

**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 0A1 / Noyau 0A1  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT**  
**MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**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  
6B1, Place du Portage  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> HOT WEATHER SAFETY BOOTS	
<b>Solicitation No. - N° de l'invitation</b> W8476-123712/A	<b>Amendment No. - N° modif.</b> 007
<b>Client Reference No. - N° de référence du client</b> W8476-123712	<b>Date</b> 2013-02-12
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$PR-707-61565	
<b>File No. - N° de dossier</b> pr707.W8476-123712	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2013-04-02</b>	
<b>Time Zone</b> Fuseau horaire Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Elder, Sylvie	<b>Buyer Id - Id de l'acheteur</b> pr707
<b>Telephone No. - N° de téléphone</b> (819) 956-3830 ( )	<b>FAX No. - N° de FAX</b> (819) 956-3830
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> See Request for Proposal Voir Demande de Proposition	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

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**This amendment is raised to amend Annex B, test method for Moisture Vapour Transmission Rate.**

The Department of National Defence will make the following amendments to the technical data package to support procurement of the Hot Weather Safety Boot (HWSB). This amendment is due to the revision of the test method for Moisture Vapour Transmission Rate (MVTR).

This revision was coordinated by U.S. Army Natick Soldier Systems Centre to better define the apparatus and procedures in order to control variation between laboratories.

This revision of the test method affects **Annex B only**. Numbers of test specimens remains as the left and right boots of two pairs (as stated in Annex B, paragraph 11.3.1).

The mean whole boot MVTR from the two boots of each test pair remains at a minimum of 6.0 grams/hour (as stated in Annex B, paragraph 11.3.2.3). The requirements and frequency of testing remains as outlined in Annex H (Pre-Award), Annex J (Pre-Trial), and Annex C (Production). The point rating for MVTR will remain as stated in Annex D (Bid Evaluation Rated Requirements).

Details of the amendment to **Annex B** are as follows:

" Annex B, paragraph 11.3.2 will be **deleted** in its' entirety and the following paragraphs will be **substituted**:

**11.3 Whole Boot Moisture Vapour Transmission Rate Test.**

11.3.1 **Moisture vapour transmission.** Each boot (left and right) of two (2) pairs of finished boots must be tested in accordance with paragraph 11.3.2. One source of this test is:

Precision Testing Laboratories  
313 Hill Avenue,  
Nashville, Tennessee, USA 37210

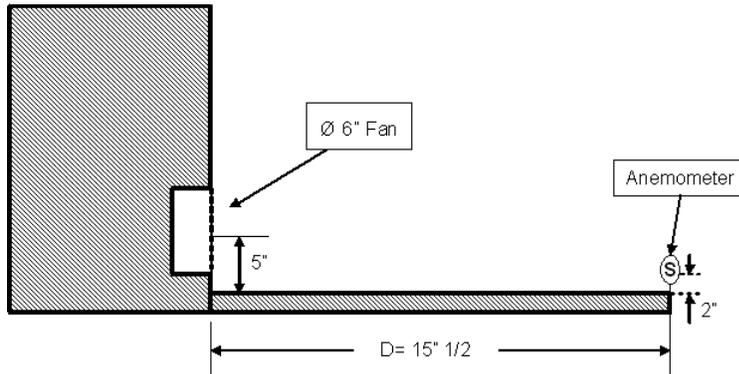
Telephone: (615) 254-3401  
Fax: (615) 254-3488  
Email: vpsales@precisiontesting.com

11.3.2 **Moisture vapour transmission rate (MVTR) test.** The boot breathability test shall be designed to indicate the Moisture Vapour Transmission Rate (MVTR) through the boot by means of a difference in temperature and concentration of moisture vapour between the interior and the exterior environment.

11.3.2.1 Apparatus.

a. The external test environment control system shall be capable of maintaining 23 °C ( $\pm 1$  °C) and 50 percent ( $\pm 2$  percent) relative humidity throughout the test duration;

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- b. The weight scale shall be capable of determining weight of boots filled with water to an accuracy of plus or minus 0.01gram;
- c. The Water Holding Bootie Insert (WHBI) shall be
- Flexible so that it can be inserted into the boot and conform to the interior contours;
  - It must be thin enough so that folds do not create air gaps;
  - In accordance with ASTM E96B (see Note 1), it must have a MVTR value ranging between 920-990 grams/square meter/24 hours; and
  - It must be waterproof so that only moisture vapor contacts the interior of the footwear product rather than liquid water; and
  - After every five (5) uses of the WHBI it will be disposed of and replaced.
- d. The water circulating bath system for the boot shall be capable of controlling the temperature of the water uniformly in the boot to 35 oC ( $\pm 1$  oC) as measured in the toe area of the boot;
- e. The footform assembly used with the water circulating bath system shall have a boot plug oriented 12.5 centimeters (5.0 inches) as measured from the bottom of the plug surface to the inside sole in the heel area;
- f. The boot plug shall be oval shaped measuring 8.9 cm by 6.3 cm (3.5 in by 2.5 in);
- g. The top of the boot shall be sealed to create an impervious barrier to both liquid water and water vapour;
- h. Boots should be laced to the top of the lacing system. Allow for 25.4 mm ( $\pm 12.7$  cm) (1 inch ( $\pm 0.5$  inch)) separation between lateral and medial eyelet stays, with possible exception of the eyelets at the top of boot and boot plug area. Maximize seal security at top of boot;
- i. A stationary 15.2 cm (6.0 in) diameter fan shall be used to create the air current past the boot;
- j. The stationary fan shall be positioned perpendicular to the test surface and be raised so the center of the fan is 12.7 cm (5.0 in) from the test surface;
- k. The air current origin shall be 39.4 cm (15.5 in) from the back heel edge of the boot (D). Refer to Diagram 1;



D= Distance from boot heel edge to fan interface

S= Wind speed at boot heel edge

#### DIAGRAM 1. Whole Boot Breathability Bench-top Set-Up

1. The air current shall be 250 feet/minute ( $\pm 30$  feet/minute) at the heel edge of the boot (S). Measurement shall be taken without the boot assembly in place 5.1 cm (2.0 in) up from the test surface at the fan center.

Note 1: Determine MVTR in accordance with ASTM E96 Method B with either side of the test membrane facing the water. The free stream air velocity shall be 550 ( $\pm 50$ ) feet/minute (fpm) as measured 5.1 cm (2.0 in) above the specimen. The airflow shall be measured at least 5.1 cm (2.0 in) from any other surface. The test shall be run for 24 hours and weight measurements shall be taken at only the start and completion of the test. At the start of the 24-hour test period, the air gap between the water surface and the specimen shall be 19 mm ( $\pm 1.5$  mm) (0.75 inches ( $\pm 0.06$  inches)).

#### 11.3.2.2 Procedure.

- a. Remove the removable cushion insert from the boot sample;
- b. Weigh boot sample and record (this will be the unconditioned weight);
- c. The boot shall be conditioned in the test environment for a minimum of 12 hours before testing;
- d. Insert WHBI and footform assembly into boot opening and fill with water preheated to 35°C ( $\pm 1$  °C) to a height of 12.5 cm (5 in) as measured from the inside sole in the heel area and seal opening with boot plug. The water should be in contact with the bottom of the boot plug;
- e. Regulate water temperature in boot at 35°C ( $\pm 1$  °C);
- f. Disconnect water circulating system and weigh boot assembly and record as  $W_i$ . The water volume in system shall be noted at the time of weighing;

- g. After weighing reconnect water circulating system and maintain the temperature in boot at 35°C (±1° C) for 6 hours (± 5 minutes);
- h. The boot assembly shall be oriented such that the boot sole lies flat on the testing surface with the heel furthest from the fan interface and in line with the center of the stationary fan (see Diagram 2);

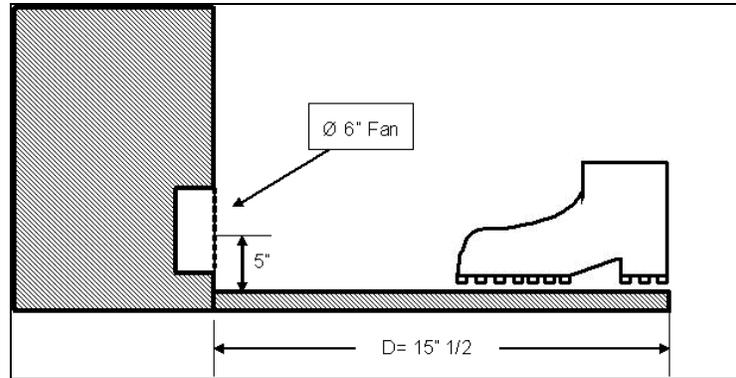


DIAGRAM 2. Whole Boot Breathability Bench-top Set-Up with Boot

- i. After 6 hours (± 5 minutes), reweigh boot assembly. The water volume in system shall match the noted  $W_i$  volume. Record weight as  $W_f$  and test duration as 6 hours;
- j. Compute whole boot MVTR in grams/hour from the equation below:

$$TTVE = \frac{W_i - W_f}{6}$$

- k. If test is aborted for any reason, thoroughly dry boot to within 5 grams of original boot weight (Step b). Recondition boot sample in test environment for the required length as outlined, and begin test procedure again.

11.3.2.3 **Result:** The mean whole boot MVTR from the two boots of each test pair will be a minimum of 6.0 grams/hour.

**All other terms and Conditions will remain the same.**