



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

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
Fuel & Construction Products Division
11 Laurier St./11, rue Laurier
7A2, Place du Portage, Phase III
Gatineau, Québec K1A 0S5

| | |
|---|---|
| Title - Sujet INDUCTION HEATING SYSTEM | |
| Solicitation No. - N° de l'invitation 31184-156832/A | Amendment No. - N° modif. 001 |
| Client Reference No. - N° de référence du client 31184-156832 | Date 2016-01-21 |
| GETS Reference No. - N° de référence de SEAG PW-\$\$HL-659-68675 | |
| File No. - N° de dossier hl659.31184-156832 | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-02-01 | |
| Time Zone Fuseau horaire Eastern Standard Time EST | |
| 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: Van Tassel, Stella | Buyer Id - Id de l'acheteur hl659 |
| Telephone No. - N° de téléphone (873) 469-3346 () | FAX No. - N° de FAX () - |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: | |

Instructions: See Herein

Instructions: Voir aux présentes

| | |
|--|--|
| Delivery Required - Livraison exigée | 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 |

Amendment number 001 to Request for Proposal (RFP) 31184-156832/A which closes February 01, 2016 at 2:00 p.m. is raised to:

Respond to questions received from bidders.

Q1- What is the dimensions of heating zone on the turbine blade that they want to heat? Minimum length, maximum length?

A1- The heating zone size varies depending on application. Dimensions range from 4 cm to 20 cm in length.

Q2- What is the cross section of the blade? What is the approximate width x length and minimum / maximum variations?

A2- Cross sections vary depending on whether solid, tubular or cruciform sections are being heated. Solid sections up to 10mm × 25mm (rectangular), 4 to 10mm diameter (solid rounds), lengths 20 to 50 mm. Tubular round sections 10 to 60mm diameter, lengths 20 to 200mm, wall thicknesses 1 to 3mm. Cruciform sections from 100×100mm up to 150×150mm, section thickness varies from 1 to 10mm.

Q3- What is the mass (g? kg?) of the segment that they want to heat?

A3- Heated pieces vary from 30g to 1500g.

Q4- What range of coils they would like to connect? How many coils will cover the physical size of the load and their needs?

A4- Heating coils vary in design depending on part geometry to be heated. Our coil designs are proprietary and custom made in-house for each application. Typical coil designs include single or multiple turn helical (solenoid style), single or dual place pancake or spherical helical, and multi-turn formed coils. One heating coil is used for heating the part in all cases.

Q5- What is the maximum temperature that they expect to reach?

A5- Up to a maximum of 1300°C.

Q6- How fast they need to reach that temperature? What is the maximum T/second?

A6- Depends on application and test specifications. Maximum heating rate is usually less than 40°C/second.

Q7- Do they want to heat the surface fast or they want that the turbine bulk gets heated?

A7- We are requesting a heating solution that provides a skin depth of 1mm or higher in nickel superalloys.

Q8- Do they need to cool down the test sample?

A8- This depends on application. When cooling is needed we design and manufacture our own cooling solutions.

Q9- How they want to measure the temperature? Thermocouple? Pyrometer?

A9- We provide our own solution for temperature measurement. Depending on accessibility and application thermocouple(s) or a pyrometer is used. To ensure compatibility with our temperature measurement solution, the heating equipment must be capable of accepting a 0 to 10VDC or -10 to 10VDC analog voltage signal for controlling heat output.

Q10- Do they need protected atmosphere around the blade or contact with ambient air is not a problem?

A10- Heating is performed in ambient air.

Q11- Do they need to repeat the heating cycle? For example to simulate thermal fatigue?

A11- This depends on application and test specification. We provide our own solution for programming and closed-loop control of temperature for isothermal or thermal fatigue. To ensure compatibility with our temperature control solution, the heating equipment must be capable of accepting a 0 to 10VDC or -10 to 10VDC analog voltage signal for controlling heat output.

Q12- Is there a requirement to store and record the (time, temperature) data on USB key for further analysis?

A12- No. We provide our own solution for data acquisition.

Q13- We request that you give an extension for one (1) week for RFP closing.

A13- We do not agree to an extension as delivery of the heating equipment is urgently required.

All other terms and conditions of the Request for Proposal remain unchanged.