



Addendum 2

Questions & Answers

1. What is the wall-thickness of Tubes in Furnace Waterwalls?

Answer: The minimum wall thickness shall be 5mm

2. Are the side wall headers being replaced?

Answer: No, the sidewall headers are not being replaced

3. Are rear sidewall panels being replaced?

Answer: No, rear sidewall panels are not being replaced

4. What is the wall-thickness of Tubes in Superheater 1&2?

Answer: The minimum wall-thickness shall be 5.6mm

5. What are the lengths of the tubes in Superheater I & II?

Answer: Please see the drawings and documents provided for detailed length of tubes.

6. What is the wall-thickness of Evaporator 1&2?

Answer: The minimal wall thickness shall be 4.5mm

7. What are the pipe lengths for Evaporator I & II?

Answer: Please see the drawings and documents provided for detailed lengths.

8. Is it correct that the furnace ceiling (incl. Inconel coating) is included in the scope of supply?

Answer: The furnace ceiling is not included in the scope of supply

9. Are the upper bends (connection between tube-rows) included in the scope of supply for Superheater I & II?

No, the upper bends for Superheater I & II are not included.

10. Is the replacement of the refractory concrete on the lower front wall included in the scope of supply?

Answer: The refractory concrete on the lower front wall is included in the scope of supply for unit #2 supply and installation works.



11. Does the site have other equipment options or suggestions for panel size/handling?

Answer: **Please see section 2.10.4 in the Tender Documents.** The membrane walls are to be delivered in lengths of 6 meters maximum of as to account for ease of installation and transport within a 20ft container to site

There is a forklift on site that can be made available for panel handling to the second floor. Any additional equipment shall need to be provided by the contractor. If the contractor wished to utilize a crane they can.

Clarifications

1. Exposed tube material for the waterwalls shall be coated with Inconel material. Most tubes that are covered by refractory do not require Inconel overlay. The Inconel tube with overlay shall start 12 inches below refractory line.
2. The term **“Engineered drawings and specifications”** in **section 2.10.3** refers to any drawings that are provided by the fabricator of the panels. There are no additional engineered drawings to be provided by Tynes Bay Waste to Energy Facility.
3. Tynes Bay shall supply and install scaffolding for inside the furnace **ONLY!!**
4. J & G Refractories must be utilized for tile refractory replacement. See website information below & contact info:

www.jg-refractories.com

Robert-Bosch-Straße 1

68723 Schwetzingen

Germany

Phone: +49 (0) 6202 - 944 - 0

Fax: +49 (0) 6202 - 944 - 194

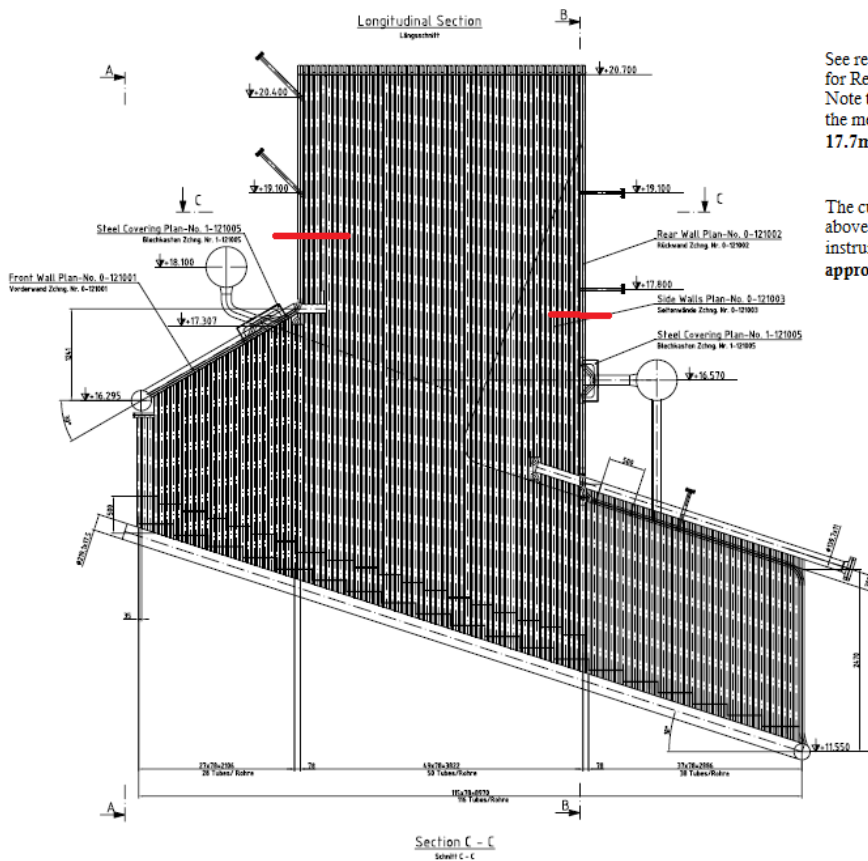
email: info@jg-refractories.com



5. Holding clips and pins for tile refractory should be made of Inconel 625 material and **NOT** simply Inconel overlay.
6. Superheater and Evaporator are straight pipes only.

7. Waterwall Panels

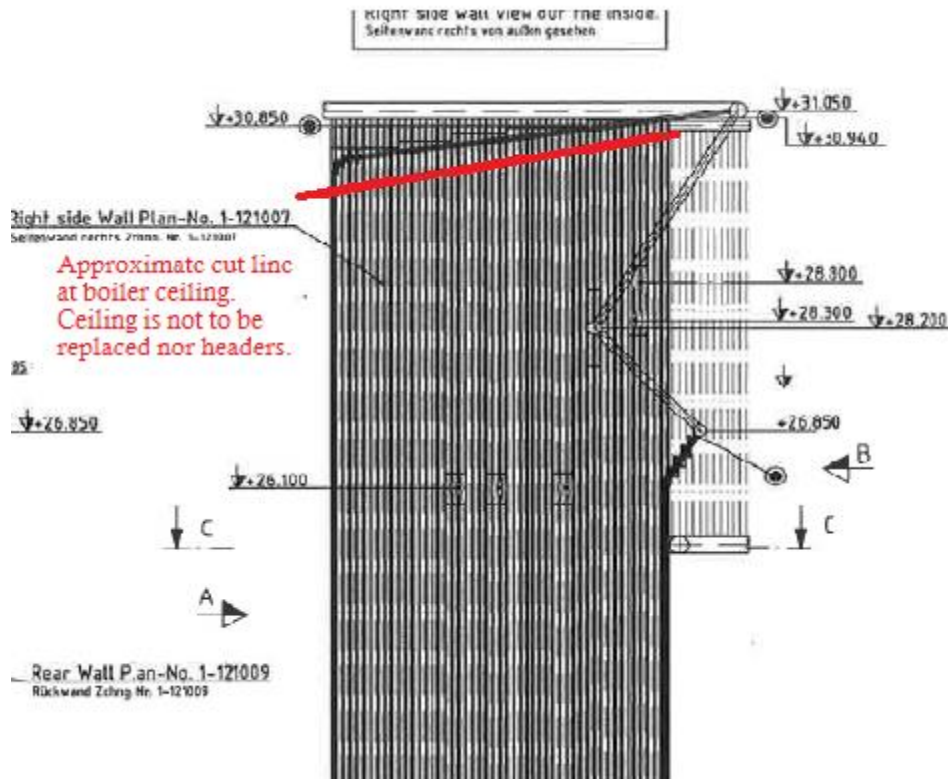
- a. Tube size and spacing can be found from drawings and documents provided
- b. Approximate Bottom Cut line for waterwalls are depicted below.
- c.



See red marker on drawing for approximate cut for Rearwall bottom.
Note that the cut should be made just below the measuring instrument between 17.5 and 17.7m. (values are approximation)

The cut on the bottom front wall shall be made above the curve bend just below the measuring instrument between 18.1 and 18.6m (values are approximations)

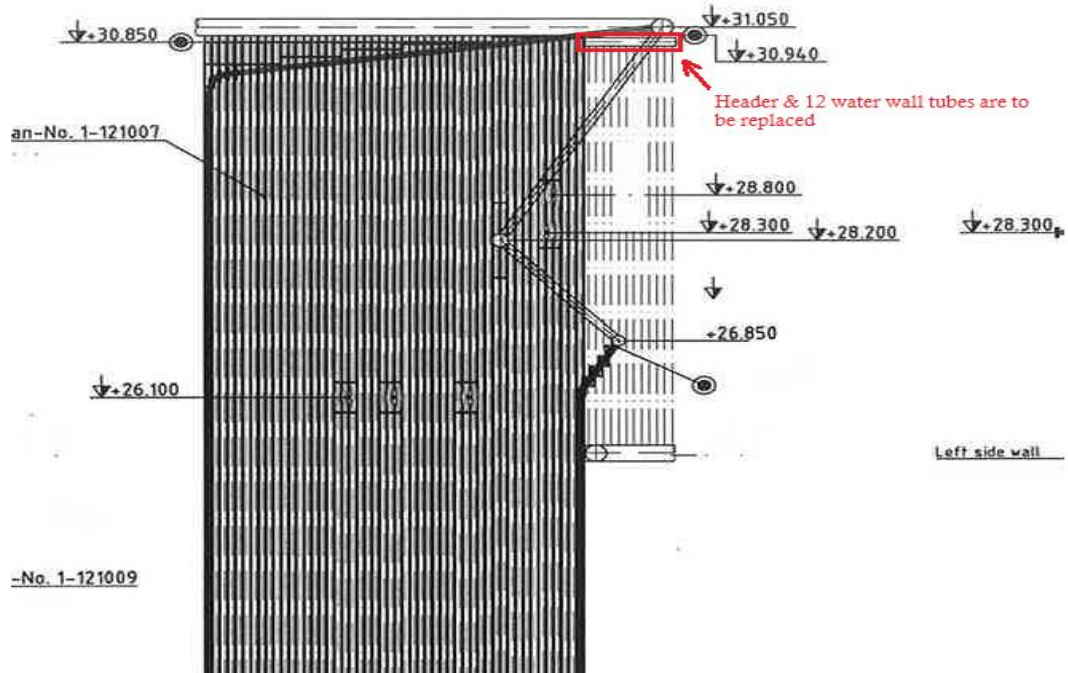
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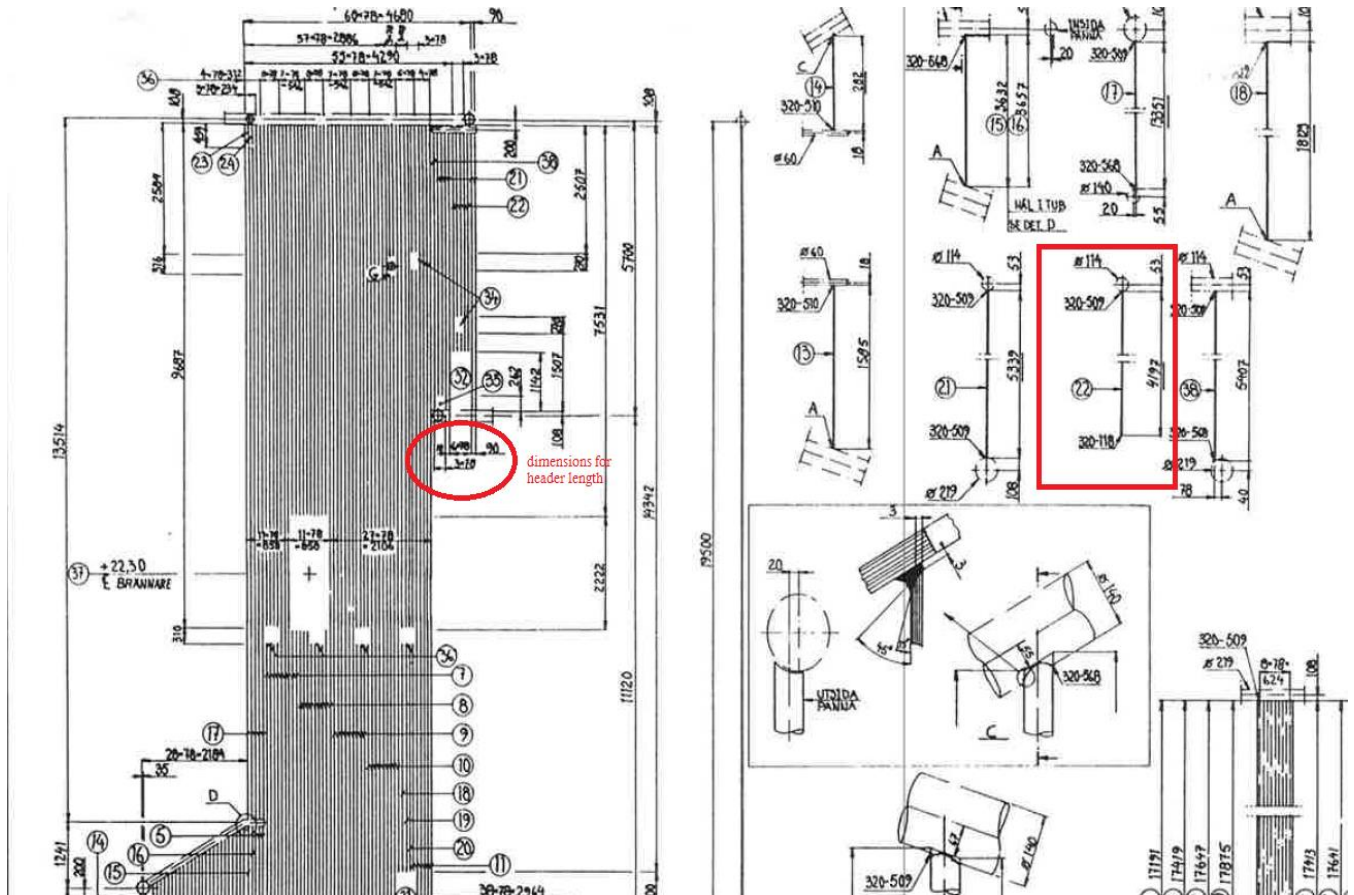
- d. Inconel overlay shall start approximately 12 inches below the top tile refractory line. The overlay shall encompass all of the waterwall to the top of the header of the furnace.



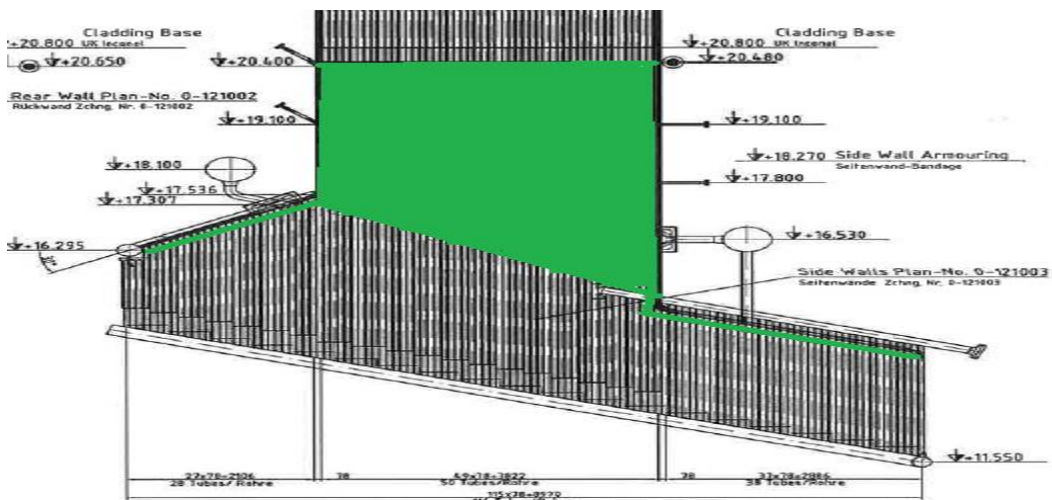
e. 12 Additional waterwall tubes



- i. The twelve tubes can be loose tubes or as fabricated panel, it is the choice of the vendor.
- ii. Header dimensions are provided below (see drawings 324-4081 & 320-509 for clearer view and welding details):



8. Refractory Mastic and Expansion Joint Replacement Unit # 2





GOVERNMENT OF BERMUDA

Ministry of Public Works

Department of Works and Engineering

Additions

1. Tenderer shall include in their bid 20 pieces of additional cladding material for replacement during unit # 2 waterwall installation.
2. Tenderer shall supply and install all scaffolding needed for outside of the boiler for cladding/insulation removal and waterwall installation.