

**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

|   |  |
|---|--|
| <b>Title - Sujet</b><br>HEAT EXCHANGERS   |  |
| <b>Solicitation No. - N° de l'invitation</b><br>23375-160262/B  | <b>Amendment No. - N° modif.</b><br>002      |
| <b>Client Reference No. - N° de référence du client</b><br>23375-160262   | <b>Date</b><br>2015-10-21                    |
| <b>GETS Reference No. - N° de référence de SEAG</b><br>PW-\$\$HL-657-68124  |  |
| <b>File No. - N° de dossier</b><br>hl657.23375-160262   | <b>CCC No./N° CCC - FMS No./N° VME</b>       |
| <b>Solicitation Closes - L'invitation prend fin</b><br><b>at - à 02:00 PM</b><br><b>on - le 2015-11-02</b>  |  |
| <b>F.O.B. - F.A.B.</b><br><b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/> |  |
| <b>Address Enquiries to: - Adresser toutes questions à:</b><br>Turner, Louie  | <b>Buyer Id - Id de l'acheteur</b><br>hl657  |
| <b>Telephone No. - N° de téléphone</b><br>(819) 956-3975 ( )  | <b>FAX No. - N° de FAX</b><br>(819) 956-5227 |
| <b>Destination - of Goods, Services, and Construction:</b><br><b>Destination - des biens, services et construction:</b>   |  |

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

---

Amendment # 2 is issued to answer a potential bidders question.

For HX-4401 - Answer #2, Amendment #1. The answer states that the heat exchanger may be run counter current to avoid temperature cross.

**Question #1:**

Temperature cross is determined by the process designer. A heat exchanger is designed based on its process requirement therefore if the desired outlet temperature is crossing, avoiding the cross would be counterproductive. If temperature cross is to be avoided, what outlet temperature on the shell side is desired? When temperatures are crossing in a shell and tube heat exchanger, every one degree makes an exponential difference in size of the heat exchanger and therefore price, so exact temperatures in this case are paramount as there could be a 100K difference in price just based on one degree.

**Answer #1:**

The outlet temperature on the shell side cannot exceed 75 °C. The original numbers were done with a very basic heat exchanger calculation method and will need to be verified/modified by the contractor. As stated in the original request for proposal, a full heat exchanger design will need to be supplied by the contractor for the technical authority's approval. If the design does not agree with the initial numbers provided in Annex B, this does not imply that the design will be rejected, it simply means that the technical authority requires the data provided by the contractor in order to verify the design.

**Question #2:**

The parameters given for heat exchanger HX-4401 are not suitable for a shell and tube heat exchanger. The temperatures are low, pressures are low and the fluid is just water. A plate type heat exchanger would be a much more suitable as the cost would be one tenth fraction of the cost of a shell and tube. What is the reasoning behind acquiring a heat exchanger for a six figure price tag, which only needs to transfers 230kW of heat? This can be done by a brazed plate or plate and frame for less than 10K. However, at least the temperatures are required to design either configuration.

**Answer #2:**

As stated in item & of Annex A, "configuration deviations may be accepted upon review by the technical authority, drawings must be submitted with the bid package if deviations are to be considered". Again, a deviation does not imply that it will be rejected; it simply means that the technical authority will need to see the proposed configuration prior to approval. If the design is cheaper to manufacture and still meets the process conditions it will very likely be accepted.

All other terms and conditions remain the same.