NRC·CNRC

Addendum / Addenda

No./No
3

Project Description / Description de projet		
CHCP - Pyrolysis Bio-Fuel Boiler		
Solicitation No./N° de solicitation	Project No./N° de projet	W.O. No./N° d'ordre de travail
17-22021	A1-011349-01	
Departmental Representative / représentant ministériel		Date
Lisa Paterick		June 26, 2017

Notice:	**Nota**:
This addendum shall form part of the tender documents and all conditions shall apply and be read in conjunction with the original plans and specifications.	Cet addenda fait partie intégrale des dossiers d'appel; toutes les conditions énoncées doivent être lues et appliquées en conjonction avec les plans et les devis originaux.

1 Question and Answers

2 Plant Mechanical/electrical and architectural availaible drawings. No information for tunnels will be available. Posted seperately from this document

3 Closing date extended to July 10, 2017 at 14:00

Question and Answer 17-22021 CHCP – Pyrolysis BioFuel Boiler

1. In the spec section 23 52 00, it references ASME Section IV;

3.2 INSTALLATION

.1 Install in accordance with ANSI/ASME Boiler and Pressure Vessels Code Section IV, regulations of Province of Ontario having jurisdiction, except where specified otherwise, and manufacturers recommendations.

The temperature limits for a ASME Section IV boiler is 250°F (121°C)

However in the design criteria, the existing conditions to be met require a boiler output of 293°F (145°F)

Plant performance shall be based on the following operating conditions:

The new Boiler shall be designed and selected to provide the following services to the CHCP:

- Current Hot Water Supply and Return Temperatures in the CHCP are 145 deg C/110 deg C respectively. The new Boiler shall be designed and selected to meet these temperatures.

We believe that the boiler section 23 52 00 in the spec should be revised to an ASME Section I boiler instead of Section IV

Answer - The biofuel boiler should be compliant with the high pressure requirements per section I of the ASME code.

2. Is there a MOE Certificate of Approval (ECA) for Air and Noise Emissions? Is there an Environmental Consultant of Record for the C or A who has been supporting the site Emissions Summary and Dispersion Model Reports for the Confederation Heights CHCP? If so, can the contact be shared with all proponents?

ANSWER - There are no MOECC certificate of approvals in place at any of the PSPC Plants. Within Environmental Services ECA/COAs for noise are not managed.

A consultant will be selected and procured by NRC to determine

- Existing plant baseline emissions
- Estimated emissions from the new boiler installation
- odor assessment, Acoustic assessment and dispersion modelling will be completed.

The above work is in progress and consultant contact information, study results and reports will be made available to the successful contractor.

3. In section 5 of Appendix A states that “It is the responsibility of the Contractor to provide appropriate equipment to collect/provide the following:”. Could you please confirm that Contractor is to provide the equipment only and NRC is to perform the stated calculations? If the Calculations are to be provided by the Contractor could you please specify the **minimum** frequency at which you intend the calculations to be performed and are you expecting manual calculations or online live calculations

ANSWER - Calculations are not necessary, only to provide the data necessary to perform them. Likely there will be online algorithms for efficiency which use electronic data from the sensors and measurement equipment provided by the contractor.

The following measurements are not necessary to complete at a high frequency.

This is includes:

Unburnt hydrocarbons in flue gas shall be provided at the same frequency as the NOx testing, which is twice per year.

Carbon content in shall be sampled during maintenance intervals, if any ash is physically removed from the system.

For the specified pyrolysis oil measures,

- Water
- Heating value
- Kinematic viscosity @ 40°C
- Solids
- Ash

It is specified these values from are provided by the contractor up to six times per year.

The following quantities shall be measured continuously with data being reported at one-minute intervals or less.

INPUT ENERGY

- Electric Meter for boiler and (Virtual) sub-meter for auxiliary equipment
- Water meter (volume and temperature input/output)
- Fuel feed (pyrolysis fuel oil) – flow meter and temperature
- Natural gas consumption (during start-up/pre-heat)

Flue gas :

Oxygen

- Carbon Dioxide

- Carbon Monoxide
- Humidity
- Temperature

4. The specification has the system at 125 psi to 135 psi. Can you confirm that the district heating pressure drop is only 10 psi?
   Looking for the following Values:
   Return Hot Water (110C) Header Pressure = Minimum and Maximum
   Supply Hot Water (145C) Header Pressure = Minimum and Maximum

ANSWER - A sample of reading at the Plant: out is 121PSI and returning at 110.

The supply will range from 120 to 125 with a difference of 8 to 10 PSI