



## RETURN BIDS TO:

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1713 Bedford Row

Halifax, N.S./Halifax, (N.E.)

Halifax

Nova Scotia

B3J 1T3

Bid Fax: (902) 496-5016

## 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

Atlantic Region Acquisitions/Région de l'Atlantique  
Acquisitions

1713 Bedford Row

Halifax, N.S./Halifax, (N.E.)

Halifax

Nova Scot

B3J 1T3

<b>Title - Sujet</b> CCGC Mechanical and Sprinklers	
<b>Solicitation No. - N° de l'invitation</b> EB144-190543/A	<b>Amendment No. - N° modif.</b> 006
<b>Client Reference No. - N° de référence du client</b> EB144-19-0543	<b>Date</b> 2018-08-04
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$PWA-121-5750	
<b>File No. - N° de dossier</b> PWA-8-80020 (121)	<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 2018-08-21</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Atlantic Daylight Saving Time ADT
<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> Russell (PWA), Alex	<b>Buyer Id - Id de l'acheteur</b> pwa121
<b>Telephone No. - N° de téléphone</b> (902) 401-8180 ( )	<b>FAX No. - N° de FAX</b> (902) 496-5016
<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>

## **PART 1 GENERAL**

### **1.1 REFERENCES**

- .1 Do installation of low pressure packaged boiler in accordance with Regulations of the Province of Nova Scotia, CSA B51, ASME Code Section IV, ASME N626.3-1984, CSA B140.7.2, CAN1-3,1-85, Canadian Electrical Code, CSA B139, CSA B139S1, ANSI B31.1, except where specified otherwise.
- .2 All packaged cast iron sectional boilers to have C.R.N. registration.

### **1.2 SHOP DRAWINGS**

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittals.
- .2 Indicate the following:
  - .1 General arrangement showing terminal points, instrumentation test connections.
  - .2 Clearances for operation, maintenance, servicing.
  - .3 Foundations with loadings, anchor bolt arrangements.
  - .4 Piping hook-ups.
  - .5 Equipment electrical drawings.
  - .6 Burners and controls.
  - .7 All miscellaneous equipment.
  - .8 Flame safety control system.
  - .9 Breeching and stack configuration.
  - .10 Stack emission continuous monitoring system to measure CO, O<sub>2</sub>, CO<sub>2</sub>, NO and stack temperature.
- .3 Engineering data to include:
  - .1 Performance data at 25%, 50%, 75%, 100% and 110% design capacity.
  - .2 Radiant heat loss at 100% design capacity.

### **1.3 MAINTENANCE MATERIALS SPECIAL TOOLS AND SPARE PARTS**

- .1 Provide maintenance data for incorporation into manual specified in Section 01 33 00 - Submittals.
- .2 Maintenance materials to include:
  - .1 Special tools for burners, manholes, handholes and O&M.
  - .2 Spare parts for one (1) year of operation.
  - .3 Spare gaskets.
  - .4 Spare gauge glass inserts.
  - .5 Probes and sealants for electronic indication.
  - .6 Spare burner tips.
  - .7 Spare burner gun.
  - .8 Safety valve test gauge.
  - .9 Recommended spares for long term maintenance.

## **PART 2 PRODUCTS**

### **2.1 GENERAL**

- .1 The existing Boiler Plant in Cabot Building contains two (2) Oil Fired Buderus Boilers. (Boiler No.1: Buderus Model GE 615/11, Boiler No. 2: Buderus Model GE 615/14) with heatronic 4000 boiler controllers and Riello burners.
- .2 Provide dismantling, relocation and reinstallation of boilers in their entirety (burners, controls, accessories, fuel oil piping services, breeching and piping services, etc.) to new locations within Boiler Room per new work plans.
- .3 Provide new upper and lower nipples, gaskets, sealants, glues and other components unable to be reused.
- .4 Dismantling, relocating and reassembly shall be done in accordance with manufacturer instructions.
- .5 Performance:
  - .1 Capacity:
    - .1 Hot Water: operating temperature range 40.5°C to 104°C (122°F to 220°F), 470KPa (68 psig) maximum operating pressure.
    - .2 Flue gas temperature leaving boiler:
      - .1 Not to exceed 260°C (500°F).
      - .2 Above dew point conditions at minimum firing rate.
    - .3 Perform combustion efficiency test on completed installation and adjust controls to achieve maximum efficiency. Submit written report to the Department Representative.
  - .6 Electrical
    - .1 Available electrical power: 120V, 1 Phase 60 Hz and 600V/3/60.
    - .2 Controls: 120V, 1 phase, 60 Hz. Provide in separate conduit from power wiring.
    - .3 Electrical Components: CSA approved.
    - .4 Cast iron section oil fired hot water boiler/burner package to bear ULC and CSA labels.
  - .7 Controls: Factory wired. Enclosed in NEMA 1 steel cabinet.
  - .8 Trial Usage:
    - .1 Owner may use boiler for test purposes prior to acceptance and commencement of warranty period.
    - .2 Supply labour, materials and instruments required for tests.

### **2.2 SERVICES OF FACTORY REPRESENTATIVE**

- .1 Contractor shall arrange to have services of the manufacturer's trained representative for the boiler and burner at the time of start-up.
- .2 Contractor shall check out the entire installation, including pumps and controls.

- .3 A factory trained technician shall start the boiler into operation and shall make all necessary test and adjustments to have said equipment running to his and to the Departmental Representative's satisfaction.
- .4 Manufacturer's representative shall conduct demonstration and combustion tests and submit a written report. Set a maximum and minimum firing rate of each boiler. Notify Departmental Representative with a letter stating that the installation has been checked and adjusted and is ready to turn over to the Owner. Guarantee period shall start upon receipt of the report and approved boiler inspection.

## **2.3 WARRANTY**

- .1 Provide a One (1) year full parts and labour warranty.
- .2 The boiler warranty period shall start upon completion of start-up and acceptance testing.

## **PART 3 EXECUTION**

### **3.1 INSTALLATION**

- .1 Dismantling, relocation and reassemble on site shall be by Mechanical Contractor. Work shall be phase to maintain boiler operation at all times.
- .2 Install in accordance with ASME Boiler and Pressure Vessels Code Section IV, regulations of Province having jurisdiction, except where specified otherwise, and manufacturers recommendations.
- .3 Make all required piping and electrical connections to all inlets and outlets recommended by boiler manufacturer.
- .4 Maintain clearances as indicated or if not indicated, as recommended by manufacturer for operation, servicing and maintenance without disruption of operation of any other equipment/system. Do not deviate from required service and maintenance clearances.
- .5 Mount unit level.
- .6 Provide Field wiring of all boiler controls and sensors as required.
- .7 The boiler design shall include a front door that provides for a full 90 degree swing-a-way of the complete burner assembly with a right or left hand swing selection. Adjust as required for new installation. The contractor shall be responsible for providing for this action, including installing flexible electrical lines that can be disconnected easily.
- .8 Provide pressure testing per manufacturer's recommendations.

### **3.2 IDENTIFICATION**

- .1 All identification to conform to Canadian General Standards Board (CGSB).
  - .1 CAN/CGSB-1.60-97, Interior Alkyd Gloss Enamel.

- .2 Manufacturer's Equipment Nameplates.
  - .1 Metal or plastic laminate nameplate mechanically fastened to each piece of equipment by manufacturer.
  - .2 Lettering and numbers raised or recessed.
  - .3 Bilingual Information to include, as appropriate:
    - .1 Equipment: manufacture's name, model, size, serial number, capacity.
    - .2 Motor: voltage, Hz, phase, power factor, duty, frame size.
- .3 Apply existing identification system to new work.
- .4 Before starting work, obtain written approval of identification system from Departmental Representative.
- .5 Controls Components Identification.
  - .1 Identify all systems, equipment, components, sensors with system nameplates specified.
  - .2 Inscription to include function and (where applicable) fail-safe position.
- .6 Nameplates.
  - .1 Locate to facilitate easy reading and identification from operating floor.
  - .2 Provide for nameplates on hot and/or insulated surfaces.
  - .3 Do not paint, insulate or cover.

### **3.3 SEQUENCE OF OPERATIONS**

- .1 Boiler Controller shall control the operations of the boilers.
- .2 The boiler will be operated on an Outside Temperature Schedule (OTS) with the boiler supply water temperature varied from (65 °C to 87.7°C) as the outside temperature falls from (15.5°C to -12.2°C).
- .3 The boilers will be operated on a lead/lag basis.
- .4 The lead/lag status of the boiler will be switched on a weekly basis.
- .5 If one boiler fails, the second boiler will be started and an alarm will be recorded.
- .6 The boiler controller shall modulate the burner firing rate on both boilers as required to maintain temperature setpoint.

### **3.4 COMMISSIONING**

- .1 Manufacturers representative to provide the following:
  - .1 Start up and burner adjustment services.
  - .2 Commissioning of boiler control sequencing.
  - .3 Commissioning and Certification of installation.
  - .4 Carry out on-site performance verification tests.
  - .5 Demonstration of all safety devices in presence of owner's representative.

- .6 Provide one (1) day, on-site training session to staff to demonstrate operation and maintenance.
  
- .2 Provide Departmental Representative at least 48 hours notice prior to inspections, tests, and demonstrations. Submit written report of inspections and test results. Report shall include static verification, pre-functional testing, and functional testing documentation.

END