SMARTPLATE INDIRECT FIRED WATER HEATER INSTALLATION FORM

*Please complete **ONE (1) form for each SITE** and return to AERCO for warranty validation within 30 days of start-up. After completion, e-mail this form to: **startup@AERCO.com***

Completed By:_____ Date:_____

Site Location

Installation Name: _____ Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Equipment Classification

Please enter the serial number and Unit Type for each installation below. Add additional units in ADDITIONAL NOTES if needed.

SmartPlate Unit Types

Single-Wall Heaters: SP23, SP33, SP45, SP69, SP150

Double-Wall Heaters: SPDW23, SPDW32, SPDW42, SPDW61, SPDW113

Double-Wall EV Heaters: SPEV30, SPEV40, SPEV60, SPEV90, SPEV140, SPEV140HF, SPEV200HF

	Unit Type		Serial Number
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
___		___	_____
_____		_____	_____

General Installation

1. Is the relief valve piped to drain or within 12” of floor? ☐ Yes ☐ No
2. Is there an electrical service switch at or near the unit? ☐ Yes ☐ No
3. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers? ☐ Yes ☐ No
4. Have all electrical components been verified for proper grounding? ☐ Yes ☐ No
5. Has all communication wire been properly shielded? ☐ Yes ☐ No
6. What is the system pressure? _____ PSI
7. The system application is:

   ☐ Potable Water ☐ Process ☐ Storage tank ☐ Other _____

8. Are all units installed in accordance with the clearances defined in the SmartPlate O&M? ☐ Yes ☐ No

   a. If not, why not? _____

Water Heater Installation

1. Is a hose bib installed in the outlet piping? ☐ Yes ☐ No
2. Are check valves installed in the cold water inlet? ☐ Yes ☐ No
3. Are check valves installed in the recirculation line? ☐ Yes ☐ No
4. Building recirculation is piped to: ☐ Inlet Side of Heater ☐ None
5. Record distance of building connections (ft) _____ & cold water feed (ft) _____ to the bank of unit(s)
6. What are the maximum/minimum design flow rates through the unit? Max _____ GPM, Min _____ GPM
   a. Were the maximum & minimum flow rates verified? ☐ Yes ☐ No
7. What is the design system flow rate? _____ GPM
8. What is the design plant delta T? _____ °F
9. Is there a buffer tank used with the SmartPlate Heater? ☐ Yes ☐ No
   a. If Yes, Is buffer tank supplied by AERCO? ☐ Yes ☐ No
   b. Number of buffer tank ports: ☐ 2 ports ☐ 4 ports
   c. Buffer tank volume: _____ Gallons
10. What is the setpoint? _____
11. What is the high limit set to? _____
12. What boiler water temp is being supplied? _____
13. What is the boiler water pressure? _____
14. Is the boiler water control valve installed in 2-way or 3-way mode? ☐ 2-Way ☐ 3-Way
15. If a SmartPlate EV, is an isolation valve installed on the bypass piping? ☐ Yes ☐ No
16. Does the SmartPlate have a dedicated boiler pump? ☐ Yes ☐ No
17. What is the flow rate of the pump? _____ GPM
18. Has the flow been verified? ☐ Yes ☐ No

For SmartPlate Heaters Using a Storage Tank

1. Domestic Storage tank is: ☐ Stratified ☐ Accumulator
2. Does tank have? ☐ Baffle ☐ Dispersion Tube
3. What is the storage tank's volume? _____ Gallons
4. What is the heater outlet temperature? _____ °F
5. Position of aquastat: ☐ Upper 1/3 ☐ Middle 1/3 ☐ Lower 1/3 ☐ No aquastat
6. What is the aquastat temperature setting? _____ °F
7. Does the aquastat control the pump between the tank and heater? ☐ Yes ☐ No
8. Is a throttling valve installed between the pump and heater? ☐ Yes ☐ No
9. Is there a bypass loop around the pump? ☐ Yes ☐ No
10. What is the capacity of pump between the tank and heater? _____ GPM

Mode of Operation

If Network (MODBUS), the network type is (choose one):

☐ Gateway ☐ Other: _____

☐ ProtoNode

If Building Automation System (BAS) Protocol is in use (choose one):

☐ BACNet (choose one):

☐ IP (ProtoNode Only) ☐ MS/TP

☐ PTP ☐ ARC156 (XPC Model Only)

☐ Johnson Controls - N2

☐ LonWorks

Water Quality

AERCO recommends that a sample of the unit's input water supply be tested to determine if it will have an adverse effect on the unit. Testing can be via a standard water quality test kit, widely available at retail hardware and home improvement stores. The following questions can be answered by such test kits.

1. What is the pH of the water? _____ (a pH between 6.5 to 9.5 is recommended)
2. What is the hardness of the water? _____ Grains per Gallon (1-10 is recommended)
3. What is the TDS (Total Dissolved Solids) of the water? _____ PPM (less than 350 is recommended)
4. Is there a water softening or treatment system installed? ☐ Yes ☐ No
   a. If yes, what type?
      ☐ Salt ☐ No Salt ☐ Chemical Injection ☐ Other _____

Summary

1. Are the water heater(s) installed in accordance with AERCO guidelines and industry best practices? ☐Yes ☐No
   a. If No, please describe the issues.

   b. Who has been contacted? Please provide name & number for each person contacted (check all that apply)?
      ☐ AERCO Applications Engineer: _____ ☐ General Contractor: _____
      ☐ Mechanical Contractor: _____ ☐ Building Owner: _____
      ☐ Design Engineer: _____ ☐ Plumber: _____
      ☐ Controls Engineer: _____ ☐ Electrician: _____
2. Is there any conflict between the Installation & the Engineer's Specification or Design Plans? ☐Yes ☐No
   a. If Yes, please describe the issues.

   b. Who has been contacted? Please provide name & number for each person contacted (check all that apply)?
      ☐ AERCO Applications Engineer: _____ ☐ General Contractor: _____
      ☐ Mechanical Contractor: _____ ☐ Building Owner: _____
      ☐ Design Engineer: _____ ☐ Plumber: _____
      ☐ Controls Engineer: _____ ☐ Electrician: _____
3. Are there any conflicts or physical restrictions that will prevent the water heaters from receiving proper preventative maintenance in the future? ☐Yes ☐No
   a. If Yes, please describe the issues.

   b. Who has been contacted? Please provide name & number for each person contacted (check all that apply)?
      ☐ AERCO Applications Engineer: _____ ☐ General Contractor: _____
      ☐ Mechanical Contractor: _____ ☐ Building Owner: _____
      ☐ Design Engineer: _____ ☐ Plumber: _____
      ☐ Controls Engineer: _____ ☐ Electrician: _____
4. Please outline any exceptions that have been granted by AERCO Applications Engineering for this installation.

   a. AERCO Application Engineering Sign Off (If Necessary):

ADDITIONAL NOTES: