



**RETURN BIDS TO:**

**RETOURNER LES SOUMISSIONS À:**

Réception des soumissions - TPSGC / Bid Receiving -

PWGSC

Voir dans le document/

See herein

NA

Quebec

NA

## 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.

Title - Sujet CORPS NOIR À CAVITÉ HAUTE TEMPÉRATU		
Solicitation No. - N° de l'invitation W7701-227431/A		Amendment No. - N° modif. 006
Client Reference No. - N° de référence du client W7701-227431		Date 2021-07-28
GETS Reference No. - N° de référence de SEAG PW-\$QCV-025-18188		
File No. - N° de dossier QCV-1-44031 (025)	CCC No./N° CCC - FMS No./N° VME	
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Daylight Saving Time EDT <b>on - le 2021-08-03</b> Heure Avancée de l'Est HAE		
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: Novac, Ioana		Buyer Id - Id de l'acheteur qcv025
Telephone No. - N° de téléphone (438) 355-1366 ( )		FAX No. - N° de FAX ( ) -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:		

**Comments - Commentaires**

**Vendor/Firm Name and Address**

Raison sociale et adresse du fournisseur/de l'entrepreneur

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
<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 (type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
Signature	Date

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File No. - N° du dossier

QCV-1-44031

Id de l'acheteur - Buyer ID

QCV025

N° CCC / CCC No./ N° VME - FMS

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## AMENDMENT 006

### HIGH TEMPERATURE CAVITY BLACK

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Included in the present amendment :

1. Questions and answers
  2. Modification #2 to the bid solicitation
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### QUESTIONS AND ANSWERS

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#### Question 1

We are offering a product which meets and exceeds your specifications except for the Heating Rate requirement. Our product's controller has been programmed to protect against overheating (greater than 1700 °C) and to protect the cavity from thermal transients that can reduce cavity life. The maximum heat rate has been factory set to 20 °C/min.

Would you accept a Black-Body with the following Warm-up Time?

- 45 to 50 min. from ambient to 300°C
- 65 to 80 min. from 300 to 1600°C

#### Answer 1

See below Modification #2 to the bid solicitation.

#### Question 2

Regarding ANNEX A,

##### 4.2 ACCESSORIES

Control software (can be embedded in temperature controller if software is a web application or web interface)

Can you provide clarify what the end user expects the software to do for them. Is it just so they can control the unit remotely from another area?

Our unit doesn't come with a control software;

Our has Digital Self-Tuning PID Controller and also, we provide RS232 with commands;

Please advise if theses would satisfy the end user.

#### Answer 2

Yes. We must be capable to control the operation of the black-body unit remotely from another area.

The control software (or the command set) must be capable of the following:

- give the actual temperature of the black body source when queried
- set the commanded temperature
- Bring the black-body source up to the commanded temperature
- Give the commanded temperature when queried.

If, through the RS232 serial link with your set of commands, we can set the black-body temperature and query both the actual black-body temperature and the commanded set point temperature, this would be an acceptable embedded solution and no software would be required.

#### Question 3

With reference to item M5 of MANDATORY EVALUATION CRITERIA , “ **Temperature variation must be less than 0.33°C over a period of 60 minutes** ” this requirement does not make sense. If you are referring to source non-uniformity, would you please clarify if ±1°C within center 0.33 of internal diameter will be acceptable? Please advise.

#### Answer 3

We are not referring to source non-uniformity here. We have another mandatory evaluation criteria specifically for that (see Temperature uniformity criteria). Once the source has reached

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the commanded temperature, we ask that the temperature of the source remains stable during its operation (stable in time). Ultimately, the temperature (more precisely, the mean temperature over the aperture area) must stay around the commanded temperature by no more than  $\pm 0.33^{\circ}\text{C}$  for a period of 60 minutes. It also must stay around the commanded temperature by no more than  $\pm 1^{\circ}\text{C}$  for a period ranging between 1 and 8 hours.

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#### MODIFICATION #2 OF BID SOLICITATION

ANNEX "A" REQUIREMENT – The table in Section **4.1 Minimum Requirements for High Temperature Cavity Black-body** is amended as follows :

**Delete :**

Heating Rate	Max 60 minutes to reach and stabilize to a temperature of $1000^{\circ}\text{C}$ or less. Max 150 minutes to reach and stabilize to maximum achievable temperature
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**Insert :**

Heating Rate	Max 150 minutes to reach a temperature of $1650^{\circ}\text{C}$ and stabilize.
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ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED