

**Halifax Regional Centre For Education**

**Purchasing Division**

**TENDER # 3957  
Natural Gas Conversion**

**Addendum #1**

**May 29<sup>th</sup>, 2018  
3:00 P.M.**

To: Bidders

From: Don Walpola, Buyer

Pages: 1 including cover

Phone: 464-2000(ext. 2223)

**The bid documents shall be amended and new drawings and clauses added, and shall become part of the contract documents as follows:**

**Clarifications:**

**Question 1:** It appears this tender is a supply only, but moving the boilers to a designated storage area and start up after the boilers are installed must be included in the tender price? Please confirm?

Will there be a separate tender for the boiler installation?

**Answer 1:** They should carry the price to ship the boilers to site. The contractors should be ready to receive them. Start up and commissioning is written in the specifications.

**Question 2:** We would like to bid as approved equal to the specified Clearfire-C CFC1500 manufactured by Cleaver Books, the Endura EDR1500 manufactured by Fulton. Both of these boilers have heat exchangers that are fabricated from Duplex Stainless Steel, and have a zero flow requirement.

**Answer 2:** Fulton EDR 1500 has been approved as an alternate.

***This addendum does not change the closing date and time of this tender.***

**End of Addendum #1**

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PLEASE SIGN BELOW AND RETURN WITH BID DOCUMENTS:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

# HALIFAX REGIONAL CENTRE FOR EDUCATION

## INVITATION TO QUOTE – HRCE #3957

### Natural Gas Conversion-Boiler Purchase

### Joseph Howe Elementary School

Closing Date: June 4<sup>th</sup> 2018  
Closing/Opening Time: 2:00:00 P.M.

Closing Location:  
Halifax Regional Centre For Education  
33 Spectacle Lake Drive  
Dartmouth, N.S. B3B 1X7

Substantial Completion Date:  
Delivery by June 29<sup>th</sup>, 2018

HRCE Contacts:  
Don Walpola, Buyer  
Tel: (902) 464-2000 #2223  
Fax: (902) 464-0161  
Email: [dwalpola@hrsb.ca](mailto:dwalpola@hrsb.ca)

School Location:  
Joseph Howe Elementary School  
2557 Maynard Street  
Halifax, Nova Scotia  
B3K 3V6

Operations Contact:  
Tyler Bell, Energy Manager  
Tel: (902) 464-2000 #5119  
Email: [tbell@hrsb.ca](mailto:tbell@hrsb.ca)

To obtain documents:  
Download tender documents in .pdf format from the School Board's Website:

<http://www.hrsb.ca/about-HRCE/financial-services/purchasing/tenders/tender-listing>

Facsimile and e-mail bids will not be accepted for this ITQ.

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**1. Invitation**

- .1 Halifax Regional Centre for Education invites selected Bidders to bid on the following:
- .1 The supply of boilers and accessories for Joseph Howe Elementary School.
  - .2 Supply of commissioning, training, start-up and reporting services including close out documentation.
  - .3 Supply and commissioning of boiler multi-boiler controller and BACnet gateway.
    - Provide shipping and delivery to the school.
  - .4 Include off-loading at the school.
  - .5 Provide warranties as indicated.
    - Warranty to commence at turn-over / acceptance.
    - Parts and labour warranty to be 24 months, or 18 months from acceptance, whichever comes first.
    - Extended warranty on other components per specifications.
- .2 Required delivery by the 29<sup>th</sup> June, 2018

**2. List of Drawings**

- 2.1 N/A

**End of Section 00 00 15**

**Project:** ITQ HRCE #3957  
Natural Gas Conversion-Boiler Purchase  
Joseph Howe Elementary School

**Owner:** Halifax Regional Centre For Education  
33 Spectacle Lake Drive  
Dartmouth, NS B3B 1X7

**Consultant:** MCW Maricor  
7051 Bayers Road, Suite 102  
Halifax, NS, B3L 2C1  
Tony Meisner, P. Eng  
Tel: 902-876-3182  
Email: tmeisner@mcw.com

## 1. Invitation:

### 1.1. Bid Call

**1.1.1.** The Halifax Regional Centre For Education will receive offers in the form of a bid from Bidders signed under seal, executed, and dated on or before **the date and time specified below:**

**1.1.2. Closing at 2:00:00 p.m., local time on June 4<sup>th</sup>, 2018** and delivered to:

**1.1.2.1.** Halifax Regional Centre For  
Education 33 Spectacle Lake  
Drive Dartmouth, NS B3B 1X7  
Attention: Don Walpola,  
Buyer Tel: 902-464-2000 ext.  
2223 Fax: 902-464-0161

Offers submitted after the above time shall be returned to the bidder unopened. HRCE deems the correct time to be the time indicated by the phone clock on the receptionist's desk at 33 Spectacle Lake Drive.

**1.1.3.** Submit completed tender documents for above project in sealed envelope marked as follows:

**1.1.3.1.** ITQ HRCE #3957 – Natural Gas Conversion-Boiler Purchase-Joseph Howe Elementary School

**1.1.4.** Bids will be opened at the time indicated on the cover sheet of this document. As of April 1, 2014, Public tender openings are no longer held for any tenders relating to goods, services, or construction for HRCE. A list of bidders and bid amounts will be posted on the Procurement Services website (<http://novascotia.ca/tenders/tenders/ns-tenders.aspx>) shortly following the closing of the tender. All bid submissions are subject to evaluation after opening and before award of contract. The winning bidder and award amount will be posted on the Procurement Services website after award.

**1.1.5.** In the event that the Halifax Regional Centre For Education Central office is closed due to inclement weather or any other reason on the date and time of closing, the Closing date and Time will be extended one (1) business day. Bidders should note that the closure of schools does not necessarily mean closure of the Board's Central office.

**1.1.6.** Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

**1.1.7.** Faxed Bid Submissions **will not** be accepted (only to modify base bid that has been submitted).

**1.1.8.** Bid documents are not transferable. Bids **will not** be received from bidders that did not obtain the bid documents from the Halifax Regional Centre for Education Procurement Department.

## **2. Intent**

**2.1.** The intent of this bid call is to obtain an offer to perform all work associated with Tender Package ITQ HRCE #3957 – Natural Gas Conversion-Boiler Purchase-Joseph Howe Elementary School, for a Stipulated Price Contract in accordance with the Contract Documents.

### 3. Scope of work

3.1. Refer to Section 00 00 15 – Description of Work and List of Drawings.

### 4. Availability

4.1. Bid Documents may be obtained as per the directions on the cover sheet of this document.

4.2. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not confer a license or grant for other purposes.

4.3. The HALIFAX REGIONAL CENTRE FOR EDUCATION is not responsible for accuracy of documents and project postings obtained from any other source.

### 5. Examination

5.1. Upon receipt of Bid Documents verify that documents are complete; notify the Board's Buyer by email to [dwalpola@hrsb.ca](mailto:dwalpola@hrsb.ca) , should the documents be incomplete, or upon finding discrepancies or omissions in the Bid Documents.

5.2. Bidders shall become fully aware of the content of all tender documents for the preparation of the Bidder's offer.

5.3. Bidders will be deemed to have familiarized themselves with the existing site and working conditions and all other conditions which may affect the performance of the work. No plea of ignorance of such conditions as a result of failure to make all necessary examinations will be accepted as a basis for any claims for extra compensation or an extension of time.

### 6. Clarification and Addenda

6.1. Notify Don Walpola, Buyer, by email to [dwalpola@hrsb.ca](mailto:dwalpola@hrsb.ca) no less than **five (5)** working days before Tender Closing of any questions, omissions, errors or ambiguities found in Contract Documents. If HRCE considers that correction, explanation or interpretation is necessary, a reply will be in the form of an addendum, a copy of which will be posted on the [novascotia.ca/tenders](http://novascotia.ca/tenders) and/or HRCE website as applicable, and it is the responsibility of the Bidder to ensure all addenda are received and acknowledged.

- 6.2.** Addenda will be issued no less than three (3) business days before tender closing date and time,  
and will form part of the Contract Documents.
- 6.3.** Verbal answers are only binding when confirmed by written addenda. The HRCE and its representatives shall not be bound by or be liable for any representation or information provided verbally. Information obtained by any other source is not official and will not bind the Halifax Regional Centre For Education.
- 6.4.** Confirm in the tender form (section 00 41 13) that all addenda have been received.

## **7. Product/System Options**

- 7.1.** Where the Bid Documents stipulate a particular product, alternatives may be considered by the Consultant up to five (5) working days before tender closing date and time. Bidders must forward their written requests by email to: [dwalpol@hrsb.ca](mailto:dwalpol@hrsb.ca). The Buyer will relay the requests to the appropriate person(s) for review.
- 7.2.** When a request to substitute a product is made, the Halifax Regional Centre For Education may approve the substitution and will issue an Addendum to known bidders.
- 7.3.** In submission of alternatives to products specified, bidders shall include in their bid, any changes required in the work to accommodate such alternatives. A later claim by the bidder for an addition to the contract price because of changes in work necessitated by use of alternatives shall not be considered.
- 7.4.** The submission shall provide sufficient information to enable the Consultant to determine acceptability of such products.
- 7.5.** Submission of an alternate must provide complete information on required revisions to other work to accommodate each alternate, the dollar amount of additions to or reductions from the Bid Price, including revisions to other Work.
- 7.6.** Alternates must be submitted in above manner; otherwise, they will not be considered.



## 8. Bid Submission

### 8.1. Submissions

- 8.1.1. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- 8.1.2. Bids must be submitted on the **Bid Form** provided by HRCE (Section 00 41 13 – Bid Form). These forms must be completely filled out in ink, with the signature in longhand, and the complete form shall be without interlineations, alterations or erasures. Electronic Bid submissions will not be accepted.
- 8.1.3. The Tender Bid Form to be completed in full. The contract price must be entered in both written words and numerals. Where this bid is requested in both words and numbers, and the two do not represent the identical amount, words shall prevail.
- 8.1.4. Submit the executed offer on the Bid Forms provided, **signed** together with the required bid security (if applicable) in a close opaque envelope, clearly identified with bidder's name, project name and Tender No. on the outside.
- 8.1.5. Improperly completed information, irregularities in the bid security, may be cause to declare the bid informal.

## 9. Accuracy of Referencing

- 9.1. Indexing and cross-referencing are for convenience only.

## 10. Conditions of Tendering

- 10.1. Take full cognizance of content of all Contract Documents in preparation of Tender. Refer to Section 00 41 13 – Tender Form, Subsection 5.0 for a complete list of Contract Documents.

## **11. Preparation of Tender**

- 11.1.** Complete Tender Bid Form (section 00 41 13) provided with Contract Documents in ink. Tender all items and fill in all blanks. Have corrections initialed by person signing Tender. Bidders' are required to provide all information as detailed.

## **12. Amendment or Withdrawal of Tender**

- 12.1.** Tenders may be amended or withdrawn by post, hand or facsimile prior to date and time of closing.
- 12.2.** Amendments shall not disclose either original or revised total price.
- 12.3.** Head amendment or withdrawal as follows:
- 12.3.1.** "[Amendment]/[Withdrawal] of Tender for ITQ HRCE#3957- Natural Gas Conversion-Boiler Purchase— Joseph Howe Elementary School.
- 12.3.2.** Sign and seal as required for Tender, and submit at address given for receipt of Tenders prior to time of Tender Closing.
- 12.3.3.** Use the Tender Price Amendment Form (section 00 41 73)

## **13. Bid Ineligibility (reason for rejection)**

- 13.1.** HRCE may reject a bid which has been received prior to the closing time where:
- 13.1.1.** It is not submitted on the required bid form (00 41 13) included herein.
- 13.1.2.** The bid is submitted by electronic transmission.
- 13.1.3.** There are omissions of significant information that HRCE deems to be significant.
- 13.1.4.** The bid is not signed as required.
- 13.1.5.** The bid has conditions attached which are not authorized by the invitation to bid.
- 13.1.6.** The bid fails to meet one or more standards specified in the invitation to bid.
- 13.1.7.** All addenda have not been acknowledged.
- 13.1.8.** Any other defect which, in the opinion of the Contracting Authority brings the meaning of the bid into question.
- 13.1.9.** The required bid security in the required form is not provided.

#### 14. Communications Affecting Bids

**14.1.** Electronic Transmissions, including, but not limited to facsimile transmission:

**14.1.1.** Bid forms submitted by facsimile and e-mail transmission are not acceptable and will be rejected.

**14.1.2.** Electronic transmissions (facsimile only) modifying bidder supplied information are acceptable when signed by an authorized signatory of the original bid. Submission and receipt of such electronic transmissions is at the risk of the bidder. HRCE assumes no liability for the receipt of the electronic transmission or for their proper inclusion with original bid. There is no requirement for HRCE to follow up upon receipt of an electronic transmission. Electronic submissions will be considered binding on both parties. Electronic submissions must be submitted and received prior to closing time and date specified in the bid documents. HRCE Procurement Department Date and Time stamps will prevail. **HRCE Procurement facsimile number is 902-464-0161.**

#### 15. Right to Accept or Reject any Tender

**15.1.** The HRCE reserves the right to reject any bid in its sole and absolute discretion for any reason whatsoever.

**15.2.** The HRCE specifically reserves the right to reject all bids if none is considered to be satisfactory in the HRCE's sole and absolute discretion and, in that event, at its option, to call for additional bids.

**15.3.** Without limiting the generality of any other provision herein, the HRCE reserves the right to accept or reject any Tender that:

**15.3.1.** contains any irregularity, informality, condition or qualification.

**15.3.2.** is not accompanied by the required tender security documents.

**15.3.3.** is not properly signed by or on behalf of the bidder.

**15.3.4.** contains an alteration in the fee schedule that is not initialed by or on behalf of the bidder.

15.3.5. incomplete or ambiguous; or

15.3.6. does not strictly comply with the other requirements contained in these instructions.

15.4. Notwithstanding the above, the HRCE shall be entitled, in its sole and absolute discretion, to waive any irregularity, informality or non-conformance with these instructions in any proposal received by the HRCE. The Halifax Regional Centre For Education reserves the right to reject any or all tenders, or to accept any tender, or portion thereof, deemed in its best interest.

15.5. In the event that a number of Bidders submit bids in substantially the same amount, the HRCE may, at its discretion, call upon those Bidders to submit further bids.

15.6. No term or condition shall be implied, based upon any industry or trade practice or custom or in a practice or policy of the HRCE or otherwise, which is inconsistent or conflicts with the provisions contained in these Instructions.

## 16. Bid Form Requirements

### 16.1. Bid Submission

16.1.1.1. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.

16.1.1.2. Bids must be submitted on forms provided by the Board. These forms must be completely filled out in ink or by typewriter, with the signature in longhand, and the completed form shall be without interlineations, alterations or erasures.

16.1.1.3. Submit the executed bid on the bid forms provided, signed and corporate sealed together with the required security in a closed opaque envelope, clearly identified with Bidders name, project name on the outside.

16.1.1.4. Improperly completed information, irregularities, in required enclosures may be cause to declare the bid informal.

### 16.1.2. Bid Signing

16.1.2.1. The bid form **must** be signed and under the seal by a duly authorized signing officer(s) in their normal signatures.

## **17. Offer Acceptance / Rejection**

### **17.1. Duration of offer**

**17.1.1.** Bids shall remain open to acceptance and shall be irrevocable for a period of sixty (60) days after the bid closing date.

### **17.2. Award/Selection/Acceptance of Offer**

**17.2.1.** In the evaluation of a bid, the Contract Authority will consider, but not be limited to, the following. The order of the criteria as listed does not indicate any relative importance.

**17.2.1.1.** Compliance with Bid requirements.

**17.2.1.2.** Bid price submitted.

**17.2.1.3.** Bids, or parts of Bids, which exceed stated requirements to the benefit of the Owner.

**17.2.1.4.** Acceptability of materials proposed for the work.

**17.2.1.5.** The qualifications and experience of the bidder with similar projects in size and scope.

**17.2.1.6.** References.

**17.2.1.7.** Total cost to Owner which may include impacts to capital and/or operating costs of other components of the project.

**17.2.1.8.** Delivery schedule of equipment.

**17.2.1.9.** Completion date.

**17.2.1.10.** Overall quality of Bid presentation.

**17.2.2.** After determination of preferred bidder, consideration will be given to Alternatives and Contract Price Adjustments.

**17.2.3.** The Owner's evaluation of any and all bid submission(s) will be final.

**17.3.** The Halifax Regional Centre For Education reserves the right to accept or reject any or all offers or to accept any offer deemed most satisfactory, The Halifax Regional Centre For Education reserves the right to waive any informality in any other bids.

- 17.4. After acceptance HRCE will issue to the successful bidder, a written bid acceptance and will be issued an official purchase order.

## 18. Payment Milestones

- 18.1. 50% - upon approval of shop drawings  
18.2. 45% - upon delivery of equipment  
18.3. 5% - upon completion of commissioning/startup

## 19. Taxes

- 19.1. The General Conditions of the Contract state that the Contractor as of April 1, 1997 and thereafter, the Contractor is to pay all Harmonized Sales Tax.
- 19.2. The Halifax Regional Centre For Education is not exempt for Harmonized Sales Tax (HST) purposes. As a result, the aggregate amount of the bid for contracts is subject to HST; however, **prices submitted shall not include HST.**
- 19.3. The HST payable by the Board will be added as a separate item during the processing of progress payments and therefore **HST will not appear as a cost in the aggregate amount of the tender.**
- 19.4. Bidders are advised that they may be eligible to claim an Input Tax Credit (ITC) for a portion of the HST paid in relation to the Contract requirement of the Government of Canada.
- 19.5. Bidders are to note that prices indicated on the Bid Form and the appendices to the Bid Form shall not include Provincial Sales Taxes, the Federal Goods and Services Tax or the Harmonized Sales Tax.
- 19.6. Exclude Harmonized Sales Tax in Tender Contract Price, unless requested to do otherwise.

**1. Salutation:**

**To:** Halifax Regional Centre For Education  
33 Spectacle Lake Drive, Dartmouth NS  
Attn: Don Walpola, Buyer

**For:** ITQ HRCE #3957  
Natural Gas Conversion-Boiler Purchase  
Joseph Howe Elementary School

**From:**

**Address:**

**E-Mail:**

**Phone:**

**Fax:**

**Person Signing for Firm:**

**Position:**

**2. Bidder Declares:**

- 2.1. That this tender was made without collusion or fraud.
- 2.2. That the proposed work was carefully examined.
- 2.3. That the Tenderer was familiar with local conditions.
- 2.4. That Contract Documents and Addenda were carefully examined
- 2.5. That all the above were taken into consideration in preparation of this Tender.

**3. Bidder Agrees:**

- 3.1. To provide all necessary equipment, tools, labour, incidentals and other means of construction to do all the Work and furnish all the materials of the specified requirements which are necessary to complete the Work in accordance with the Contract and agrees to accept, therefore, as payment in full the Lump Sum Price stated in Subsection 6 hereunder.

- 3.2. Carefully examined the site of the work described herein; become familiar with local conditions and the character and the extent of the work; carefully examined every part of the proposed Contract and thoroughly understands its stipulations, requirements and provisions.
- 3.3. Determined the quality and quantity of materials required; investigated the location and determined the source of supply of the materials required; investigated labour conditions; and has arranged for the continuous prosecution of the work herein described
- 3.4. To be bound by the award of the contract and if awarded the contract on this bid to execute the required contract within ten (10) days after notice of award.
- 3.5. Noted that the Harmonized Sales Tax is **excluded** from the "Contract Price".
- 3.6. School/Work site access control: Contractor's employees shall always report to the main office of a school, indicate who they are and state their purpose on site prior to starting any work in the school. Contractor is not permitted to work on the school site without School Board's assigned representative on site unless authorized by School Board Operations representative. Typical hours of work are daylight hours. Working in occupied schools will be determined by the Operations representative. No work shall be conducted on weekends or holidays without specific approval of the Operations Representative
- 3.7. Hours of work – All work shall be carried out during regular business hours unless otherwise indicated below or in writing by the Manager of Operations or designate. Hours of work shall comply with local ordinances and bylaws for each site

#### 4. Owner Agrees

- 4.1. To examine this bid and in consideration, therefore, the bidder agrees not to revoke this bid:
  - 4.1.1. until some other bidder has entered into the contract with the Halifax Regional Centre For Education for the performance of the work and the supply of the materials specified in the notice inviting bids; or in the Information to Bidders, or
  - 4.1.2. until sixty (60) days after the time fixed in the Information to Bidders for receiving bids has expired,



**4.1.3.** Whichever first occurs; provided, however, that the bidder may revoke this bid at any time before the time fixed in the Information to Bidders for receiving bids has expired upon receipt by the HRCE from the bidder of written notice of such revocation before said time has expired.

**5. Contract Documents include:**

- 5.1.1.** Specifications Index & List of Contents – Section 00 00 01
- 5.1.2.** Description of Work and List of Drawings – Section 00 00 15
- 5.1.3.** Information to Bidders – Section 00 21 13
- 5.1.4.** Tender Form – Section 00 41 13
- 5.1.5.** Tender Price Amendment Form (if applicable) Section 00 41 73
- 5.1.6.** Appendix A - HRCE General Terms & Conditions
- 5.1.7.** Specifications of Work (all applicable sections)
- 5.1.8.** Drawing(s) – as applicable
- 5.1.9.** Addendum/Addenda issued by HRCE as applicable
- 5.1.10.** HRCE Purchase Order

**6. Fee Submission - Contract Price:**

**6.1.** The undersigned Tenderer, having carefully read and examined the aforementioned Contract Documents prepared by the Halifax Regional Centre For Education hereby accepts the same as part and parcel of the Contract herein referred to, and having carefully examined the locality and Site of Works and having full knowledge of the work required and of the materials to be furnished and used, does hereby Tender and offer to enter into a contract to perform and complete, the whole of the said works and provide all necessary labour, plant, tools, materials and equipment and pay all applicable taxes, as set forth and in strict accordance with the Specifications, Drawings and other Contract Documents and to do all therein called for on the terms and conditions and under the provisions therein set forth for the following:

**6.2. LUMP SUM BID PRICE – Boiler – Supply and Delivery**

\_\_\_\_\_ /100 Dollars (\$ \_\_\_\_\_ )  
(HST EXCLUDED)

**6.3 PRICE BREAKDOWN (To Match Total Bid Price)**

- .1 Equipment Supply \$ \_\_\_\_\_
- .2 Start-up, Commissioning, Training, O&M Manuals  
(min. 5% of total cost) \$ \_\_\_\_\_

**6.4 ITEMIZED PRICES (Included in Bid Price)**

- .1 Warranty: 24 months from delivery  
or 18 months from acceptance (to  
allow for construction installation) \$ \_\_\_\_\_

*Contract Price to be completed in written form on the lines provided above, with cents expressed as numerical fraction of a dollar. Contract price to be completed in numerical form on the line bounded by parenthesis above, with cents expressed as a decimal of a dollar. **WHERE THERE IS A CONFLICT, WRITTEN WORD WILL GOVERN.***

**Notes:**

- **Tender bid submission to reflect fixed firm pricing.**
- **All information requested in the Tender Bid form will form part of the evaluation.**
- **Delivery of boiler to Joseph Howe Elementary School, FOB destination, pricing to include all shipping, freight, and handling charges.**
- **Bidders are required to provide all applicable equipment technical specification and data sheets with their bid submission.**

Bidder's HST Registration Number \_\_\_\_\_

## 7. Supporting Information

### 7.1. References: (Minimum of three)

- The Bidder to furnish particulars of at least three contracts successfully completed or currently being carried to completion. The projects quoted should preferably be approximate in nature to the work now tendered for and be of comparable or greater size.

Contact Name & Phone #	Date	Contract Value
_____	From _____ to _____	\$ _____
_____	From _____ to _____	\$ _____
_____	From _____ to _____	\$ _____
_____	From _____ to _____	\$ _____

## 8. Proof Of Competency Of Bidder

- 8.1. Any bidder may be required to furnish evidence satisfactory to the Owner that he and his proposed sub-contractors have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner.

**8.1.1. Sub-Contractors:** The Bidder to provide the name and address of each major sub-contractor used in making up this tender. Only one sub-contractor shall be named for each part of the work to be sublet.

<u>Subcontractor/Suppliers/Manufacturers</u>	<u>Service/Material</u>

**8.1.2. Project Personnel:** The tenderer to include below, the names, qualifications and previous experience of those people who will be directly involved with the project. The names shall, for example, include foremen, superintendent, project engineer and/or project manager, labourers and trade staff.

Name	Position	Qualifications/Experience

**8.2. Completion Time:**

- Bidder agrees to complete the Work within \_\_\_\_\_ weeks of written notification of Award

**9.1 Addenda Acknowledgment**

I/We have received and noted the following addenda for ITQ HRCE #3957

Natural Gas Conversion-Boiler Purchase Only– Joseph Howe Elementary School

<b>Addendum #</b>	<b>Dated</b>	<b># of Pages</b>
_____	_____	_____
_____	_____	_____
_____	_____	_____

**Signature** \* The undersigned Bidder declares that this bid is made without connection with any other person(s) submitting bids for the same work and is in all respects fair and without collusion or fraud.

**SIGNATURE:**

SIGNED AND DELIVERED  
in the presence of:

**CONTRACTOR**

\_\_\_\_\_  
Company name

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signature of Signing Officer

\_\_\_\_\_  
Name and Title (printed)

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***HRCE is directly responsible for the safety of its students and staff. Should contractors be required to work in or on school property while children are present, it is a MANDATORY HRCE REQUIREMENT that contractors assign the work to employees and/or sub-contractors who DO NOT have a CRIMINAL RECORD and who ARE NOT LISTED ON THE CHILD ABUSE REGISTRY. Failure to comply with this requirement may result in immediate contract termination.***

***By checking the "Agreed" box you are confirming that you understand and will abide by this mandatory HRCE requirement.***

***Agreed***

***\*Note: Bids submitted **must** be signed by a duly authorized officer or agent.***

**End of Section 00 41 13**

**Note:** to be completed and forwarded for each Bid Price adjustment prior to bid closing time and date as detailed on the Cover Sheet of the tender document and related Addendum.

**Lump Sum Price Adjustment – Section 00 41 13 Tender form, Article 6 Contract Price**

Increase Bid by		Decrease Bid By	
Amount (excluding HST)	\$	Amount (excluding HST)	\$
HST	\$	HST	\$
Total Amount (including HST)	\$	Total Amount (including HST)	\$

**It is the Bidder's responsibility to ensure the table above is legible**

**Attachments included:**             no             yes    (✓ one)

If yes above, check ✓ and complete information regarding attachments

**Revised Bid Form:**    Dated \_\_\_\_\_ # of pages \_\_\_\_\_

**Other, Specify** \_\_\_\_\_

\_\_\_\_\_

Dated \_\_\_\_\_ # of pages \_\_\_\_\_

Total number of pages (including this form) \_\_\_\_\_

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**Submitted by:**

\_\_\_\_\_

**Company Name** (please print as it appears on original tender envelope)

\_\_\_\_\_

**Authorized Bidder's name** (please print as it appears on Bid Form)

\_\_\_\_\_

**Authorized Bidder's Signature**

## 1. General

- a. These Terms and Conditions, shall apply only to those documents (Quotations, Request for Proposals and Tenders, herein referred to as Public RFX or RFX) that reference them specifically. In the event of any conflict or disagreement between these Terms and Conditions and the RFX documents, the RFX documents have precedence and will be assumed to be correct.
- b. These Terms and Conditions are intended to cover a wide range of procurements, including goods and services. As such, not all clauses will be applicable in all situations. If Suppliers have questions regarding any of these Terms and Conditions, they should contact the Halifax Regional Centre For Education (HRCE) Procurement Division. To satisfy special requirements, supplementary Terms and Conditions may also apply to some acquisitions. If this is the case, the RFX documents will reference any such documents, in addition to these Terms and Conditions.
- c. For the purpose of these Terms and Conditions HRCE intends to only contract with responsible Suppliers who are in the business of providing the goods and/or services submitted upon, and can provide proof that they can furnish satisfactory performance based on past work experience with HRCE, other companies, or government agencies and have the financial managerial, and resource capabilities for the size of project bid upon. Satisfactory performance includes meeting all of the requirements of the various federal and provincial regulations and agencies for the completion of work and making payment to sub-contractors in a timely basis.
- d. All of the terms, conditions and/or specifications stated or referenced in the Solicitation are assumed to be accepted by the Bidder and incorporated in the Bid.

## 2. RFX Documents

- a. RFX Documents should be obtained as indicated on the Cover Sheet of the tender document.
- b. While HRCE has tried to ensure accuracy in the RFX documents, it is not guaranteed or warranted by HRCE to be accurate, nor is it necessarily comprehensive or exhaustive.
- c. HRCE cannot ensure the accuracy of RFX documents obtained from any other source. (i.e. Construction Association of Nova Scotia (CANS), Nova Scotia Electronic Tendering Bulletin Board, Project Consultants, etc.).
- d. All inquiries to this RFX are to be directed, in writing, to HRCE Procurement Division representative indicated in the RFX documents. Information obtained from any other source is not official and will not bind HRCE.
- e. HRCE will assume that all Suppliers have resolved any questions they might have about the RFX and have informed themselves as to existing conditions and limitations, site restrictions, etc. before providing a RFX submission.
- f. Nothing in the RFX is intended to relieve Suppliers from forming their own opinions and conclusions with respect to the matters addressed in the RFX or its associated documents.
- g. In the event that HRCE Regional Office (33 Spectacle Lake Drive, Dartmouth) is closed (this includes partial day closures) due to inclement weather on the date and time of the RFX closing, the closing date and time will be extended one (1) business day. Bidders should note that closure of Schools does not necessarily mean the closure of the Board's Regional Office. Closures are detailed on HRCE website.



3. **Verbal instructions:** Any changes to RFX call, specifications, terms and conditions shall be stated in writing. Verbal statements made by employees or representatives of HRCE, whether or not they appear to have the proper authority, shall not be binding on HRCE.
4. **Addenda:** HRCE reserves the right to modify the terms of the RFX documents prior to closing, at its sole discretion by addenda.
  - a. HRCE Procurement Division will make every effort to ensure the information provided on HRCE.ca is complete and accurate, please report any omissions or discrepancies to the Procurement Division immediately. **Any questions or requests for clarification arising from omissions, discrepancies, or ambiguities, must be made in writing no later than five(5) working days prior to the closing date, not including the closing date.** Replies to requests for clarification, if required, will be made in the form of written addenda, copies of which will be posted on www.HRCE.ca/tender no later than three (3) working days prior to the date of closing, not including the closing date.
  - b. By downloading files from the www.HRCE.ca, you will automatically become registered for the applicable RFX. HRCE Procurement Division will make reasonable efforts, strictly as a courtesy, to directly inform registered Suppliers of any addenda, **however it is the sole responsibility of each registered Supplier to ensure that they have all the documents associated with any RFX and, to this end, every registered Supplier should review HRCE Tender Web Site daily.** These documents must be downloaded from the www.HRCE.ca/tender or obtained from HRCE Procurement Division, as applicable. Suppliers must acknowledge receipt of all addenda(s) with their RFX Submission.
5. **Suppliers Responsibility:** Suppliers are solely responsible for their own expenses in preparing, delivering or presenting a RFX and for subsequent negotiations, if any, with HRCE. It will be the responsibility of the Supplier to acquire at the Suppliers cost, any RFX documents as indicated on the Cover Sheet of the tender document.
6. **Existing Conditions:** Suppliers will be deemed to have familiarized themselves with the existing conditions which may affect the performance of required goods, services and construction. No plea of ignorance of such conditions as a result of failure to make all necessary examinations will be accepted as a basis for any claims for extra compensation or an extension of time. Suppliers are to ensure that they understand the expected use for the requested goods, service and construction and submit their RFX submission accordingly.
7. **RFX Submissions**
  - a. RFX will close at the time, date and location specified in the RFX documents (Atlantic Time Zone).
  - b. All RFX submissions must be received in their entirety on or before the closing time specified. Suppliers are responsible for ensuring that their RFX submission, however submitted, is received on time and at the location specified.
  - c. RFX Submissions must be submitted on the forms provided or in such format as directed in the RFX documents. These forms must be legible, complete, filled out in ink, or by typewriter, with

- the signature in longhand and the completed form shall be without interlineations, alterations or erasures.
- d. If an electronic transmission (i.e. Facsimile, e-mail or HRCE.ca upload) can be accepted, as detailed in the applicable RFX documents, it is the responsibility of the Supplier:
    - i. to ensure that the submissions are delivered on or before the closing time and date shown on the RFX documents;
    - ii. that the correspondence is legible and properly transmitted; and
    - iii. that the name and number of the RFX is clearly displayed.
  - e. Electronic transmission of a RFX submission cannot be used where original documents are required, e.g. bid bonds, certified cheques, samples, etc., or as may be otherwise stated in the RFX documents.
  - f. **Sealed RFX submissions** must be delivered to HRCE Receptionist, 1st floor, 33 Spectacle Lake Drive, Dartmouth, Nova Scotia, on or before the closing time and date shown on the RFX documents. The RFX Submission is to be submitted on the provided forms, signed (together with the required RFX security as applicable) in a sealed opaque envelope, clearly identified with Suppliers name, RFX identification number and name, and closing date on the outside of the envelope. RFX Submissions are date and time stamped upon receipt at the Procurement Division (not at any other location) by the Procurement date time stamp. Any submission received after the closing date and time shown on the RFX documents will not be accepted and will be returned to the Supplier unopened and deemed non-compliant.
  - g. **Facsimile submissions** received are date and time stamped by the Procurement Division Facsimile, no other time stamp will be considered. A facsimile submission received after the closing date and time shown on the RFX documents will not be accepted and shall be deemed non-compliant. **The facsimile number for the Procurement Department of HRCE is (902) 464-0161. Do not send RFX correspondence to any other fax number.**
    - i. Where specified, facsimile submissions are accepted for the convenience of the Supplier; HRCE cannot ensure the confidentiality or error-free receipt of facsimile submissions.
  - h. **Amendments/Withdrawn Submissions**
    - i. Submissions may be withdrawn or amended by written request (on company letterhead or equivalent), prior to RFX closing date and time, but cannot be altered or changed in any way after the RFX closing.
    - ii. Facsimile transmissions modifying supplier provided information are acceptable when signed by a duly authorized officer or agent. Submission of such electronic transmissions is at the risk of the Supplier. HRCE assumes no liability for the receipt of the electronic transmissions or their proper inclusion with original RFX submission. An electronic submission must be submitted prior to closing time and date specified in the RFX documents.
    - iii. An amendment to a RFX submission replaces any other RFX submission amendment previously submitted by the supplier; only the last of any RFX submission amendment received will be accepted.
  - i. All RFX submissions must be signed by an authorized representative of the entity.

- j. HRCE's time clocks will be assumed to be correct in the event of dispute.
- k. HRCE reserves the right in its sole discretion to clarify any RFX submission after closing by seeking further information from that Supplier, without becoming obligated to clarify or seek further information from any or all other Supplier. However, Suppliers are cautioned that any clarifications sought will not be an opportunity either to correct errors or change their Bids in any substantive manner.

**8. Brand Name:** Some terminology may be used that would imply or denote a particular supplier. Brand names may be utilized to designate the type and quality of the product requested. Such usage shall not to be construed as restrictive in any way. Suppliers must be prepared to provide samples if required.

**9. Substitute**

- a. If the Supplier is offering an equivalent (similar) substitute product to those specified, unless a specific product is requested, the supplier must clearly identify this substitution and supply the manufacturer's name, product number and provide any technical information required so that HRCE can determine the acceptability of the substitute.
- b. HRCE reserves the right to inspect or test any product bid to determine equivalency, and may require demonstrator or sample items in order to be able to evaluate the items proposed.
- c. HRCE shall be the sole judge of the acceptability of any substitute or proposed equivalent.
- d. Specifications may, for technical or logistical reasons, require that the items specified be supplied without substitution.

## 10. Warranty

- a. The supplier must describe the duration, type (e.g. on-site, depot, ship-in or carry-in) and terms of the manufacturer's warranty on all goods. If the supplier provides any additional/supplementary warranty coverage, describe this as well.
- b. If warranties can be upgraded or extended, identify the upgrade costs separately. Do not include warranty upgrade or extension costs in the price unless the RFX documents specifically states that the upgrade is a mandatory requirement.

## 11. Pricing

- a. All prices must be extended and totaled, where practical to do so. RFX Submission may be rejected as incomplete if total figures are not provided. In the case of an error in the extension of prices, the unit prices shall prevail.
- b. Prices must be in Canadian funds, and shall include all shipping, handling, freight, offloading, duty, insurance and any other charges, which are applicable at time RFX is awarded (FOB – Destination). HRCE will not assume responsibility for any goods or services until they have been delivered to the destination(s) specified in the Solicitation. It is the responsibility of the Supplier to find out from the appropriate authorities what rates and charges are applicable to this RFX. No extra charges will be paid by HRCE.
- c. In the event that a number of Suppliers provide submission in substantially the same amount, HRCE may, at its discretion, call upon those Suppliers to submit further bids.

**12. Permits and Taxes:** It is the responsibility of the Supplier to ensure that quotations include all taxes, permits, and other charges required to supply the goods, services and construction. The successful Supplier is to comply with all codes, regulations, and by-laws and all government and applicable standards pertaining to the work and job-site including, and not limited to, the Nova Scotia Occupational Health and Safety Act and Regulations. HRCE is required to pay a Harmonized Sales Tax (HST) at a rate specified by the Province of Nova Scotia. This tax is to be shown as a separate line item.

## 13. Standards

- a. All goods, services and construction supplied to HRCE shall, when standards are available, be certified in accordance with the applicable code(s), but not limited to:
  - i. Canadian Standards Association;
  - ii. Canadian Government Standards HRCE;
  - iii. Underwriters Laboratories of Canada; and
  - iv. And all applicable Federal, Provincial and Municipal regulations and acts.
- b. HRCE reserves the right to discontinue the purchase of any product/service that does not continue to meet the applicable standard(s).

**14. Inspection:** HRCE reserves the right to inspect any goods, services or construction supplied either during or after manufacture and delivery, and shall be the sole judge as to the acceptability of goods, services and construction to meet the needs of HRCE and fulfills the requirements as specified.

**15. Rejection of RFX Submissions/Compliance:**

- a. Failure to comply with any of the mandatory terms or conditions contained or referenced in the RFX documents shall result in the rejection of the RFX submission.
- b. HRCE specifically reserves the right to accept or reject any or all RFX submission and implies no obligation on HRCE to accept any RFX submission, a portion of any RFX submission or any RFX submission. HRCE reserves the right to cancel any RFX in its entirety and shall not be responsible, in any manner, for expenses incurred by the Supplier for preparing a RFX submission. HRCE may award all or a portion of the work to one or more Suppliers. Without limiting the generality or any other provision hereof, HRCE reserves the right to reject or accept any RFX submission:
  - i. that contains any irregularity or informality;
  - ii. that is not accompanied by the security documents required;
  - iii. that contains an alteration in the quoted price that is not initialed by the or on behalf of the Supplier;
  - iv. that is incomplete or ambiguous;
  - v. contains clauses additional to the RFX that are "qualified" or "conditional"; and/or
  - vi. that does not strictly comply with the requirements contained in these instructions.
- c. HRCE reserves the right to waive minor non-compliance where such non-compliance is not of a material nature in its sole and absolute discretion, or to accept or reject in whole or in part any or all RFX submissions, with or without giving notice. Such minor non-compliance will be deemed substantial compliance and capable of acceptance. HRCE will be the sole judge of whether a RFX submission is accepted or rejected.
- d. HRCE reserves the right to accept or reject any or all RFX submission, not necessarily accept the lowest priced RFX submission, or to accept any RFX submission which it may consider to be in its best interest.

**16. Evaluation criteria:** If applicable, award of the RFX will be based on "Best Value" (which includes, but not limited to; price, discounts, product specifications, warranty, delivery, reference checks, etc.

**17. Cancellation/no award**

- a. Issuing a RFX implies no obligation on HRCE to accept any submission, or a portion of any submission. The lowest or any RFX submission will not necessarily be accepted.
- b. RFX's may be cancelled in whole or in part by HRCE in its sole discretion when:
  - i. the RFX submission price exceeds the funds allocated for the purchase;
  - ii. there has been a substantial change in the requirements after the RFX has been issued;
  - iii. information has been received by the RFX after the RFX has been issued that the RFX believes has substantially altered the procurement;
  - iv. there was insufficient competition in order to provide the level of service, quality of goods or pricing required.
- c. If no compliant RFX submission is received in response to a RFX, the RFX reserves the right to enter into negotiations with one or more suppliers in order to complete the procurement.
- d. HRCE will be the sole judge of whether there is sufficient justification to cancel any RFX.
- e. No action or liability will lie or reside against HRCE in its exercise of its rights under this section.

**18. Eligibility and Conflict of Interest**

- a. A RFX Submission may not be eligible for acceptance if current or past corporate or other interests of the Bidder may, in HRCE's opinion, give rise to a conflict of interest in connection with a project.
- b. Suppliers are cautioned that acceptance of their RFX submission may preclude them from submitting a response on subsequent phases where a conflict of interest may arise. Suppliers should study the project implementation strategy to determine whether or not they plan to submit response on subsequent phases.
- c. If the RFX submission covers the first phase of what may prove to be a multi-phased project, the successful Supplier on the initial phase may be permitted to respond on subsequent phases as long as, in HRCE's opinion, no conflict of interest would be created in performance of the work by that Supplier.
- d. Sub-contracting to any firm or individual whose current or past corporate or other interests may, in HRCE's opinion, give rise to a conflict of interest in connection with this bid will not be permitted. This includes, but is not limited to, any firm or individual involved in the preparation of the RFX documents.

**19. Disputes:** In case of dispute as to whether or not an item or service quoted or delivered meets RFX requirements, the decision of HRCE, or its authorized representative, shall be final and binding on all parties.

**20. Exceptions:** A RFX submission shall be considered an agreement to all terms and conditions provided herein and in various RFX documents, unless specifically noted otherwise in the RFX documents.

**21. Irrevocable Offer:** A RFX submission represents an irrevocable offer, unless otherwise stated in the RFX documents and shall be valid for a period of ninety (90) days following the closing date for RFX submissions.

**22. Patent right and royalties:** The successful Supplier shall pay all royalties and patent license fees required for the performance of the work. The successful Supplier shall hold HRCE harmless from and against claims, demands, losses, costs, damages, action suits or proceedings arising out of the successful Supplier's performance of the Contract which are attributable to an infringement or an alleged infringement of a patent of invention by the successful Supplier or anyone for whose acts the successful Supplier may be liable.

**23. Assignment:** The successful Supplier shall not assign the Contract (or portion thereof) nor sub-contract without the prior written consent of HRCE, consent shall not be unreasonably withheld.

**24. Purchase Order:** Work by the Supplier will begin only with the issuance of HRCE's official purchase order and/or any Contract Documents as applicable. The purchase order number must appear on any/all invoices covering same. No work is authorized until the successful Supplier has received an official HRCE

purchase order and/or required Contract Documents. HRCE accepts no responsibility for any work performed prior to the issuance of a purchase order and/or required Contract Documents.

## 25. Delivery

- a. Where the RFX Document includes a mandatory delivery schedule, HRCE will assume that the Supplier can meet the requested schedule and is satisfied that the goods or services required will be available for delivery on the requested date(s).
- b. If Suppliers wish to specify a delivery schedule different from that requested in the RFX document, they must provide specific delivery dates or a schedule in calendar days from the date a Purchase Order is issued. RFX Submission that do not meet the delivery schedule as requested in the RFX documents may be rejected.
- c. Time is of the essence, and supplier's delivery schedule is legally binding. HRCE reserves the right to assess penalties or cancel awards to Suppliers who fail to meet their stated delivery or completion dates.

## 26. Invoices

- a. All invoices are to be submitted quoting the Purchase Order number (as applicable). The H.S.T. number must be shown on each invoice. Invoices must include a description of the goods, services and construction provided with HRCE Work Order Numbers (where applicable). Invoices must also clearly indicate list price, discounts offered and net price, if applicable. All invoices are to be forwarded to:

**Halifax Regional Centre For  
Education 33 Spectacle Lake  
Drive Dartmouth, NS, B3B 1X7  
Attn: Accounts Payable**

- b. All Suppliers are required to maintain their tax status in good standing. In this regard, Suppliers are advised that verification of good standing with the Nova Scotia Minister of Finance and Revenue Canada (GST/HST) may be carried out prior to the award of a contract to a successful Supplier.
- c. In order to maximize efficiencies, as well as to be more environmentally friendly, vendor payments are now being paid via EFT (Electronic Funds Transfer) direct deposit to vendor bank accounts. A vendor direct deposit form must be filled out with banking information for EFT payments.

## 27. Payment:

- a. HRCE's normal payment terms are thirty (30) days from acceptance that the goods, services and construction meet the specifications. Alternative payment schedules may be proposed and are to be shown as an option and list any additional discounts to HRCE. Early payment discount terms (minimum period ten (10) days) may be considered in the evaluation of the RFX response. Payment of term discount invoices will be calculated from the date of the invoice or goods have been received, whichever is later. Discount terms must appear on the invoice.
- b. The Supplier shall make application for payment at least monthly with the application based on progress or services provided during that month. HRCE will hold back ten percent (10%) of any

payment until the lien periods have expired and the Supplier has provided HRCE with a complete release of any lien registered as a result of any work carried out by the Supplier, or any sub-contractor or supplier to the Supplier.

- 28. Right to offset:** The successful Supplier agrees that HRCE may apply payments for goods, services and construction to any amount owing to HRCE by the Supplier or supplier including any related administration fees.
- 29. Confidentiality:** The Supplier shall keep private, treat as being confidential, and not make public or divulge during, as well as after, the term on this Agreement, any information or material to which the Supplier or staff becomes privy as a result of acting under this Agreement without having first obtained HRCE's consent in writing.
- 30. Freedom of Information and Protection of Privacy (FOIPOP) Act and Personal Information International Disclosure Protection Act (PIIDPA)**
- a. As a public body, HRCE is subject to provincial legislation, Freedom of Information and Protection of Privacy (FOIPOP) Act. RFX submissions and associated documents are subject to disclosure and protection under this legislation. In the event an application for disclosure of information is made under FOIPOP, HRCE is subject to the disclosure and protection of information in accordance with that legislation. Suppliers are recommended to visit the following websites for more information on the Act: <http://www.gov.ns.ca/just/IAP/default.asp> and <http://www.foipop.ns.ca/>
  - b. The Province of Nova Scotia is required to comply with the Personal Information International Disclosure Protection Act (PIIDPA)(S.N.S 2006, c.3). The act creates obligations for the Province of Nova Scotia and its service providers when personal information is collected, used or disclosed. Requirements include limiting storage, access and disclosure of personal information to Canada, except as necessary or otherwise required by law. Suppliers are recommended to visit the following PIIDPA websites for more information on the Act: [http://nslegislature.ca/legc/bills/60th\\_1st/3rd\\_read/b019.htm](http://nslegislature.ca/legc/bills/60th_1st/3rd_read/b019.htm) and <http://www.gov.ns.ca/just/IAP/PIIDPAquest.asp#p01>
  - c. The Supplier acknowledges and confirms that it is a "service provider" as defined in the Personal Information International Disclosure Protection Act, SNS 2006 c. 3 ("PIIDPA"), that the Supplier has read and understands its obligations as a service provider thereunder and that as a service provider It is legally bound by the obligations imposed on it by PIIDPA. It is a condition precedent to HRCE entering into the Agreement with the Supplier that the Supplier irrevocably undertakes covenants and agrees to be bound by and comply with the obligations imposed on it as a service provider under PIIDPA.
  - d. The Supplier further covenants, warranty and represents to HRCE that it will not at any time provide or allow the release of personal information to which it has access in its capacity as a service provider to HRCE in response to any "foreign demand for disclosure" or permit or allow the "unauthorized disclosure of personal information" as each of those terms are defined in PIIDPA.



- e. The Supplier shall implement and strictly enforce security arrangements that will ensure that all personal information that it collects or uses on behalf of HRCE is protected at all times from unauthorized access or disclosure and shall confirm in writing to HRCE, upon request, the details of such security arrangement. The Supplier also agrees to implement and enforce any additional security procedures as may be required by HRCE from time to time to protect the personal information that the Supplier collects on behalf of HRCE. HRCE shall be authorized, upon giving prior written notice to the Supplier, to enter the premises of the Supplier during normal business hours for the purpose of conducting an audit of the security arrangement referenced herein.
- f. All personal information that the Supplier obtains or becomes aware of while providing services to HRCE is not and shall not be or be deemed to be the property of the Supplier. The Supplier acknowledges and agrees that it will not, either directly or indirectly, acquire any rights to use or own any such information other than the right to use it for the sole purpose of fulfilling its obligations to HRCE under the Agreement.
- g. All RFX submissions become the property of HRCE. By providing a RFX submission, the supplier hereby grants HRCE a license to distribute, copy, print or translate the RFX submission for the purposes of the RFX. Any attempt to limit HRCE's right in this area may result in rejection of the RFX submission.
- h. Suppliers RFX submission may be subject to disclosure under the Province's "freedom of information" legislation. By submitting a RFX submission, the Supplier agrees to the appropriate disclosure of the information supplied, subject to the provisions of the governing law. HRCE cannot guarantee the confidentiality of the complete content of any RFX submissions after the procurement has been awarded to the successful supplier.
- i. During the delivery and installation of goods and/or services, the supplier or supplier's staff may have access to confidential information belonging to HRCE. Should this occur, the supplier must ensure that such information is not released to any third parties or unauthorized individuals; failure to comply may result in legal action being taken and/or the supplier's disqualification from any further RFX's issued by HRCE.

**31. Indemnification:** The Supplier shall indemnify and hold harmless HRCE, their agents, representatives and employees from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of, or resulting from the performance of this work, provided that any such claim is caused in whole or in part by the negligent act or omission of the Supplier, and sub-contractor, supplier, licensee, anyone directly or indirectly employed by any one of them or anyone for whose act any of them is liable, regardless of whether or not it is cause in part by a party indemnified hereunder.

**32. Insurance:** Unless otherwise stated, Commercial General Liability Insurance with policy limits of not less than five (5) million dollars (\$5,000,000.00) must be filed with the Procurement Department of HRCE; such insurance shall be in the name of the Supplier and HRCE. The insurance must include non-owned automobile liability with policy limits of not less than two (2) million dollars (\$2,000,000.00). All insurances are to be maintained in good standing for the duration of the Contract.

- 33. Termination for convenience:** HRCE may terminate a contract, in whole or part, whenever HRCE determined that such termination is in the best interest of HRCE, without just cause giving sixty (60) days written notice to the proponent. However, in no event shall the proponent be paid an amount that exceeds the submitted price for the work performed.
- 34. Termination for default:** When the proponent has not performed or has unsatisfactorily performed the contract, HRCE may terminate the contract for default. Upon termination for default, outstanding payment will be withheld at the discretion of HRCE. Failure on the part of the proponent to fulfill the contract obligations shall be considered just cause for termination of the contract. The proponent will be paid for work satisfactorily performed prior to termination, less any excess costs incurred by HRCE in re-procuring and completing the work.
- 35. Workers Compensation:** Prior to commencing the work, the Supplier shall provide a current clearance letter from the Workmen's Compensation HRCE (WCB) and must maintain this coverage during the whole term of the Contract.
- 36. WHMIS:** All controlled products supplies to HRCE must have approved Workplace Hazardous Materials Information System (WHMIS) supplier labels; Material Safety Data Sheets must also be supplied. Failure to comply with this requirement may result in rejection of any shipment, and may result in cancellation of the order and the return of goods to the supplier at the supplier's expense.
- 37. Health and Safety Act:** The Supplier shall take every precaution to ensure that every employee, self-employed person and employer performing work in respect of the project complies with the latest revisions of the Nova Scotia Occupational Health and Safety Act and the Regulations. Halifax Regional School HRCE Occupational Health and Safety Policy BP 303.1, and all other safety measures as required by authorities having jurisdiction.
- 38. Site Safety Plan:** Before being permitted access to the site to commence construction the Supplier may be requested provide HRCE with a written Project Specific Site Safety Plan. The Site Safety Plan provided shall be a written course of action that, through a pre-job evaluation, identifies and sets out specific actions to be taken to eliminate or control hazards associated with the work to be performed and to also deal with concerns or hazards that may develop during the course of the project. This Plan shall include, but not be limited to, identification of safety hazards anticipated during the project, solutions to those hazards, safety procedures, identification of designated safety officers and provision for safe access to the site for HRCE staff and or Consultants. Receipt and acceptance of the safety plan shall be mandatory prior to commencement of work.
- 39. Extension to the Broader Public Sector**
- a. HRCE may choose to allow the Broader Public Sector to purchase goods or services from some RFX's. The Broader Public Sector are generally permitted to purchase from "Standing Offers", which are contracts resulting from a RFX. Other RFXs may also be available to the Broader Public Sector; if so, the Solicitation documents will state this.

- b. By submitting a response to a RFX, the Supplier agrees to extend the same pricing to other eligible Broader Public Sector institutions as per the terms and specifications in the Solicitation

#### 40. Governing Laws and Trade Agreements

- a. Unless the RFX documents specifically state otherwise, the RFX, all submissions, and any subsequent contracts will be construed and interpreted in accordance with the laws of the Province in which the Solicitation was issued.
- b. RFX's subject to the Atlantic Procurement Agreement, the Agreement on Internal Trade, any other inter-provincial trade agreements, or any international trade agreements, will be specifically identified as such in the public notice and/or the Solicitation documents.
- c. Information of any applicable trade or procurement agreements and/or legislation can be obtained by contacting HRCE Procurement Department.
- d. Suppliers agree to comply with all applicable laws, regulations and standards, including all labour, occupational health & safety, and worker compensation requirements of the Province.
- e. HRCE may consider and evaluate any RFX submission from other jurisdictions on the same basis that the purchasing authorities in those jurisdictions would treat a similar RFX submission from a supplier located in this Province. HRCE will be the sole judge of whether these conditions will be used and the extent to which they will be applied.
- f. Suppliers registered to do business in any Atlantic Province can bid on RFX issued by any other Atlantic Province without having to satisfy any local registration or residency requirements.
- g. Under Canadian law (and international agreements), your RFX submission must be arrived at separately and independently, without conspiracy, collusion or fraud; see: <http://www.competitionbureau.gc.ca/internet/index.cfm?itemid=1243&lg=e> for further information.

#### 41. Other General Conditions

- a. No RFX submissions shall be accepted from any person or corporation who, or which, has a claim or has instituted a legal proceeding against HRCE or against whom HRCE has a claim or has instituted a legal proceeding with respect to a previous contract, without prior approval of HRCE.
- b. The Supplier shall perform the obligations of this Contract in a good and workmanlike manner in compliance with all applicable legislation in effect in Nova Scotia, and in accordance with industry standards and practice.
- c. The Supplier shall be solely responsible for all means, methods, techniques and procedures necessary for performing the work required under this Contract.
- d. All Suppliers must comply with the Nova Scotia Corporations Registration Act (CRA) or the Partnerships and Business Names Registration Act (PBNRA) as one of the conditions of doing business with the Province of Nova Scotia. In this regard, Suppliers are advised that verification of registration and good standing may be carried out prior to the final award of a contract to a successful Supplier. Suppliers residing outside Nova Scotia (which are not otherwise carrying on business in Nova Scotia) are expected to be registered in an equivalent manner in their respective jurisdictions.
- e. Unless otherwise specified, all materials installed by the Supplier as part of this Contract shall be new and shall comply with the specifications and any applicable building codes. The Supplier is,

- at all times, responsible for correcting any defective work or materials at the Supplier's cost, and payment by HRCE to the Supplier does not relieve the Supplier of that responsibility.
- f. Where applicable, the end user must be provided with complete operation manuals, warranty registration forms, user licenses/ authentications and/or other associated documentation normally provided by the manufacturer, reseller, installer and/or consultant.
  - g. The Supplier shall, at all times, keep HRCE premises free from accumulations of waste and rubbish. Disposal of all waste and rubbish shall be at approved waste disposal sites.
  - h. If the Supplier files for bankruptcy, becomes insolvent or fails to perform the Supplier's obligations under this Contract in a timely and workmanlike manner, HRCE may, by written notice, immediately terminate the employment of the Supplier and the Supplier shall be entitled only to the value of work performed and materials supplied up to the date of the termination.
  - i. The Supplier shall not permit smoking by any of its employees or sub-contractors on HRCE property and will act in accordance to the Halifax Regional School HRCE policy BP101.3 Tobacco-Free Schools and Workplaces.
  - j. The Supplier warrants its work and materials for a minimum of twelve (12) months after the date of substantial completion.
  - k. The Supplier, if performing work on HRCE property may be required to provide a safety program certified with the Nova Scotia Construction Safety Association or with an approved alternate safety association and/or program.
  - l. HRCE reserves the right to split an award amongst Suppliers as deemed in the best interests of HRCE.

**END OF SECTION 00 73 10**



**Part 1 General**

**1.1 SUMMARY**

- .1 The work to be performed consists of providing all labor, equipment, materials, etc. to furnish and commission new factory assembled, low-pressure full condensing hot water boilers as described in the specifications herein.

**1.2 REFERENCES**

- .1 American Boiler Manufacturer's Association (ABMA).
- .2 American National Standards Institute (ANSI).
  - .1 ANSI Z21.13-2004/CSA 4.9-2004, Gas-Fired Low-Pressure Steam and Hot Water Boilers.
- .3 American National Standards Institute (ANSI)/ American Society of Mechanical Engineers (ASME).
  - .1 ANSI/ASME Boiler and Pressure Vessel Code, Section IV, 2004.
- .4 Canadian Gas Association (CGA)
  - .1 CAN1-3.1-77 (R2001), Industrial and Commercial Gas-Fired Package Boilers.
  - .2 CAN/CSA-B149.1-05, Natural Gas and Propane Installation Code.
- .5 Canadian Standards Association (CSA International)
  - .1 CSA B51-03, Boiler, Pressure Vessel, and Pressure Piping Code.
  - .2 CSA B139-04, Installation Code for Oil Burning Equipment.
  - .3 CSA B140.7-05, Oil Burning Equipment: Steam and Hot-Water Boilers.
- .6 Electrical and Electronic Manufacturer's Association of Canada (EEMAC).
- .7 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
  - .1 Material Safety Data Sheets (MSDS).

**1.3 SUBMITTALS**

- .1 Product Data:
  - .1 Submit manufacturer's printed product literature, specifications and datasheet in accordance with Section 01 33 00 - Submittal Procedures. Include product characteristics, performance criteria, and limitations.
    - .1 Submit two copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS) in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
  - .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Indicate the following:
  - .1 General arrangement showing terminal points, instrumentation test connections.
  - .2 Clearances for operation, maintenance, servicing, tube cleaning, tube replacement.
  - .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.
- .3 Engineering data to include:
  - .1 Boiler efficiency at 25%, 50%, 75% and 100% of design capacity.
  - .2 Radiant heat loss at 100% design capacity.
- .3 Quality assurance submittals: submit following in accordance with Section 01 33 00 - Submittal Procedures.
  - .1 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
  - .2 Instructions: submit manufacturer's installation instructions.
- .4 Closeout Submittals:
  - .1 Submit operation and maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

#### **1.4 DELIVERY, STORAGE, AND HANDLING**

- .1 Packing, shipping, handling and unloading:
  - .1 Deliver, store and handle in accordance with manufacturer's written instructions.
  - .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

#### **1.5 MAINTENANCE**

- .1 Extra materials:
  - .1 Special tools for burners, manholes, handholes and Operation and Maintenance.
  - .2 Spare parts for one (1) year of operation.
  - .3 Spare gaskets.
  - .4 Probes and sealants for electronic indication.
  - .5 Safety valve test gauge.

**Part 2 Products**

**2.1 CONDENSING GAS BOILERS**

.1 Contractor shall supply only two (2) full condensing boilers with input as scheduled on the drawings and performance as noted in these specifications.

.2 "Near condensing" copper fin designs, cast iron or "add-on" secondary condensing exchangers will not be considered.

.3 General Description

.1 Each unit shall be a Down-fired Firetube type complete with boiler fittings and automatic controls. The boiler, with all piping and wiring, shall be factory package. Each boiler shall be neatly finished, thoroughly tested and properly packaged for shipping. Boiler design and construction shall be in accordance with Section IV of the ASME Code for hot water heating boilers with a maximum working pressure of 75 psig. The boiler shall be CSA or cULus certified as an indirect or direct vent boiler and comply with ASME CSD-1 Code requirements.

.4 Performance: Boiler Size and Ratings

.1 The capacity of each unit shall be as indicated on the drawing schedule.

.2 Performance Criteria:

Gas Input: 1500 MBTU (439 kW) – Natural Gas

NET Output Rating (@ 176/140°F)

LWT/EWT 1305 MBTU (383 kW)

AHRI Certified Combustion Efficiency: 93.0%

AHRI Certified Thermal Efficiency: 95.3%

Design Pressure: 75 psig (517 kPa)

Operating Pressure/Relief Valve  
Setting: 30 psig (206 kPa)

Burner Turndown Ratio: 5:1 @ 30 PPM NO<sub>x</sub>, 4:1 @ 20 PPM NO<sub>x</sub>.

NO<sub>x</sub> Emission (maximum): 20 PPM (corrected to 3% O<sub>2</sub>)

CO Emissions (maximum): 10 PPM (corrected to 3% O<sub>2</sub>)

Electrical: 2-circuits 120V/50-60H /1P – 12A & 2A

Fan Motor: 1200 W

Noise level: 70 dBA Max<sup>A</sup>

Available Gas Supply Pressure: 7" W.C. (1.74 kPa)

Weight:

Dry: 2,225 lbs. (1,009 kgs)

Flooded: 3,165 lbs. (1,435 kgs)

Code Requirements: ASME / NATIONAL BOARD

CSD-1

CSA/UL



- .3 Noise Sound Levels: Based on ABMA test code for packaged boilers measured @ 4-1/2 feet vertically above the bottom of the base and 3'0" horizontally in front of the end of the burner or front surface of control cabinet. Sound levels dBA on the scale in reference to 0.0002 microbars.

.5 Boiler Design

- .1 Boiler shall be a compact, single-pass, vertical down-fired Firetube type, with Duplex stainless steel or 316Ti stainless steel tubes, tube sheets, and combustion chamber. The boiler pressure vessel shall be completely insulated with a minimum of 2" of insulation and shall be encased in an 18 gauge metal cabinet with powder coated finish. To prevent installation damage, the casing shall be packaged separately and shall ship loose for field installation by the manufacturer's service representative.
- .2 The tubes may be Duplex Stainless Steel and may be fitted with Aluminum Alloy internal heat transfer fins creating no less than 10 square feet of fireside heating surface per boiler horsepower.
- .3 The Vessel shall be mounted on a structural steel stand with exhaust gasses collected in a polymer drain collection box complete with drain fitting for draining condensation from the products of combustion. A condensate neutralizing box complete with limestone chips shall be shipped loose for field installation by contractor. Note: A condensate trap assembly shall be furnished if a condensate collection tray is not provided due to operating conditions.
- .4 The top tube sheet shall be fully accessible without burner disassembly or removal from the boiler. The burner assembly shall be complete with lifting hinges and pneumatic lifters. The boiler shall have a built in hinged platform allowing the operator to access the tube sheet, burner, ignition assembly and flame rod without the use of a ladder.
- .5 The vessel shall be fully insulated with a minimum of 2" of insulation, guaranteeing external convection and radiation heat losses to the boiler room from the boiler shall be less than 0.5% of the rated input.
- .6 The condensing capability shall allow the boiler to be operated without the use of a 3-way valve for the boiler supply water temperature reset. No minimum boiler return water temperature or secondary pump or minimum flow rate shall be required to protect the boiler against thermal shock or for minimum temperature water.
- .7 Each boiler shall be constructed in accordance with the A.S.M.E. Section IV Code and bear the "H" stamp and shall be manufactured within an ISO 9001 Certified facility to ensure high quality standards.
- .8 The boiler shall be designed for top rear water outlet and bottom rear water inlet; the water inlet (return) shall be equipped with internal baffling. Inlet connection size shall be NPS 4 flanged. Outlet connection size shall be NPS 4 flanged. The maximum pressure drop through the boiler shall not exceed 0.45 psi with a 20-degree differential and less than 0.05 psi with a 60-degree differential.
- .9 A threaded air vent connection shall be furnished at the top rear of the boiler for field piping to an expansion tank or for the addition of an auto-vent valve when a bladder type expansion tank is utilized.

- .10 To drain the boiler, a bottom-threaded connection shall be provided at the front of the boiler and field piped by the installing contractor with a manual full size shutoff valve to drain.
  - .11 Boiler design shall permit operation with a water condition of 8.0 - 9.5 pH range.
- .6 Burner Design
- .1 General: Forced draft burner mounted in and integral with the boiler hinged top door so when the door is opened the burner head, furnace, tube sheet, and tubes are exposed. The burner door shall utilize easy removable threaded handles, and the burner shall swing upward on hydraulic piston arms, one on each side to provide open support of the burner assembly.
  - .2 A drop down hinged service platform shall be furnished to provide service personnel an easy means of accessing the burner and controls for service and maintenance. When out of use, this platform shall fold up beneath the front service boiler panel.
  - .3 The burner shall be of the Unitized Venturi, Gas Valve, Blower, and burner head design. This pre-mix design shall utilize a variable speed fan connected to a Venturi to simultaneously modulate fuel and air for a minimum a 5:1 turndown ratio. The Venturi design shall also act as a method for compensating for changes in barometric pressure, temperature and humidity so the excess air levels are not adversely affected by changes in atmospheric conditions. External linkages, damper motor drives and single speed fans shall not be acceptable.
  - .4 Burner head shall be constructed of a Fecralloy-metal fiber for solid body radiation of the burner flame. Combustion shall take place on the surface of the burner mantle, which shall be constructed of a woven fecralloy material creating a 360 degree low temperature radiant flame.
  - .5 Emissions: The equipment shall be guaranteed to limit NOx emissions to 20 PPM or less, as certified by an independent testing lab. NOx emission levels shall not be exceeded at full operating conditions and at designed turndown of the burner. Proof of such emissions certification shall be made available to the engineer and purchaser and demonstrated at the time of start-up. External flue gas recirculation shall not be accepted for emission control.
  - .6 Gas Train – As a minimum, the gas train shall meet the requirements of CSA/UL and ASME CSD-1 and shall include:
    - .1 Low Gas Pressure Interlock, manual reset - ventless.
    - .2 High Gas Pressure Interlock, manual reset - ventless.
    - .3 Upstream and downstream manual test cocks.
    - .4 Ball Type manual shutoff valve upstream of the main gas valve.
    - .5 Uni-body double safety gas valve assembly.
    - .6 Gas Pressure Regulator
    - .7 Union connection to permit burner servicing.
  - .7 Combustion Air Proving Switch shall be furnished to ensure sufficient combustion airflow is present for burner ignition firing.

- .8 To ensure that proper draft is not blocked in the stack, the burner shall include a High Air Pressure Switch sensing the outlet pressure connection relative to stack back draft.
- .7 Boiler Trim
    - .1 Safety valve(s) shall be ASME Section IV approved side outlet type mounted on the boiler air vent outlet. Size shall be in accordance with code requirements and set to open at 125 psig.
    - .2 Temperature and pressure gauge shall be mounted on the water outlet.
    - .3 Solid State Low water cut-off probe with manual reset and test switch.
    - .4 Manual Reset High Limit Temperature sensor; range not to exceed 210<sup>0</sup> F and shall be an integral device of the Boiler Burner Control and UL recognized as a limit control.
    - .5 Outlet water supply sensing probe for operating water limit setpoint.
    - .6 Return water-sensing probe for operating water limit setpoint.
  - .8 Boiler Controls
    - .1 The Boiler shall include a Computerized Boiler Burner control which shall be an integrated, solid state digital micro-processing modulating device, complete with sequence indication, fault reset, mode selection, and parameter set-point. It shall be mounted at the front of the boiler panel for easy access and viewing.
    - .2 Controller shall provide for both flame safeguard and boiler control through separate power supplied CPU's (to meet NFPA) and shall perform the following functions:
      - .1 Burner sequencing with safe start check, pre-purge, Electronic direct spark and post purge. Flame rod to prove combustion.
      - .2 Flame Supervision. The control shall provide pre-purge and post-purge and shall maintain a running history of operating hours, number of cycles, and the most recent six faults. The control shall be connected to a keyboard display module that will retrieve this information.
      - .3 Safety Shutdown with display of error.
      - .4 Modulating control of the variable speed fan for fuel/air input relative to load requirements.
      - .5 Gas pressure supervision, high and low.
      - .6 Combustion Air Proving Supervision.
      - .7 High Air Pressure backdraft too high Supervision.
      - .8 The supply temperature and set-point temperature shall be displayed at all times on the touch screen display.
      - .9 Controller shall be equipped with a touch screen display for set up, trouble shooting, and operational display, and shall include ModBus communication capability of this information.
      - .10 Include the programming of system circulating pump and provide the programming of 2 heating loops.

- .3 All parameter input control set-points shall be factory downloaded with jobsite conditions programmed at the time of initial jobsite operation.
  - .4 All controls to be panel mounted and so located on the boiler as to provide ease of servicing the boiler without disturbing the controls and also located to prevent possible damage by water according to CSA requirements.
  - .5 Electrical power supply shall be 120 volts, 60 cycle single phase for the fan and 120 volts for control circuit requirements.
  - .6 When multiple boilers are to be installed together, a system integration control shall be provided to stage up to 8 boilers. The control shall include automatic selection of needed boilers based on energy demand, an adjustable outdoor reset schedule, domestic hot water priority, and a system digital display. The control shall force each boiler to a lower fire, before allowing any boiler to operate at high fire. This allows for inverse efficiency (lower fire rate, higher efficiency). The control shall monitor supply water temperature, return water temperature and shall communicate between boilers via RS-485 wiring.
- .9 Boiler Flue Venting
- .1 The Boiler shall be UL certified as an indirect or direct vent boiler. Venting shall be accomplished with a stainless steel, double-wall, vent piping installed in accordance with applicable national and local codes. Refer to vent manufacturer's specifications for applicability.
  - .2 For direct venting, the boiler shall have the combustion air intake supply ducted with PVC pipe from the outside. Vibration isolation components are not required.
- .10 Operating & Maintenance Manuals
- .1 Provide two (2) Operating and Maintenance manuals including cut-away views of boiler and burner, schematics including fuel trains, general instructions for maintenance and inspections, complete spare parts lists and trouble-shooting procedures.
  - .2 A wiring diagram corresponding to the boiler shall be affixed to the boiler near the electrical panel.
- .11 Warranty Data
- .1 The pressure vessel shall be guaranteed against thermal shock for 20 years when utilized in a closed loop hydronic heating system with a temperature differential of 120 °F or less. The boiler pressure vessel shall be guaranteed accordingly without a minimum flow rate or return water temperature requirement. The boiler shall not require the use of flow switches or other devices to ensure minimum flow.
  - .2 The pressure vessel, tubes and tube sheets (heat exchanger) shall be guaranteed against flue gas corrosion and materials/workmanship for a period of 10 years. The condensate collection box shall be guaranteed for 20 years. The burner cylinder shall be warranted for a period of 5 years.
  - .3 All parts not covered by the above warranties shall carry a 18 month warranty from acceptance, or 24 months from shipment, whichever occurs first. This shall include all electrical components and burner components.

- .12 Acceptable Material
  - .1 Two (2) total Cleaver Brooks Model Clearfire-C CFC 1500, Direct Vent, c/w Common Vent Capability (including boiler flue vent dampers and actuators if required for common venting), Boiler Drain Valves, Combined Supply Water Header Temperature Sensor, Condensate Neutralization Tanks (3), Modbus Communications, OAT sensor, Multi-boiler Controller, BACnet Gateway. Note: Multi-Boiler Controller must be capable of receiving hard-wired  $\varnothing$ 10V or 4-20 ma BMS signal for “Plant Heating Supply Water Temperature Setpoint” and binary points as follows:  
“Plant enable/disable” and “General Alarm to output to BMS”. These control points must be able to function when BACnet Gateway is connected.
  - .2 Approved Equivalents:
    - .1 Two (2) Viessmann Vitocrossal 200 – CM3 400 c/w all features and capabilities listed above.
    - .2 Two (2) Lochinvar Crest FBN 1501 c/w all features and capabilities listed above.

## 2.2 MANUFACTURER’S FIELD SERVICES

- .1 General: The boiler supplier’s factory authorized service organization shall be responsible for performance of inspections, start up and testing of the package boiler, and accessory equipment and materials furnished under this Section. A detailed written record of the start up performance, including burner setting data over the entire load range shall be furnished to the engineer before final acceptance. All labour, equipment and test apparatus shall be furnished by the authorized service organization. All equipment defects discovered by the tests shall be rectified either by the service organization or boiler manufacturer.
- .2 Equipment inspection and pre-start walk through services are as identified in specification sections.
- .3 Start-up shall be conducted by experienced and factory authorized technician in the regular employment of the authorized service organization and shall include:
  - .1 Demonstrate that boiler, burner, controls and accessories comply with requirements of this Section as proposed by the boiler and accessories supplier. Pre-test all items prior to the scheduling the final testing that will be witnessed by the test engineer.
  - .2 Readings at different firing rates 20, 50, 75 and 100% of load for the modulating burner shall be taken with a written report of the tests submitted to the engineer. The reports shall include readings for each firing rate tested and include stack temperatures, O<sub>2</sub>, CO, NO<sub>x</sub> and overall boiler efficiency.
  - .3 Auxiliary Equipment and Accessories: Observe and check all valves, draft fans, electric motors and other accessories and appurtenant equipment during the operational and capacity tests for leakage, malfunctioning, defects and non-compliance with referenced standards or overloading as applicable.

- .4 Commissioning Requirements:
  - .1 Fireside inspection.
  - .2 Set up fuel train and combustion air system.
  - .3 Set up operating set points.
  - .4 Check all safeties, including Flame safeguard, LWCO, Airflow, Fuel pressures and High limits.
  - .5 Set up and verify efficiencies at 25%, 50%, 75% and 100%.
  - .6 Set up and verify burner turndown.
  
- .4 Training to include all safety procedures, maintenance procedures, control operations and diagnostic procedures.

END OF SECTION