

**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**  
Electrical & Electronics Products Division  
11 Laurier St./11, rue Laurier  
6B1, Place du Portage, Phase III  
Gatineau, Québec K1A 0S5

<b>Title - Sujet</b> ROLLING MILL	
<b>Solicitation No. - N° de l'invitation</b> 23584-130012/A	<b>Amendment No. - N° modif.</b> 004
<b>Client Reference No. - N° de référence du client</b> 23584-130012	<b>Date</b> 2012-06-05
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HN-445-60428	
<b>File No. - N° de dossier</b> hn445.23584-130012	<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 2012-06-27</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b> <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> Ladouceur, Joanne M.	<b>Buyer Id - Id de l'acheteur</b> hn445
<b>Telephone No. - N° de téléphone</b> (819) 956-3587 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <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> <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>

This amendment 004 is raised to provide a response to a supplier enquiry and to extend the closing date to June 27, 2012. The question and response are provided as follows:

**DELETE:** June 20, 2012

**INSERT:** June 27, 2012

**Question:** What does the delivery hereunder imply, is the delivery of equipment to site or the completion of the commissioning / acceptance testing and hand over for operation to the end user?  
"E) the Bidder must provide delivery by March 31, 2014. (Due to operational requirements, no work will be done beyond March 31, 2014 and the contract will be considered complete.)

**Response:** The entire project (delivery, installation, commissioning and acceptance) must be completed before March 31, 2014.

**Question:** *Item 2.1 General Design Requirements*  
There is no mention of cooling for the rolls during hot rolling, is this required or is the system supplied by others?

**Response:** This requirement is for a laboratory scale mill and it will not be operated long enough to require water cooling of the rolls.

**Question:** *Item 2.2*  
What is the available power for the complete mill , with the coilers 600 Volts amp capacity?

**Response:** The Vendor shall specify full power requirements (FLA: Full Load Amps) in the bid package. CMAT will supply the required capacity considering the efficiency standards requested in the mandatory requirements (Power Factor and Building LEED requirements).

**Question:** What are the short circuit requirements?

**Response:** Minimum of 50 kA.

**Question:** Cooling water what capacity is available?

**Response:** The Vendor shall specify the process cooling water requirements in the bid package. CMAT is not anticipating high cooling rates flow for this installation. The product process cooling must be a self contained system. The system shall rely on water recirculation (closed loop).

**Question:** Please explain Ethernet filters?

**Response:** This is "Line Conditioners (filters)", it is not "Ethernet filters". This means the requirement for filters to protect the electronic equipment.

**Question:** *Item 2.3.1*  
AC drives for mill and coiler motors, harmonic requirement at what point in the supply network?

**Response:** Harmonic current distortion in percent of load requirement: below 5 %

**Question:** *Item 2.3.1.2*

When using the coilers with the mill what sort of tension accuracy are you after, as this can affect the reduction at the mill bite?

**Response:** Please, read spec. 2.3.3.4, "The system shall be capable of executing a cold rolling schedule under tension of up to 50 kN +- 1 % on the coil..."

**Question:** *Item 2.3.2.5*

ASTM A568 should this read ½ or ¼?

**Response:** Full ASTM A568 tolerance is required.

**Question:** *To be précised: are this "work rolls 4-hi" or "work rolls 2-hi"?*

We assume that this means convention; 4 hi mill with 2 back up rolls and 2 work rolls, we assume also that you would like the mill to work in a 2 high configuration using the work rolls, please clarify

**Response:** YES, it is 4 hi mill with 2 back up rolls and 2 work rolls.

**Question:** What work roll diameter do they have in mind for 4-hi?, we do not have a product mix neither cold rolled finish thickness x alloy!

**Response:** This is a multifunction research rolling mill. The Vendor shall design the rolls to meet the mandatory requirements as described in the Acceptance Test Plan (Annex "B").

**Question:** Could you also confirm the torque that you want at the rolls.

**Response:** The Vendor shall calculate the torque to meet the mandatory requirements as described in the Acceptance Test Plan (Annex "B").

**Question:** We do not quite understand the working below, do you require two manipulator, please confirm? Also do you have drawings of the furnace so we can determine how to get under the ingot to hold it with the manipulator?

**Response:** Two manipulators are required. One on each side of the mill. Thermcraft furnace drawings attached.

**Question:** *Item 2.3.5.1*

Can the gap controller be a PC or high speed controller? Not a PLC?

**Response:** The rolling mill controller shall be a PLC. See 2.3.5. Mill Control and Data Acquisition.

**Question:** Our manufacturer would like to know whether this is a coil reducing mill.

**Response:** The rolling mill must be capable to perform coil reduction.

**INSERT:      *Rolling Mill Procurement - Solicitation No. 23584-130012/A***  
***May 30, 2012 - Mandatory Site Visit - Q & A -***

- 1.)      **Q:** What is the maximum electrical power available or possible?  
**A:** The Vendor shall specify full power requirements (FLA: Full Load Amps) in the bid package. CMAT will supply the required capacity considering the efficiency standards requested in the mandatory requirements (Power Factor and Building LEED requirements).
  
- 2.)      **Q:** What is the process cooling water capacity available?  
**A:** The Vendor shall specify the process cooling water requirements in the bid package. CMAT is not anticipating high cooling rates flow for this installation. The product process cooling must be a self contained system. The system shall rely on water recirculation (closed loop).
  
- 3.)      **Q:** What is the coiler maximum outer diameter?  
**A:** Maximum inner diameter plus 200mm, i.e. 962 mm.
  
- 4.)      **Q:** What is the Short Circuit Interrupting capacity requirement?  
**A:** The Short Circuit Kilo-Amperes Interrupting capacity (KAIC) shall be a minimum of 50 KAIC (50,000 A).
  
- 5.)      **Q:** What is the Harmonic Current Distortion requirement for AC drives (mill and coiler motors)?  
**A:** The Harmonic Current Distortion in percent of load requirement shall be less than 5%.
  
- 6.)      **Q:** Are CMAT supplying multiple feeds or a single feed for the electrical power?  
**A:** CMAT will supply a single point of connection for the electrical power, within 3 meters of the Vendor's desired location.
  
- 7.)      **Q:** Is this a coil reducing (reduction) mill?  
**A:** The rolling mill must be capable to perform coil reduction.
  
- 8.)      **Q:** What type of coiler is required? Wrap around or gripper slot?  
**A:** The mill must be able to (a) accept and process coils from third parties and (b) make coil at room temperature from strips (.cf section "Entry & Delivery Payoff"). The vender shall design and specify suitable coiler and gripping rigs.
  
- 9.)      **Q:** What type of materials will be processed?  
**A:** Hot rolling: High strength steels with up to 275MPa flow strength at deformation temperatures, aluminum and magnesium alloys (ferrous and non-ferrous materials). Cold rolling: High strength steels with up to 900MPa yield strength at room temperature, aluminum and magnesium alloys. (cf. "system testing plan")
  
- 10.)      **Q:** What is the maximum rolling temperature desirable?  
**A:** The mill must process feedstock slabs with entry temperature of up to 1250°C.
  
- 11.)      **Q:** For thickness (gauge) tolerance, is CMAT willing to consider "1/2" or "1/4" ASTM A568 tolerances?

**A:** Full ASTM A568 tolerances are required.

**12.) Q:** How many manipulators are required? A furnace drawing has been required.

**A:** Two manipulators are required, one on each side of the mill. Furnace drawing attached.

**13.) Q:** Can the gap controller be a PC or a high speed controller?

**A:** The rolling mill controller shall be a PLC. See RFP item 2.3.5.: Mill Control and Data Acquisition.

**14.) Q:** What type of cooling is required for the Accelerated cooling?

**A:** Target cooling rate is 240°C/s per each mm thickness between 800 to 500°C. The vender shall design suitable water cooling system to fulfill the requirements. The Rolling Mill procurement is for laboratory applications, not for industrial performance. The system design and performance must be flexible enough to process different materials in many diverse conditions.

**15.) Q:** Who will be responsible for the rolling schedule development?

**A:** The mill must include control software that designs hot and cold rolling schedule for conventional grades; however CMAT's operator must be able to modify the proposed schedule prior to its execution.

**16.) Q:** Is it required a separate room for the hydraulic power system?

**A:** The Rolling Mill including all the ancillary equipment must be sized as per Annex "A", 2.1. The hydraulic system design shall meet the Hydraulic, Flooring and Trenches requirements specified on Annex "A", 2.2. "Facility Integration". There is no existing pump room for the hydraulic power system. The Vendor shall decide if a pump room is necessary. If a pump room is required, the extra cost must be included in the procurement.

**17.) Q:** What is the floor loading capacity?

**A:** The floor slab is capable of supporting a general loading allowance of 15 kPa (300 psf). Loading conditions up to 25 kPa (500 psf) are permitted. For any concentrated loads exceeding the general loading allowance, the Contractor shall insure floor support load (Annex "A", 2.1. General Design Requirements)

Note: a CD with CMAT Health & Safety Policy and Room G043 layout (pdf and dwg version) has been distributed to the Vendors during the mandatory site visit.

All other clauses and conditions remain unchanged.



