SERVICE SPECIFICATIONS / INSPECTION REPORTS

ANNUAL MAINTENANCE SERVICES

A. The CONTRACTOR shall have a local office, staffed with competent and qualified manufacturer's factory trained and certified field service personnel to perform specified service and maintenance tasks on all equipment in accordance with the Maintenance Service Contract and terms and conditions of all equipment manufacturer's warranties and recommendations. Field service personnel shall be fully capable of providing technical assistance instruction, routine maintenance and emergency maintenance service on all system equipment components.

B. Schedule of Maintenance Service: All service performed by the CONTRACTOR shall include applicable items listed but shall not be limited to the following maintenance task:

1. Pumps:

a. Quarterly Service (4 times per year):

(1) Lubricate and check pump and motor bearings for abnormal temperature and unusual noise or vibration and repair as needed. Record findings.

(2) Check packing glands and seals for leakage. Adjust, tighten or replace as required. Record condition on service report.

(3) Record motor voltage and amperage. Record on service report.

(4) Check and record water pressures

(5) Certify performance of quarterly service and correct and report all discrepancies.

b. Semi-Annual Service (2 times per year):

(1) Remove and clean strainer for all condenser water pumps after tower cleaning.
(2) Check and blow down strainer for all chilled water pumps after tower cleaning. Remove and clean strainer if excessive debris is noted.

(3) Check condition of insulation, re-insulate as necessary.

(4) Log suction and discharge pressures.

(5) Clean and remove all dust and foreign matter. Clean all rust spots and scratches and touch up paint with matching color.

(6) Check motor coupling for alignment; mounting bolts are secure.

(7) Certify performance of semi-annual service and correct and report all discrepancies.

c. Annual Service (1 time per year):

(1) Check condition of insulation, re-insulate and paint as necessary.

(2) Clean and remove all dust and foreign matter. Clean all rust spots and scratches and touch up paint with matching color.

(3) Check motor coupling for alignment and that mounting bolts are secure.

(4) Certify performance of annual service and correct and report all discrepancies and actions taken.

2. Variable Frequency Drives (Pumps):

a. Quarterly Service (4 times per year)

(1) The CONTRACTOR shall be responsible for the correct operation of all variable frequency drives.

(2) Clean cabinet, check display, check contacts and replace if necessary; check for correct operation on a monthly basis.

(3) Certify performance and correct and report all discrepancies and actions taken.

(4) Tighten all electrical connections.

3. Instantaneous Gas Water Heaters:

a. Annual Service (1 time per year):

(1) Flush instantaneous water heaters per manufacturer's recommended procedures with virgin, food grade, white vinegar or citric acid.

(2) Remove the in-line filter at the cold water inlet and clean out any residue. Place filter back into unit. Replace filter if necessary.

(3) Certify performance of quarterly service and correct and report all discrepancies.

(4) Clean control compartment, burners and circulating air passage way with pressurized air.

(5) Check vent system, clean and repair.

(6) Flush heat exchanger and remove lime/scale built up.

4. Gas Water Heaters (Non-Condensing):

a. Quarterly Service (4 times per year)

(1) Drain heater and remove the cleanout jacket cover and tank cover to clean tank. Care must be taken to avoid breaking deposits loose that could damage the glass lining. Replace cleanout tank cover and jacket cover and refill with water.

(2) Check ignition systems temperature controls and any other water heater controls to ensure proper operation.

(3) Check flow of combustion and ventilation system. Clear the combustion air openings of any dirt, dust, or other restrictions.

(4) Check the pilot and burner flames to determine they are operating properly.

(5) Oil the blower motor. Inspect blower wheel for debris and clean as necessary. Inspect blower vent damper for proper movement, making sure the damper extends to the full open position after the blower reached full speed. Replace blower assembly as needed.

(6) Certify performance of quarterly service and correct and report all discrepancies.

b. Annual Service (1 time per year)

(1) Remove the main burner rack assembly and clean orifices and related parts of any foreign material. inspect the burner ports for obstructions or debris and clean with a wire brush, vacuum, or use mild detergent cleaning solution as necessary. Replace main burner rack to original position.

(2) Check combination temperature and pressure relief valves to ensure that the valve has not become encrusted with lime. Lift the lever at the top of the valve several times until the valve seats properly without leaking and operates freely.

(3) Inspect anode rod and replace every other year.

(4) Check water piping for leakage at joints, shut-off valves, and unions.

(5) Certify performance of annual service and correct and report all discrepancies.

5. Gas Water Heaters (Condensing):

   a. Quarterly Service (4 times per year)

      (1) Drain heater and flush tank.

      (2) Check ignition systems temperature controls and any other water heater controls to ensure proper operation.

      (3) Inspect the condensate elbow assembly for blockage.

      (4) Certify performance of quarterly service and correct and report all discrepancies.

   b. Annual Service (1 time per year)

      (1) Check combination temperature and pressure relief valves to ensure that the valve has not become encrusted with lime. Lift the lever at the top of the valve several times until the valve seats properly without leaking and operates freely.

      (2) Check water piping for leakage at joints, shut-off valves, and unions.

      (3) Check the combustion system is operating within acceptable parameters. Check inlet gas pressure to the gas control. Measure the products of combustion in the exhaust vent. Check the manifold pressure if the readings are outside recommended ranges.

      (4) Check ventilation and combustion air intake system for damage and blockage. Clear the combustion air openings of any dirt, dust, or other restrictions. Make sure all joints are secure and that the system is properly supported.

      (5) Inspect anode rod and replace every other year.

      (6) Certify performance of annual service and correct and report all discrepancies.

6. Heat Pumps:

   a. Quarterly Service (4 times per year)

      (1) Remove and clean air filters with mild soap and water. Replace air filters as necessary.

      (2) Evaporator fins exterior coils should be vacuumed.

      (3) Drain pan and drain tube should be cleaned and checked to prevent fouling.

(4) Lubricate pillow block bearings and inspect drive belt where equipped.

(5) Certify performance of quarterly service and correct and report all discrepancies.

b. Annual Service (1 time per year)

(1) Check all electrical connections.

(2) Check water piping for leakage at joints, shut-off valves, and unions.

(3) Check refrigerant to ensure adequate charge.

(4) Certify performance of annual service and correct and report all discrepancies.

7. Water Storage Tanks:

a. Annual Service (1 time per year)

(1) Drain and flush tank.

(2) Check combination temperature and pressure relief valves to ensure that the valve has not become encrusted with lime. Lift the lever at the top of the valve several times until the valve seats properly without leaking and operates freely.

(3) Inspect anode rod and replace every other year.

(4) Check water piping for leakage at joints, shut-off valves, and unions.

(5) Certify performance of annual service and correct and report all discrepancies.

E. Work Schedule: All maintenance work shall be performed between the hours of 8:00 a.m. to 4:00 p.m., on normal working days, Monday through Friday, excluding State Holidays.

F. Trouble Calls: Emergency service and repairs required between regular service calls shall be rendered within 24 hours after the CONTRACTOR is notified, non-work days excluded.

G. Maintenance Report/Checklist: The CONTRACTOR shall prepare and maintain a maintenance service report/checklist which shall include the following:

1. Date maintenance service was performed.

2. The name of the mechanic who performed said maintenance.

3. The type and cost (labor, materials, parts and equipment) of repair work performed on the unit, if any.

4. Documents and other data pertaining to the maintenance performed.

It will be the responsibility of the CONTRACTOR to maintain the report/checklist by recording the above noted data after each scheduled maintenance and emergency repairs, and have the checklist available for inspection at the building site. The report shall be sufficiently detailed to properly reflect the past maintenance history of the equipment.

H. Cleanup and Work Practices: The CONTRACTOR shall keep the job site free of debris, litter, discarded parts, etc. and shall clean all oil drippings during the daily progress of work. The CONTRACTOR shall remove all tools, parts and equipment from the service areas upon completion of the work. The CONTRACTOR shall exercise caution during the progress of his maintenance and repair work to prevent damage to the ceilings, roofing and other building structure. The CONTRACTOR shall restore all damages, caused by his negligence, to its original condition at his own expense.

I. All costs for periodic maintenance services shall be included in the bid price.

J. Charges for emergency situations, increases and changes in preventive maintenance services shall be submitted on a separate invoice and will be paid for by a separate purchase order.

K. The Maintenance Service Contract does not include repairs resulting from vandalism, negligent use or misuse of equipment.

L. Repairs/Emergency Services: Repairs and/or emergency services shall be paid to the CONTRACTOR on an actual time and material basis based on the hourly rate indicated on the Bid Offer Form.

M. Parts: Minor parts shall mean those parts costing less than $100.00. Major parts shall mean parts costing individually $100.01 or more as shown on the manufacturer's price list. Only new standard parts manufactured by the maker of each unit or parts of equal quality shall be used. The CONTRACTOR will be compensated by the HPHA for any major parts or equipment replacement.