber stabilization.
 - 3.4.4 After a minimum of 8 hours, the Hygiene Liner must be removed from the Environmental Conditioning Chamber and immediately placed in a Dry-Weighing Vessel in accordance with s. 2. The Hygiene Liner and Dry-Weighing Vessel must be weighed together 3 times (3 independent measurements) within 5 minutes of removal from the Environmental Conditioning Chamber. The values of these 3 measurements must be recorded, and their average calculated. This average will be identified as the Dry Weight (W_{dry}).

4 TEST PROCEDURE

- 4.1 Using the same Hygiene Liner that was conditioned during the test preparation above, the drying test must be conducted as follows:
 - 4.1.1 The Environmental Conditioning Chamber must be pre-conditioned to 20 ± 2 °C and 65 ± 5 % relative humidity.
 - 4.1.2 An Immersion Container in accordance with s. 2 must be filled with room temperature water (20 ± 2 °C), and the closed Hygiene Liner must be submerged in the water for 5 minutes. All parts of the Hygiene Liner must remain below the water surface for the entire submersion period (mechanical means maybe required to keep the Hygiene Liner submerged, but mechanical agitation must not be employed). The temperature of the water must be measured and recorded.
 - 4.1.3 At the end of the submersion period, the Hygiene Liner must be removed from the water and immediately placed on a Single Clothesline in accordance with s. 2, to allow excess water to drip freely away for 5 minutes. In conducting this step, there must be no manipulation of the Hygiene Liner beyond the actions required to remove it from the Immersion Container and immediately hang it on the Single Clothesline as specified. Likewise, there must be no attempt to extract water from the Hygiene Liner.
 - 4.1.4 When the specified time has elapsed, the Hygiene Liner must be removed from the Single Clothesline and immediately placed in a Wet-Weighing Vessel in accordance with s. 2. The Hygiene Liner and Wet-Weighing Vessel must be weighed together 3 times (3 independent measurements) within 5 minutes of removal from the Single Clothesline. The values of these 3 measurements must be recorded, and their average calculated. This average will be identified as the Initial Wet Weight (W_0).



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- 4.1.5 Within 5 minutes of removal from the Single Clothesline, the closed Hygiene Liner must be placed on a Double Clothesline in accordance with s. 2, with the Environmental Conditioning Chamber at 20 ± 2 °C and 65 ± 5 % relative humidity. The Hygiene Liner must be kept in these conditions for 120 minutes. The chamber temperature and humidity must be recorded in accordance with the accuracy and sample rates identified in s. 2.
- 4.1.6 At 120 minutes, the Hygiene Liner must be removed from the Environmental Conditioning Chamber and immediately placed in a Dry-Weighing Vessel in accordance with s. 2. The Hygiene Liner and Dry-Weighing Vessel must be weighed together 3 times (3 independent measurements) within 5 minutes of removal from the Environmental Conditioning Chamber. The values of these 3 measurements must be recorded, and their average calculated. This average will be identified as the Final Weight (W_{120}).

5 CALCULATION OF RESULTS

- 5.1 The Percent Dry (P_{dry}) value of the Hygiene Liner must be calculated using the following equation, and the results reported:
- 5.1.1
$$P_{dry} = 100 \times [1 - (W_{120} - W_{dry}) / (W_0 - W_{dry})]$$
- 5.1.2 Where:
 W_{dry} = "Dry Weight" when equilibrated in a 20 °C and 65 % relative humidity environment;
 W_0 = Weight at zero minutes of drying (Initial Wet Weight); and
 W_{120} = Weight after 120 minutes of drying (Final Weight).

6 REPORTING REQUIREMENTS

- 6.1 The following data is required from the testing:
- 6.1.1 List of all make, model, part numbers, serial numbers, and calibration information, as applicable, of all test sample(s) and test equipment;
- 6.1.2 Description and photos of all test equipment employed including photos of the clotheslines and Hygiene Liner hanging method used at each stage of the procedure;
- 6.1.3 Time-history temperature data from all chamber thermocouple(s) measured for the entire test period, including any pre-test chamber conditioning time;
- 6.1.4 Time-history relative humidity data from all chamber humidity sensor(s) measured for the entire test period, including any pre-test chamber conditioning time;
- 6.1.5 Chamber air velocity measurements as detailed in the Test Preparation section;
- 6.1.6 Record of the water temperature used during the Hygiene Liner immersion;
- 6.1.7 Record of the ambient laboratory temperature and humidity during post-immersion Hygiene Liner hanging;
- 6.1.8 Record of all individual weight measurements and average weight calculations (W_{dry} , W_0 , W_{120});
- 6.1.9 A time-stamped log and description of steps conducted including and test deviations and any test anomalies that occurred during the test period; and
- 6.1.10 Test and sign-off sheet(s) with names of personnel conducting the testing.