

**STATEMENT OF WORK**  
**FOR**  
**PROJECT NUMBER: VDYD232001**  
**EMERGENCY, REPLACE BOILERS – B5028A**

**DATE:** 1 March 2023

**PROJECT LOCATION:** 126 ARW, Scott AFB, IL

**FACILITY NUMBER:** 5028A

**PROJECT NUMBER:** VDYD232001

**PROJECT TITLE:** EMERGENCY, REPLACE BOILERS – B5028A

1. **BACKGROUND:** The 126<sup>th</sup> Air Refueling Wing has two boilers that were installed approximately 8 years ago on the “A” side of building 5028. A recent project, funded by AMC, is expanding the usable space of building 5028A. The mechanical engineering aspect of the current project was overlooked or ignored, and it has now been determined that the two boilers for that side of the building are undersized. Typically, the 126<sup>th</sup> will have two boilers in each building with each boiler having the capacity to independently heat the building. The second boiler is a backup boiler in the event a boiler goes down or needs maintenance or repair. For maintenance and repair purposes building 5028 is unique in that there are two “sides” that operate independently from the other. The “A” side and the “B” side each have two boilers. The project entails providing all necessary material, labor, and equipment to complete necessary repairs, inspections, and tests to ensure compliance with all local and state regulations. The system should be a complete and functioning system tested and ready for operation when work is completed. The system should have one boiler capable of heating the specified area and have a second boiler capable of the same to provide redundancy. The equipment shall be installed in accordance with approved building, plumbing, electrical, and health codes and function as specified.

2. **MATERIALS AND SERVICE:** Systems shall be installed using materials of the grade and quality required to meet or exceed local or state and EPA standards. All systems must be energy efficient per current code. All work is to be done by trained, experienced individuals. Perform the following maintenance and repair items:

A. Replace existing two (2) Lochinvar KBN151 boilers with two (2) NEW, larger KHB199N floor mount boilers or equivalent.

B. Ensure each boiler has properly sized circulating pumps installed in each boiler loop. If it is determined larger circulating pumps are needed, then install correctly sized pumps for the system.

C. Provide water test and factory analysis to ensure system is properly functioning and within compliance. If results are not in compliance with standards required by the equipment, the contractor must provide proper filtering to clean the system and restore the systems proper levels.

D. Contractor will furnish and install closed loop chemical cleaner JT-3450 Closed Loop Cleaner or equivalent. Install closed loop corrosion inhibitor JT-325 Closed Loop Inhibitor or equivalent. Contractor will install new propylene glycol to achieve a 25% system concentration. The new Propylene Glycol must be 100% glycol Interstate Industrial Propylene Glycol or equivalent. These products are presently approved by Scott Air Force Base and the 126th ARW CES Hazmart. All chemicals must be submitted with the MSDS and exact quantities needed to service the system.

E. Provide labor and material for any additional propylene glycol or chemical as needed.

F. Provide certification of technicians before beginning work.

G. Calibrate all controls.

H. Contractor must ensure proper connection and operation of the newly installed equipment with the existing Direct Digital Control (DDC) system. The system is operated by the 126<sup>th</sup> Civil Engineer Squadron and maintained by the C&C Group.

I. Contractor will need to ensure that the entire system for Bldg 5028A is tested and balanced to operate fully.

**3. SPECIFICATIONS:** N/A

**4. SCHEDULE OF DRAWINGS:** N/A

**5. SUBMITTALS:** Contractor will provide prior to work starting certifications for the individuals completing the work. Upon completion of work contractor will provide the manuals, specifications, requirements, recommended preventative maintenance actions, and explanation of operation of newly installed equipment to CES maintenance personnel maintaining the equipment.

**6. WARRANTY OF CONSTRUCTION:** Contractor shall provide all applicable warranty information for the equipment and labor provided.

**7. PERFORMANCE PERIOD:** Estimated Period of Performance for this project is 45 days.

**8. QUALITY ASSURANCE:** Contractor shall verify with DDC company and 126<sup>th</sup> CES Operations personnel that all sequence of operations and control functions are working properly and to the satisfaction of 126<sup>th</sup> CES Operations personnel.