

A. SCOPE:

1. To repair Ajax Boiler #1, Model No. WFG11500, Serial No. 52461 at the Anaheim Convention Center.
2. Replace all water tubes and replace the burner core on the Alzeta Low Nox Burner, Model No. CSB15-2SO-30-10 (which was updated by Alzeta to a Model CSB 15-1SO-40), damaged as a result of leaking water tubes.
3. Install Inlet wye strainer; install vent cap.

B. SPECIFICATIONS:

1. Open fireside and waterside of boiler completely removing old gaskets.
2. Cut out and remove –225—defective tubes from boiler. Remove tubes from job site and dispose of properly.
3. Water wash loose scale (if any) from pressure vessel.
4. Open and clean low water cut-off assemblies and piping inspection plug. Flush and reseal controls and equalizing piping. Check for damage to controls or floats and close up using new gaskets.
5. Clean and prepare both tube sheets to accept new boiler tubes. Visually inspect both sheets; provide PT (Die Penetrate) testing for any suspected failures or cracks.
6. Provide and install new, American Made, ASTM-SA178 Grade-A Code boiler tubes.
7. Roll all new tubes in both front and rear tube sheets.
8. Provide and install new waterside gaskets for pressure vessel and level controls.
9. Perform a hydrostatic test to normal operating pressure, insuring a secure pressure vessel. Note: Customer inspectors will be present to witness and approve hydro test.
10. Remove Alzeta burner and change the defective burner element.
Note: This burner, Model No. CSB 15-2SO-30/10, has been updated to a CSB 15-1SO-40. The difference is the new burner design is a single segment compared to the old one that has two (2) elements.
11. Check burner for any other water damage and mount back on boiler.
12. Inspect for any minor water damage to the fire box refractory and advise.
13. Remove and/or inspect gas pilot assembly. Reinstall in accordance with recommended specifications and tolerances.
14. Check flame Safeguard Control for pilot and main flame ignition, detection and proper lockout.
15. Check operation of blower motor and control circuitry. Run amp check to verify motor is in tolerance and document. Lubricate motor bearings when applicable.
16. Check operation and adjust all linkages in accordance with factory specifications.
17. Check operation and adjust the boiler's operating limit pressure controls and running interlocks and adjust for maximum pressure control and minimal burner cycling.
18. Check burner, pilot and main flame ignition. Also, verify and calibrate for smooth and reliable light.
19. Check and calibrate the boiler burner for optimum air/fuel mixture. Burner firing to be fine tuned and adjusted to its maximum efficiency level throughout entire modulation range. Flue gas analysis and monitoring of temperature, O₂, CO₂, CO, NO_x and excess air, to be monitored.
20. Inspect for worn control, metering, linkage or affiliated equipment and advise.
21. Perform combustion and efficiency testing and record all firing rates of boiler/burner capacity. Combustion efficiency will be calculated and recorded at each position.

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22. Submit an Engineering Report for our review and for our AQMD records upon completion of full testing. The Engineering Report will summarize all work completed.
 23. Leave boiler room in the same clean condition as existed prior to the start of work.
 24. Install 6" inlet wye strainer.
 25. Install 48" roof vent cap.
 26. Replace sight glass.
 27. Warrant all parts and labor for a minimum of one year.