



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Travaux publics et Services gouvernementaux
Canada

Voir dans le document/

See herein

NA

Québec

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.

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Travaux publics et Services gouvernementaux Canada
Place Bonaventure, portail Sud-Oue
800, rue de La Gauchetière Ouest
7^e étage, suite 7300
Montréal
Québec
H5A 1L6

Title - Sujet Laser metal powder bed fusion syst.	
Solicitation No. - N° de l'invitation 31206-203806/B	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client 31206-203806	Date 2020-05-14
GETS Reference No. - N° de référence de SEAG PW-SMTA-030-15723	
File No. - N° de dossier MTA-9-42210 (030)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-05-29	Time Zone Fuseau horaire Heure Avancée de l'Est HAE
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Pommet, Bruno André	Buyer Id - Id de l'acheteur mta030
Telephone No. - N° de téléphone (514) 702-9582 ()	FAX No. - N° de FAX (514) 496-3822
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: NRC- Winnipeg Site 435 Ellice Avenue Winnipeg, Manitoba R3B 1Y6	

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 002

This amendment is to publish a new series of Questions and Answers (Q&A) regarding the Requirement (Annex A).

Question 3:

Ref Annex A - 2.14.6: The system software must allow direct access to a controller that functions similarly to a SCADA port.

Can the proposed system have a different system architecture? If a machine does not have a SCADA, but other possibility (for example OPC-UA) to access machine data.

Answer 3:

No, supervisory control and data acquisition (SCADA) will send messages and collect information to and from the numerical control communication port or the PLC(dependent on the system architecture) of the additive system such as start/stop the process, read the monitored process data, download error log file, get machine status, etc. through a network. All the communication is done through OPC-UA protocol.

Question 4:

Ref Annex A - 2.14.7: The CNC must allow access to add additional tags or process parameters to the SCADA bus.

Can the machine not be a CNC based machine? Can the process parameters be changed in the build processor?

Answer 4:

No, the system must have a Numerical Control. Yes, new process parameters can be added in the build processor.

Question 5:

Ref Annex A - 2.14.8: The CNC must be able to interact with other external controllers (SCADA Type) as required via a time-enabled and network-enabled Ethernet interface for control signals.

Can the machine not be a CNC based machine even if the machine supports Ethernet? Control signals can be received and sent.

Answer 5:

No, the system must have a Numerical Control, it can be PC based (for the latest generation of Numerical Control). CNC is used generically and can be seen as the control system of your machine.

Question 6:

Ref Annex A - 2.14.9: The CNC must have the ability to bi-directional communication on internal memory tags, process variables and sensor data with a SCADA via an OPC UA, MQTT or any other websocket protocol.

Can the machine supports an OPC UA with a mostly unidirectional system? The number of processed parameters increases constantly.

Answer 6:

Unidirectional communication is accepted on some internal tags if and only if the bidirectional communication will create an Health and Safety Issue. Otherwise the bidirectional communication is required on the tags. As an example, communicating with the system to obtain its status has to be bi-directional.

Question 7:

Ref Annex A - 3.3 / 3.3.1: The supplier must also provide upon delivery at least two (2) sets of accessories including, as a minimum for each set upon delivery:

3.3.1 Three (3) powder tanks;

Can the configuration include (4) powder tanks, instead of (3)?

Answer 7:

Yes, but you are exceeding the requirement. Thus, it is acceptable and dependant on the system architecture/ proposed solution.

Question 8:

Ref Annex A - 3.3 / 3.3.2: The supplier must also provide upon delivery at least two (2) sets of accessories including, as a minimum for each set upon delivery:

3.3.2 One (1) sieve;

Do you want (2) sieving stations? Or do you want to be able to process two materials?

Answer 8:

The NRC specifies one sieving station. Suppliers can exceed and provide 2, if need be, based on the design of the proposed system. **Bidders must keep in mind** the system is used for R&D activities not production on a large scale.

Question 9:

The machine uses different coater mediums for 200C and 500C build jobs. Can you please clarify if both 200C and 500C build jobs will be performed?

Answer 9:

Since the NRC will perform R&D activities on multiple material, yes both 200C and 500C build jobs will be performed.

Question 10:

How many different materials are you planning to process? We need to know this for the correct number of material change kits for machine and periphery (unpacking, **sieving, vacuum conveyor, etc.**)?

Solicitation No. - N° de l'invitation
31206-203806 /B
Client Ref. No. - N° de réf. du client
31206-203806

Amd. No. - N° de la modif.
002
File No. - N° du dossier
MTA-9-42210

Buyer ID - Id de l'acheteur
MTA030
CCC No./N° CCC - FMS No./N° VME

Answer 10:

The amount of alloys is pretty large if you look at annex A point 2.4, (Ti, Al, Ni and Fe based alloys are covered). Based on 2.12.4, the NRC will be able to clean the used/contaminated kit while the clean kit, with a different material, is installed on the processing additive system.

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.