



UNIVERSITY OF OKLAHOMA  
PURCHASING DEPARTMENT  
2750 VENTURE DRIVE  
NORMAN, OK 73069  
TELEPHONE: (405) 325-2811

**Invitation to Bid**

**BID NO B-10067-10**

**ISSUED 10/27/09**

**CLOSING DATE 11/16/09**

**CLOSING TIME 2:00 PM CST**

**Invitation to Bid**, to the Board of Regents of the University of Oklahoma (OU) for **Health Sciences Center – Site Support**

Note: ***If your company will not be responding, please notify Purchasing and no further addenda will be sent. See original Invitation to Bid for Purchasing contact name, telephone and fax numbers for this Solicitation.***

**ADDENDUM # 2 DATED 11/06/09**

**Question 1:** Section 15625-1.01 B. notes the major pieces of equipment to be supplied by this contract. Section 2.01 A.1. notes the boiler outlet configuration which includes outlet ductwork from the boiler to the horizontal flow economizer. I don't see anywhere in the specifications whether we are supposed to provide anything past that point and or a stack. The existing (5) boilers all have freestanding stacks. Please advise if you want us to provide a freestanding or economizer supported stack and what the overall stack height needs to be inclusive of the height above the roof. If this is to be in our scope of supply, we also need to know where the location of the existing stack penetration is on the roof is so we can size and price our ductwork accordingly.

**Answer 1:** The new boiler will utilize a free standing boiler stack and boiler flue pipe from the horizontal economizer flue gas outlet. These items will be furnished and installed by the boiler installation contractor.

**Question 2:** Section 15625-1.08 A. notes acceptable manufacturers. Please advise if Babcock & Wilcox is an acceptable boiler manufacturer.

**Answer 2:** Babcock & Wilcox is an acceptable boiler manufacturer.

**Question 3:** Section 15625-2.01 G. notes all tubes shall be ERW of 2" OD and that swaged tubes are not acceptable. B&W's standard furnace design uses 2-1/2" OD tubes on 3-1/2" centers with a 1" membrane between. The 2-1/2" tubes used in the furnace only are swaged to 2" at the drums to maximize drum ligament layout efficiency. These larger tubes provide more water cooling in the 2,500\* F combustion zone while minimizing membrane width and thermal stress as well as maximizing

For questions regarding this Addendum contact:

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overall furnace tube and membrane life. Please see the attachment above which further elaborates B&W's standard offering and advise if this is acceptable.

**Answer 3:** Furnace tubes at 2 ½" O.D. swaged to 2" O.D. at the drums is an acceptable substitute for 2" O.D. nonswaged furnace tubes as specified.

**Question 3:** Section 15625-2.02 H.2. notes that the fuel/air ratio shall be cross-limited. Please advise whether you want the dampers on the FD Fan to include actuators; and if so, whether you want pneumatic or electric. The base case will have (1) Inlet vane damper and the option for FGR will have an additional (2); fresh air and FGR. Some burner vendors may recommend fixing the FGR damper and modulating the fresh air and inlet vane only.

**Answer 3:** The forced draft fan will be controlled from a variable frequency drive provided by others (refer to 15625-2.02-D-1). A motor operated forced draft fan inlet damper is not required. 15625-2.03-B-3 and 4 requires a combustion air damper with electric actuator and a manual FRG system shutoff valve if alternate No. 1 is accepted by the Owner.

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