

## Scope of Services

Equipment	Qty	Manufacturer	Model Number	Serial Number	Area Served / Asset Tag
Centrifugal Chiller	1	Trane	CVHE045	L93O04956	CH-1
Centrifugal Chiller	1	Trane	CVHE050	L93O04957	CH-2

### CenTraVac Compressor Renewal Service

Refrigerant removal and recharge with existing per applicable law and EPA Regulations  
 Provide, set-up and take down required rigging equipment  
 Dismantling of the centrifugal compressors  
 Refrigerant Analysis using Chemical Laboratory  
 Oil Analysis using Chemical Laboratory  
 Inspection and verification of the inlet guide vane assembly, labyrinth seals, and the impellers compared to Trane specifications.  
 Furnish and install new Trane OEM bearings on inlet guide vane assembly  
 Furnish and install a new Trane OEM remote air cooled AFDs to replace existing starters for enhanced efficiency  
 Furnish and install new Trane OEM Earthwise purges with 5-year Trane warranties  
 Furnish and install new Trane OEM purge solenoid valves  
 Furnish and install Trane OEM oil pump and oil pump motors  
 Furnish and install new Trane OEM motor exchanges  
 Verify proper motor operation  
 Cleaning and inspection of the lubrication system including the regulator, filters, heating elements, and sump\*  
 Cleaning and inspection of economizer and liquid line flanges\*  
 Reassembly of the centrifugal compressor, auxiliary vapor and liquid lines, and sight glasses with all new Trane gaskets.  
 Furnish and install new Trane OEM relief valve carbon disks and gaskets  
 Remove and repair chiller insulation at evaporator heads as needed for Renewals  
 Verification and adjustment of the controls and measuring devices  
 Chiller evacuation and leak testing to Trane specifications  
 Charge with refrigerant and adjust charge as necessary (any additional refrigerant required must be provided by the Owner. Owner's approval will be required if refrigerant cleaning or additional refrigerant is needed.)  
 Start-up and operation check by certified Trane technician  
 Verification of operating parameters and adjustment of the chillers as per its original specifications.  
 Update control sequence for new AFDs  
 New genuine Trane OEM Parts  
 Integration and connectivity to existing propriety Trane Tracer controls software  
 Update Trane factory chiller control sequence and graphics to accommodate the new chiller adaptive frequency controls  
 Trane 5-year extended warranty on compressor motor, bearings, and lubrication system including oil pump & oil pump motor.  
 Installation of Trane Renewal nameplates indicating Trane issued CenTraVac compressor Renewal serial number.  
 5-year Centravac Renewal parts and labor warranties.  
 5-year factory in-warranty scheduled services to cover term of warranty including annual service, condenser tube brushing and quarterly inspections with operating log reports.

All bidders must demonstrate ability to perform Trane authorized work as to not negate warranties on existing equipment and integration and connectivity to existing propriety Trane Tracer controls software integrated into the Burns Building. Any bid received that fails to meet this requirement will be found non-responsive.

**The 2020 Florida Statutes**

**Chapter 255 PUBLIC PROPERTY AND PUBLICLY OWNED BUILDINGS**

**255.255 Life-cycle costs**

(1) The department shall adopt rules and procedures, including energy conservation performance guidelines based on sustainable building ratings, for conducting a life-cycle cost analysis of alternative architectural and engineering designs and alternative major items of energy-consuming equipment to be retrofitted in existing state-owned facilities and for developing energy performance indices to evaluate the efficiency of energy utilization for competing designs in the construction of state-financed and leased facilities.

(2) Such life-cycle costs shall be the sum of:

(a) The reasonably expected fuel costs over the life of the building, as determined by the department, that are required to maintain illumination, power, temperature, humidity, and ventilation and all other energy-consuming equipment in a facility, and

(b) The reasonable costs of probable maintenance, including labor and materials, and operation of the building.

(3) To determine the life-cycle costs as defined in paragraph (2)(b), the department shall promulgate rules that shall include, but not be limited to:

(a) The orientation and integration of the facility with respect to its physical site.

(b) The amount and type of glass employed in the facility and the directions of exposure.

(c) The effect of insulation incorporated into the facility design and the effect on solar utilization of the properties of external surfaces.

(d) The variable occupancy and operating conditions of the facility and sub portions of the facility.

(e) An energy consumption analysis of the major equipment of the facility's heating, ventilating, and cooling system, lighting system, hot water system, and all other major energy-consuming equipment and systems as appropriate. This analysis shall include:

1. The comparison of alternative systems.

2. A projection of the annual energy consumption of major energy-consuming equipment and systems for a range of operation of the facility over the life of the facility.

3. The evaluation of the energy consumption of component equipment in each system, considering the operation of such components at other than full or rated outputs.

(4) Such rules shall be based on the best currently available methods of analysis, including such as those of the National Institute of Standards and Technology, the Department of Housing and Urban Development, and other federal agencies and professional societies and materials developed by the department. Provisions shall be made for an annual updating of rules and standards as required.

**History.** — s. 5, Ch. 74-187; s. 5, Ch. 85-256; s. 4, Ch. 90-320; s. 16, Ch. 98-279; s. 20, Ch. 2008-227.