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1550 D'Estimauville Avenue
Québec
Québec
G1J 0C7

**LETTER OF INTEREST
LETTRE D'INTÉRÊT**

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
TPSGC - PWGSC
601 - 1550 Avenue d'Estimauville
Québec
Québec
G1J 0C7

| | |
|---|---|
| Title - Sujet Environmental Chambers | |
| Solicitation No. - N° de l'invitation W7701-176259/C | Date 2017-03-29 |
| Client Reference No. - N° de référence du client W7701-176259 | GETS Ref. No. - N° de réf. de SEAG PW-\$QCW-029-17082 |
| File No. - N° de dossier QCW-6-39253 (029) | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2017-04-18 | |
| Time Zone Fuseau horaire 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: Laliberté Seyer, Arlow | Buyer Id - Id de l'acheteur qcw029 |
| Telephone No. - N° de téléphone (418) 649-2824 () | FAX No. - N° de FAX (418) 648-2209 |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: RDDC-R ET D DÉFENSE CANADA-VALCARTIER DRDC-DEFENCE R&D CANADA-VALCARTIER 2459 ROUTE DE LA BRAVOURE BATISSE 53 QUEBEC Québec G3J1X5 Canada | |

Instructions: See Herein

Instructions: Voir aux présentes

| | |
|---|--|
| Delivery Required - Livraison exigée Voir doc | 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 |

RFI/LOI W7701-176259

TITLE: Temperature and humidity environmental chambers

This request for information (RFI) is not a Request for Proposal (RFP), and no contract will be awarded solely because of the RFI.

Note to interested suppliers:

This RFI is neither a call for tender nor a RFP. No agreement or contract will be entered into based on this RFI. The issuance of this RFI is not to be considered in any way a commitment by the Government of Canada, nor as authority to potential respondents to undertake any work that could be charged to Canada. This RFI is not to be considered as a commitment to issue a subsequent solicitation or award contract(s) for the work described herein.

Although the information collected may be provided as commercial-in-confidence (and, if identified as such, will be treated accordingly by Canada), Canada may use the information to assist in drafting performance specifications (which are subject to change) and for budgetary purposes.

Respondents are encouraged to identify, in the information they share with Canada, any information that they feel is proprietary, third party or personal information. Please note that Canada may be obligated by law (e.g. in response to a request under the Access of Information and Privacy Act) to disclose proprietary or commercially-sensitive information concerning a respondent (for more information: <http://laws-lois.justice.gc.ca/eng/acts/a-1/>).

Respondents are asked to identify if their response, or any part of their response, is subject to the Controlled Goods Regulations.

Participation in this RFI is encouraged, but is not mandatory. There will be no short-listing of potential suppliers for the purposes of undertaking any future work as a result of this RFI. Similarly, participation in this RFI is not a condition or prerequisite for the participation in any potential subsequent solicitation.

Respondents will not be reimbursed for any cost incurred by participating in this RFI.

1. Purpose and Nature of the Request for information (RFI)

Public Works and Government Services Canada (PWGSC) is requesting Industry feedback regarding the procurement of temperature and humidity environmental chambers.

The objectives of this RFI are to:

- to help support a potential Request For Proposal (RFP);
- to seek a cost estimate for the temperature and humidity environmental chambers;
- to seek the feasibility of the proposed concept.

2. Background Information:

DRDC aims to collect information from the industry to support an eventual RFP to acquire 3 temperature and humidity environmental chambers for use in the Small Arms Ballistics Laboratory and the Small Caliber Ballistics Laboratory for conditioning samples of all kinds. Two (2) environmental chamber models shall be purchased, a small chamber size model (2x) and a larger one (1x) to meet the specific needs of each laboratories.

3. Potential Work Scope and Constraints:

Follow-on the LOI solicitation, DRDC would aim to prepare a Statement of Work (SOW) to support a RFP to be offered by TPSGC on the Buyandsell.gc.ca website. The contract objective would be to acquire 3 environmental chambers alongside with installation and commissioning, training, maintenance and calibration services.

4. Legislation, Trade Agreements, and Government Policies:

The following is indicative of some of the legislation, trade agreements and government policies that could impact any follow-on solicitation(s):

- a) Agreement on Internal Trade (AIT)
- b) North American Free Trade Agreement (NAFTA)
- c) Defence Production Act
- d) Defence Procurement Strategy (DPS)
- e) Federal Contractors Program for Employment Equity (FCP-EE)

5. Schedule:

In providing responses, the following schedule should be utilized as a baseline:

- Letter of Interest (LOI) submitted no later than April 19, 2017
- RFP issued (May 2017)

6. Important Notes to Respondents:

Interested Respondents may submit their responses to the PWGSC Contracting Authority, identified below, by mail or fax:

Name: Arlow Laliberté Seyer
Title: Procurement Officer
Public Works and Government Services Canada
Acquisitions Branch
Address: 1550, Avenue d'Estimauville, Québec, QC G1J 0C7
Telephone: 418-649-2824
Facsimile: 418-648-2209

E-mail address: arlow.laliberteseyer@tpsgc-pwgsc.gc.ca

A point of contact for the Respondent should be included in the package.

Changes to this LOI may occur and will be advertised on the Government Electronic Tendering System. Canada asks Respondents to visit Buyandsell.gc.ca regularly to check for changes, if any.

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Amd. No. – N° de la modif.

File No. – N° du dossier

QCW-6-39253

Buyer ID – id de l'acheteur

QCW029

7. Closing date for the LOI:

Responses to this LOI are to be submitted to the PWGSC Contracting Authority identified above, on or before April 19 2017.

8. Draft Statement of Work (SOW)

See Part A

Part A contains a description of a requirement. Suppliers are invited to examine the scope of the work and to respond to the questions in Part B

PARTIE A - REQUIREMENT

1. TITLE

Temperature and humidity environmental chambers

2. INTRODUCTION

Defense Research and Development Canada (DRDC) – Valcartier Research Centre needs to purchase 3 temperature and humidity environmental chambers for use in the Small Arms Ballistics Laboratory and the Small Caliber Ballistics Laboratory for conditioning samples of all kinds. Two (2) environmental chamber models shall be purchased, a small chamber size model (2x) and a larger one (1x) to meet the specific needs of each laboratories.

3. BACKGROUND

In various tests involving equipment for the protection of military personnel, the lethality of ammunitions and the weapons, ballistics laboratories shall regularly condition samples according to specific temperature and humidity levels. For example, we have to condition ballistic helmets and plates as well as ballistic gelatin and plastilina. The conditioning parameters vary according to the test protocols used, but we regularly use the following conditions:

- a) -54°C or -40°C with uncontrolled relative humidity;
- b) +4°C with uncontrolled relative humidity;
- c) +50°C with relative humidity of 95%;
- d) -+70°C with uncontrolled relative humidity.

The conditioning duration for the samples is generally 24 hours, but the conditioning chambers shall be able to maintain their temperature and humidity parameters over several days because new samples are introduced into the chambers continuously.

4. OBJECTIVE

The objective of this contract is to acquire 3 chambers for conditioning in temperature and humidity.

5. ACRONYMS

CSA : Canadian Standards Association

6. NEEDS

The Contractor shall provide a total of 3 temperature and humidity environmental chambers, including 2 small-format chambers and one large-format chamber meeting the specifications listed in section "7. Deliverables". For information:

- The 2 small-sized chambers will be located in an air-conditioned room, but heat generation from the chambers shall be minimal to avoid overheating.
- The large format chamber will mainly be used to condition opaque or transparent armor plates with a mass of 150 kg.
- None of the samples to condition for both chamber formats will be releasing heat.

7. DELIVERABLES

Contractor shall provide the following deliverables. The deliverables shall meet the mandatory technical specifications listed below.

7.1 Environmental chambers, small size

Required quantity: 2

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|---|
| 7.1.1 Temperature |
| 7.1.1.1 Temperature range: From -65°C to +175°C. |
| 7.1.1.2 Regulation speed: From +85°C to -40°C in 40 minutes or less (empty chamber). |
| 7.1.1.3 Regulation speed: From -40°C to +85°C on 20 minutes or less (empty chamber) |
| 7.1.1.4 Temperature regulation: Minimal and maximal fluctuation of 0.5°C from target value and a minimal and maximal uniformity of 2°C. |
| 7.1.2 Humidity |
| 7.1.2.1 Relative humidity range: From 10% to 98%. |
| 7.1.2.2 Relative humidity regulation: Minimal and maximal fluctuation of 3% from target value and a minimal and maximal uniformity of 3%. |
| 7.1.3 Dimensions and supported mass |
| 7.1.3.1 Minimum interior dimensions: 23.6" (600mm) width, 24" (610mm) depth and 24" (610mm) height. |
| 7.1.3.2 Maximum exterior dimensions, including handle, windows and control panel: 41" (1041mm) width, 57" (1448mm) depth and 80" (2032mm) height. |
| 7.1.3.3 The interior floor of the chamber shall be able to withstand a mass of 90 kg distributed over a surface of 16" (406 mm) by 18" (457 mm). |

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| 7.1.4 Characteristics |
| 7.1.4.1 Cascade mode cooling with 2 compressors having a maximum power of 1.5 h.p each. |
| 7.1.4.2 Integrated heating system or any other system not requiring the use of a windscreen wiper to eliminate the fog on the window of the room. |
| 7.1.4.3 Minimum of 2 adjustable shelves made of stainless steel with a capacity of at least 16 kg each. |
| 7.1.4.4 Stainless steel interior surfaces with expandable joints for thermal expansion. |
| 7.1.4.5 Humidity water purification and recirculation system. |
| 7.1.4.6 Protection system for high and low temperature limits. The system shall be able to interrupt the start-up of the device when the high and low temperature limits prescribed by the user are reached. |
| 7.1.4.7 The conditioning chamber shall be constructed in such a way that it is not necessary to use an independent system to drain the water generated by the humidity system when the apparatus is used at temperature levels below 0°C. |
| 7.1.4.8 Defrosting system to prevent ice accumulation on the coil when operating for long periods (more than 24 hours). |
| 7.1.4.9 The refrigerant medium used shall comply with the federal halocarbon regulations of the Canadian Environmental Protection Act. |
| 7.1.4.10 The unit is equipped with a light inside the environmental chamber. |
| 7.1.4.11 The refrigeration system of the device does not require an independent cooling system. |
| 7.1.4.12 The appliance shall be constructed in accordance with the CSA electrical specifications. |
| 7.1.4.13 Electric power voltage : 240 V, 1 phase and 60 Hz. |
| 7.1.4.14 Shall have an access port with a diameter between 7.5 and 10 cm. |
| 7.1.4.15 Use and maintenance manuals in English and/or French including: electrical circuit drawings and diagrams, operating software access codes, refrigeration system plans, frame and component drawings, warranty modalities and calibration certificate. |

7.2 Environmental chamber, large size

Required quantity: 1

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|---|
| 7.2.1 Temperature |
| 7.2.1.1 Temperature range of -65°C à +175°C. |
| 7.2.1.2 Regulation speed: from +85°C to -40°C in 50 minutes or less (empty chamber). |
| 7.2.1.3 Regulation speed from -40°C to +85°C on 30 minutes or less (empty chamber). |
| 7.2.1.4 Temperature regulation: Minimal and maximal fluctuation of 0.5°C from target value and a minimal and maximal uniformity of 2°C. |
| 7.2.2 Humidity |
| 7.2.2.1 Relative humidity range: From 10% to 98%. |
| 7.2.2.2 Relative humidity regulation: Minimal and maximal fluctuation of 3% from target value and a minimal and maximal uniformity of 3%. |
| 7.2.3 Dimensions and supported mass |
| 7.2.3.1 Minimum interior dimensions: 35.4" (900mm) width, 35.4" (900mm) depth and 35.4" (900mm) height. |
| 7.2.3.2 Maximum exterior dimensions, with handle, windows and control panel: 58" (1473mm) width, 72" (1829mm) depth and 92" (2337mm) height. |
| 7.2.3.3 The interior floor of the chamber shall be able to withstand a mass of 150 kg distributed over a surface of 35.4" (900 mm) by 35.4" (900mm). |
| 7.2.4 Characteristics |
| 7.2.4.1 Cascade mode cooling with 2 compressors having a maximum power of 2.0 h.p each. |
| 7.2.4.2 Integrated heating system or any other system not requiring the use of a windscreen wiper to eliminate the fog on the window of the room. |
| 7.2.4.3 Minimum of 2 adjustable shelves made of stainless steel with a capacity of at least 16 kg each. |
| 7.2.4.4 Stainless steel interior surfaces with expandable joints for thermal expansion. |
| 7.2.4.5 Humidity water purification recirculation system. |
| 7.2.4.6 Protection system for high and low temperature limits. The system shall be able to interrupt the start-up of the device when the high and low temperature limits prescribed by the user are reached. |
| 7.2.4.7 The conditioning chamber shall be constructed in such a way that it is not necessary to use an independent system to drain the water generated by the humidity system when the apparatus is used at temperature levels below 0°C. |

7.2.4.8 Defrosting system to prevent ice accumulation on the coil when operating for long periods (more than 24 hours).

7.2.4.9 The refrigerant medium used shall comply with the federal halocarbon regulations of the Canadian Environmental Protection Act.

7.2.4.10 The unit is equipped with a light inside the environmental chamber.

7.2.4.11 The refrigeration system of the device does not require an independent cooling system.

7.2.4.12 The appliance shall be constructed in accordance with the CSA electrical specifications.

7.2.4.13 Electric power voltage : 208 V, 3 phases and 60 Hz

7.2.4.14 Shall have an access port with a diameter between 7.5 and 10 cm.

7.2.4.15 Use and maintenance manuals in English and/or French including: electrical circuit drawings and diagrams, operating software access codes, refrigeration system plans, frame and component drawings, warranty modalities and calibration certificate.

7.3 Installation and commissioning

Required quantity: 1

7.3 Installation and commissioning

7.3.1 The contractor shall prepare and commission the 2 small-size environmental chambers when they are installed at the Valcartier Research Centre's small arms laboratory.

7.3.2 The contractor shall prepare and commission the large-size environmental chamber when it is installed at the Valcartier Research Centre's small caliber laboratory.

7.3.3 The contractor shall ensure that the 3 chambers are fully functional and ready for use at the end of the installation.

7.4 Training

Required quantity: 1

7.4 Training

7.4.1 The training shall include the following guidelines:

- The contractor shall provide training on the use of the 3 chambers for a maximum of 6 participants.
- The training must take place at DRDC - Valcartier Research Centre and must last from 1 to 2 days.
- The training shall be given between April and May 2017. The training coordination shall be taken with DRDC Valcartier's representative to ensure that it is given at the earliest opportunity and at the convenience of DRDC Valcartier.
- At the end of the training, users must be able to operate the device various features such as cycles, parameter programming, alarms, etc. and having sufficient knowledge to solve problems that may arise with the control panel.

7.5 Maintenance

Required quantity: 10 (each of the 10 maintenance services must include the 3 environmental chambers)

7.5 Maintenance

7.5.1 For each of the 3 environmental chambers, the contractor shall provide bi-annual preventive maintenance over a 5-year period. The following actions shall be included (non-exhaustive list):

- Check the general condition of the device;
- Inspect the control center;
- Inspect the electrical system (fan, compressors, ground, resistances of electrical components, heating, motors, etc.)
- Check the amperage of the heating elements, compressors, humidity system;
- Check the heating, cooling and humidification system;
- Lubricate the components;
- Clean the air grills;
- Check the refrigerant pressures;
- Check and adjust temperature and humidity alarms;
- Check the condition of the belts and change them if necessary.

7.5.2 For each of the 3 environmental chambers, a maintenance report shall be provided indicating the work that has been done and the parts to be replaced.

7.6 Calibration

Required quantity: 5 (each of the 5 maintenance service must include the 3 environmental chambers)

| 7.6 Calibration |
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| 7.6.1 For each of the 3 environmental chambers, the contractor must carry out an annual calibration over a period of 5 years on the following points: <ul style="list-style-type: none">- Calibrate temperature controls;- Calibrate relative humidity controls. |
| 7.6.2 For each of the 3 environmental chambers, a calibration report with a four-point calibration certificate must be provided. |

8. WORKING LANGUAGE

Preparation, installation, calibration, start-up, training and after-sales service shall be provided in English or French.

9. WORK PLACE

The Contractor shall travel to the following address to perform the tasks listed below:

Address: Defence Research and Development Canada - Valcartier Research Center
Building 251, room 110/101
2459 de la Bravoure road
Québec, Québec.
G3J 1X5
Canada

Task: Preparation and devices start up

Duration: 1 day

Frequency: 1 time

Task: Training

Duration: 1 to 2 days

Frequency: 1 time

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QCW-6-39253

Buyer ID – id de l'acheteur

QCW029

Task: Maintenance

Duration: 1 day

Frequency: 2 times per year during 5 years. A 6 months interval shall separate each maintenance tasks.

Task: Calibration

Duration: 1 day

Frequency: 1 time per year during 5 years. A 12 months interval shall separate each calibration tasks.

PART B – QUESTIONS TO CONTRACTORS

Suppliers are invited to respond to the questions at Part B.

Answers to the following questions must provide information on the technical challenges and the major commercial and budgetary issues of the project described at Part A.

Answers can be submitted in one of the two Official Languages of Canada (English or French).

Notes :

1. Suppliers who respond to this Request for Information should identify their potential partners if there is a need to enhance the existing expertise of their company.
2. Since this request for Information is not a request for proposals (RFP) and since no contract will be awarded solely because of the RFP, Canada reserves the right to see the responses upon receipt, ie, Canada wants to be able to consult the responses before the closing date.

Respondents are requested to provide their response to this RFI as per the following questions:

- 1 Provide a point of contact, if further questions or clarification is required.
- 2 Are the preliminary specifications achievable? If not, which one and why? Can they be improved upon?
- 3 What is your estimation of the cost and the time frame regarding this requirement?
- 4 Is there some elements that prevent the contractor from performing the services stated in Appendix A (Statement of Work)?
- 5 Considering that the RFP will include security requirements (the Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Designated Organization Screening (DOS); the Contractor/Offeror personnel requiring access to sensitive work site(s) must EACH hold a valid RELIABILITY STATUS), is it possible that those security requirements would bring issues or delays for the Contractor?

Communications in Posting Period:

All **Requests for information** must be submitted to the Contracting Authority, preferably by emailing arlow.lalibertesever@tpsgc-pwgsc.gc.ca, **at least eight calendar days before the closing date**. Enquiries received after this time may not be answered.