AM SERIES BOILER INSTALLATION FORM

*Please complete **one (1) form for each SITE** containing AM Series **BOILERS**. 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:** _____

Location

Installation Name: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Registered Equipment Classification

	☐ 399B	☐ 500B	☐ 750B	☐ 1000B
Serial #s				
(Add additional				
in Notes if				
needed)				

General Installation

1. Is the relief valve piped to drain or within 12" of floor?	☐ Yes	☐ No
2. Is the condensate disposal system adequately sized and does it drain properly?	☐ Yes	☐ No
3. Is the condensate disposal system installed in accordance with the instructions in the latest version of the AERCO O&M?	☐ Yes	☐ No
4. Is there an electrical service switch at the unit?	☐ Yes	☐ No
5. Is there any electrical conduit or piping attached to the unit's sheet metal?	☐ Yes	☐ No
6. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers?	☐ Yes	☐ No
7. Is there an adequately sized condensate neutralizer kit installed?	☐ Yes	☐ No
a. If No, why not? _____		
8. Have all electrical components been verified for proper grounding?	☐ Yes	☐ No
9. Has all communication wire been properly shielded?	☐ Yes	☐ No
10. Does condensate gravity drain?	☐ Yes	☐ No
11. Is a condensate pump used?	☐ Yes	☐ No

Boiler Gas Supply

The questions below are related to the information in the AM Series Gas Supply Application Guide, GF-146-G

1. Type of Gas Supply: ☐ Natural Gas ☐ Propane
2. What is the static gas supply pressure to the boiler? _____
3. If the static pressure is more than 13" WC, is an external gas supply regulator installed? ☐ Yes ☐ No
4. What is the static gas supply pressure to the external supply regulators? _____
5. What is the make and model number of the external gas supply regulator? Make _____
   Model _____
6. Are the external gas supply vent regulator lines installed per local code & manufacturer's requirement? ☐ Yes ☐ No
7. If this is a lock-up style external regulator, what is the size of the orifice? _____
8. The external gas supply vent regulator lines are: ☐ Individually run
   ☐ Manifolded together with other regulator vent lines
9. What is the BTU content of the gas? _____
10. What is the size of the gas supply header? _____
11. What is the length of gas pipe from the main meter? _____
12. Are there any other appliances connected to the gas supply line? ☐ Yes ☐ No
    a. If Yes, please indicate the total BTU connected load: _____ MBH
13. Is the gas supply system installed in accordance with the AM Series Gas & Supply Application Guide, GF-146-G ☐ Yes ☐ No

Venting

The questions below are related to the information in the AM Series Venting Application Guide, GF-146-V

1. What is the total vent length run? _____
   a. What is the total number of elbows in the ducting? 30° _____ 45° _____ 90° _____
   b. Are all elbows spaced 5 feet apart and 2 feet from the starter piece on the first elbow? ☐ Yes ☐ No
2. Is the vent sealed with RTV? ☐ Yes ☐ No
3. Is the vent pitched back toward the boiler (1/4" per ft. length) per the AM Series Venting Guide? ☐ Yes ☐ No
4. Venting material used is (choose one): ☐ AL29-4C ☐ Polypropylene ☐ PVC ☐ cPVC
5. Please describe venting configuration (check all that apply):
   ☐ Individual Vent ☐ Sidewall Termination ☐ Atmosphere (Natural Draft) ☐ Roof Termination
   ☐ Damper/Fan ☐ Breeched/Common (Units Vented Together)
6. Does the layout (overall length, pressure drop, breeching calculations, vent pipe wall thickness, etc.) comply with GF-146-V? ☐ Yes ☐ No

Combustion Air

The questions below are related to the information in the AM Series Venting Application Guide, GF-146-V

1. Combustion air supplied through (check all that apply):
   - ☐ Louvers to outside wall
   - ☐ Horizontal ducting
   - ☐ Direct or ducted combustion air
   - ☐ Louvers to another room
   - ☐ Vertical ducting
   - ☐ Combustion air fan
2. What is the size of the ducting to individual units? _____
   a. What is the size of the common ducting, if applicable? _____
   b. What is the size of louvered opening? _____
3. Are there any draft inducers, combustion air fans or draft controllers on site? ☐ Yes ☐ No
   a. If Yes, list all that apply: _____
   b. Explain configuration: _____
4. Does the layout (overall length, pressure drop, breeching calculations, etc.) comply with GF-146-V? ☐ Yes ☐ No

Hydronic Installation

1. If there are multiple units, are the units piped “reverse-return”? ☐ Yes ☐ No
2. Are balancing valves or circuit setters installed? ☐ Yes ☐ No
3. Are motorized isolation valves installed? ☐ Yes ☐ No
4. What are the minimum/maximum design flow rates through the unit? Min: _____ GPM, Max: _____ GPM
   a. Were the maximum & minimum flow rates verified? ☐ Yes ☐ No
5. Is the system (check all that apply):
   - ☐ Water Source Heat Pump
   - ☐ Primary/Secondary Pumping
   - ☐ Other _____
   - ☐ A Variable Flow System
   - ☐ Used for Reheat
   - ☐ Reverse Return
   - ☐ Combination Control
6. What is the design system flow rate? _____
7. What is the design plant delta T? _____
8. Are strainers installed in both the primary and secondary loops? ☐ Yes ☐ No
9. What is the strainer mesh size? _____
10. What is the system pressure? _____
11. What is the primary loop GPM? _____
12. What is the secondary loop GPM? _____

Mode of Operation

Individual Unit Control (choose all that apply):

- ☐ Remote Set Point (Analog)
- ☐ Remote Set Point (Network/MODBUS)
- ☐ Direct Drive
- ☐ Indoor/Outdoor Reset
- ☐ Constant Setpoint
- ☐ Combination Boiler/Water Heater
- ☐ ACS (see below)
- ☐ Other: _____

If ACS is used, the mode of operation is in use (choose one):

- ☐ Constant Setpoint
- ☐ Indoor/Outdoor Reset
- ☐ Combination Control Panel (CCP)
- ☐ Network (MODBUS)

If Network (MODBUS) is chosen above, the network type is in use (choose one):

- ☐ Gateway
- ☐ ProtoNode
- ☐ Other: _____

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

- ☐ BACNet (choose one):
  - ☐ IP (ProtoNode Only)
  - ☐ PTP
  - ☐ MS/TP
  - ☐ ARC156 (XPC Model Only)
- ☐ Johnson Controls - N2
- ☐ LonWorks

Summary

1. Are the boiler(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 boilers 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:

AM SERIES WATER HEATER INSTALLATION FORM

*Please complete **one (1) form for each SITE** containing AM Series **WATER HEATERS**. 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:** _____

Location

Installation Name: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Registered AM Series Water Heaters

	☐ 199	☐ 250	☐ 399	☐ 500	☐ 750	☐ 1000
Serial #s						
(Add additional in Notes if needed)						

ASME Stamp: ☐ H ☐ HLW

WH Style: ☐ Standalone ☐ Skid ☐ Integrated

General Installation

1. Is the relief valve piped to drain or within 12" of floor? ☐ Yes ☐ No
2. Is the condensate disposal system installed in accordance with the instructions in the latest version of the AERCO O&M? ☐ Yes ☐ No
3. Is there an electrical service switch at the unit? ☐ Yes ☐ No
4. Is the unit's drain piped to the floor or a drain or within 12" of the floor? ☐ Yes ☐ No
5. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers? ☐ Yes ☐ No
6. Does each unit have a strainer installed in the inlet to the water heater? ☐ Yes ☐ No
7. What is the strainer mesh size? _____
8. What is the system pressure? _____
9. Have all electrical components been verified for proper grounding? ☐ Yes ☐ No
10. Has all communication wire been properly shielded? ☐ Yes ☐ No
11. Does condensate gravity drain? ☐ Yes ☐ No
12. Is a condensate pump used? ☐ Yes ☐ No
13. Is the system application: ☐ Potable Water ☐ Process ☐ Storage tank ☐ Other _____

Water Heater Gas Supply

The questions below are related to the information in the AM Series Gas Supply Application Guide, GF-146-G

1. Type of Gas Supply: ☐ Natural Gas ☐ Propane
2. What is the static gas supply pressure to the water heater? _____
3. If the static pressure is more than 13" WC, is an external gas supply regulator installed? ☐ Yes ☐ No
4. What is the static gas supply pressure to the external supply regulators? _____
5. What is the make and model number of the external gas supply regulator? Make _____
   Model _____
6. Are the external gas supply vent regulator lines installed per local code & manufacturer's requirement? ☐ Yes ☐ No
7. If this is a lock-up style external regulator, what is the size of the orifice? _____
8. The external gas supply vent regulator lines are: ☐ Individually run
   ☐ Manifolded together with other regulator vent lines
9. What is the BTU content of the gas? _____
10. What is the size of the gas supply header? _____
11. What is the length of gas pipe from the main meter? _____
12. Are there any other appliances connected to the gas supply line? ☐ Yes ☐ No
    a. If Yes, please indicate the total BTU connected load: _____ MBH
13. Is the gas supply system installed in accordance with the AM Series Gas & Supply Application Guide, GF-146-G ☐ Yes ☐ No

Venting

The questions below are related to the information in the AM Series Venting Application Guide, GF-146-V

1. What is the total vent length run? _____
   a. What is the total number of elbows in the ducting? 30° _____ 45° _____ 90° _____
   b. Are all elbows spaced 5 feet apart and 2 feet from the starter piece on the first elbow? ☐ Yes ☐ No
2. Is the vent sealed with RTV? ☐ Yes ☐ No
3. Is the vent pitched back toward the boiler (1/4" per ft. length) per the AM Series Venting Guide? ☐ Yes ☐ No
4. Venting material used is (choose one): ☐ AL29-4C ☐ Polypropylene ☐ PVC ☐ cPVC
5. Please describe venting configuration (check all that apply):
   ☐ Individual Vent ☐ Sidewall Termination ☐ Atmosphere (Natural Draft) ☐ Roof Termination
   ☐ Damper/Fan ☐ Breeched/Common (Units Vented Together)
6. Does the layout (overall length, pressure drop, breeching calculations, etc.) comply with *GF-146-V*? ☐ Yes ☐ No

Combustion Air

The questions below are related to the information in the AM Series Venting Application Guide, GF-146-V

1. Combustion air supplied through (check all that apply):
   - ☐ Louvers to outside wall
   - ☐ Horizontal ducting
   - ☐ Direct or ducted combustion air
   - ☐ Louvers to another room
   - ☐ Vertical ducting
   - ☐ Combustion air fan
2. What is the size of the ducting to individual units? _____
   a. What is the size of the common ducting, if applicable? _____
   b. What is the size of louvered opening? _____
3. Are there any draft inducers, combustion air fans or draft controllers on site? ☐ Yes ☐ No
   a. If Yes, list all that apply: _____
   b. Explain configuration: _____
4. Does the layout (overall length, pressure drop, breeching calculations, vent pipe wall thickness, etc.) comply with *GF-146-V*? ☐ Yes ☐ No

AM Series Water Heater Installation

1. What is the storage tank's capacity? _____ Gal.
2. Are isolation valves installed in the ***inlet*** piping? ☐ Yes ☐ No
3. Are isolation valves installed in the ***outlet*** piping? ☐ Yes ☐ No
4. Are check valves installed in the cold water inlet? ☐ Yes ☐ No
5. Are check valves installed in the recirculation line? ☐ Yes ☐ No
6. Building recirculation is piped to: ☐ Inlet Side of Heater ☐ Tank ☐ None
7. Record distance of recirculation connections (ft) _____ & cold water feed (ft) _____ through bank of unit(s)
8. Are motorized isolation valves installed (external to the units)? ☐ Yes ☐ No
9. 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
10. What is the design system flow rate? _____
11. What is the design plant delta T? _____
12. What is the manufacturer and model number of the anti-scald mixing valve?

_____

Mode of Operation

Individual Unit Control (choose one):

- ☐ Remote Set Point (0 to 10 Volt Input)
- ☐ Remote Set Point (Network/MODBUS)
- ☐ Indoor/Outdoor Reset
- ☐ Constant Set Point
- ☐ Space heating and Domestic Hot Water (DHW)
- ☐ Cascade Sequencer (specify manufacturer)

_____

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 7.5 to 9.5 is recommended)
2. What is the hardness of the water? _____ Grains per Gallon (5-20 is recommended)
3. What is the TDS (Total Dissolved Solids) of the water? _____ PPM (less than 200 is required)
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:

BENCHMARK BOILER 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:** _____

Location

Installation Name: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Equipment Classification

Unit Type:	☐ **BMK750**	☐ **BMK1000**	☐ **BMK1500**	☐ **BMK2000**	☐ **BMK2500**	☐ **BMK3000**	☐ **BMK6000**
	_____	_____	_____	_____	_____	_____	_____
Unit Serial	_____	_____	_____	_____	_____	_____	_____
Number(s)	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____
(Add	_____	_____	_____	_____	_____	_____	_____
additional	_____	_____	_____	_____	_____	_____	_____
in Notes if	_____	_____	_____	_____	_____	_____	_____
needed)	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____	_____	_____

General Installation

1. Is the condensate disposal system adequately sized and does it drain properly? ☐ Yes ☐ No
2. Is the condensate disposal system installed in accordance with the instructions in the latest version of the AERCO O&M? ☐ Yes ☐ No
3. Is the relief valve piped to drain or within 12” of floor? ☐ Yes ☐ No
4. Is there an electrical service switch at or near the unit? ☐ Yes ☐ No
5. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers? ☐ Yes ☐ No
6. Is there an adequately sized condensate neutralizer kit installed? ☐ Yes ☐ No
7. Have all electrical components been verified for proper grounding? ☐ Yes ☐ No
8. Has all communication wire been properly shielded? ☐ Yes ☐ No
9. Are all units installed in accordance with the clearances defined in the Innovation O&M? ☐ Yes ☐ No
   a. If not, why not? _____

Gas Supply

The questions below are related to the information in the Benchmark Gas Supply Design Guide, GF-2030

1. Type of Gas Supply ☐ Natural Gas (NG) ☐ Propane (LP) ☐ Dual Fuel (DF)
2. Are external gas supply regulators installed in accordance with the AERCO O&M requirements? Natural Gas: ☐ Yes ☐ No Propane: ☐ Yes ☐ No
   a. If no, please confirm gas pressure Natural Gas: _____ Propane: _____
3. What is the make and model number of the external gas supply regulators?
   Natural Gas: Make: _____ Model: _____
   Propane: Make: _____ Model: _____
4. What is the static gas supply pressure to the external supply regulator? NG: _____ LP: _____
5. Were the external gas supply regulators supplied by AERCO? ☐ Yes ☐ No
   a. If No, please attach regulator specification sheet and return to AERCO with this form.
6. Are the external gas supply vent regulator lines installed per local code & manufacturer's requirement? ☐ Yes ☐ No
7. What is the size & length of the gas supply header? Natural Gas: _____ Propane: _____
8. Are there any other appliances connected to the gas supply line? ☐ Yes ☐ No
   a. If Yes, please indicate the total BTU connected load: _____ MBH
9. Is the gas supply system installed in accordance with the AERCO BMK Gas Components & Supply Design Guide GF-2030? ☐ Yes ☐ No

Venting

The questions below are related to the information in the Benchmark Venting and Combustion Air Guide, GF-2050

1. What is the total vent length run? _____
   a. What is the total number of elbows in the ducting? 30° _____ 45° _____ 90° _____
   b. Are all elbows spaced 5 feet apart and 2 feet from the starter piece on the first elbow? ☐ Yes ☐ No
2. Is the vent pitched back toward the boiler (1/4" per ft. length) per the AERCO Venting Guide? ☐ Yes ☐ No
3. Venting material used is (choose one): ☐ AL29-4C ☐ Polypropylene ☐ PVC ☐ CPVC
4. Venting manufacturer is: _____
5. Please describe venting configuration (check all that apply):
   ☐ Individual Vent ☐ Sidewall Termination ☐ Roof Termination ☐ Damper/Fan
   ☐ Breeched/Common (Units Vented Together)
6. Does the layout (overall length, pressure drop, breeching calculations, vent pipe wall thickness, etc.) comply with GF-2050? ☐ Yes ☐ No

Combustion Air

The questions below are related to the information in the Benchmark Venting and Combustion Air Guide, GF-2050

1. Combustion air supplied through (check all that apply):
   ☐ Louvers to outside wall ☐ Horizontal ducting ☐ Direct or ducted combustion air
   ☐ Louvers to another room ☐ Vertical ducting ☐ Combustion air fan
2. What is the size of the ducting to individual units? _____
   a. What is the size of the common ducting, if applicable? _____
   b. What is the size of louvered opening? _____
3. Are there any draft inducers, combustion air fans or draft controllers on site? ☐ Yes ☐ No
   a. If Yes, list all that apply: _____
   b. Explain configuration: _____
4. Does the layout (overall length, pressure drop, breeching calculations, etc.) comply with GF-2050? ☐ Yes ☐ No

Hydronic Installation

1. If there are multiple units, are the units piped “reverse-return”? ☐ Yes ☐ No
2. Are balancing valves or circuit setters installed? ☐ Yes ☐ No
3. Are motorized isolation valves installed? ☐ Yes ☐ No
4. 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
5. Is the ***remote interlock*** connection on the C-More utilized? ☐ Yes ☐ No
   a. Please list all devices connected to the remote interlock: _____
6. Is the ***delayed interlock*** utilized & receiving external power: ☐ Yes ☐ No
   a. Please list all devices connected to the remote interlock: _____
7. Is the system (check all that apply):
   - ☐ Water Source Heat Pump
   - ☐ Primary/Secondary Pumping
   - ☐ Other (Please specify) _____
   - ☐ A Variable Flow System
   - ☐ Used for Reheat
   - ☐ Reverse Return
   - ☐ Combination Control
8. What is the design system flow rate? _____ GPM
9. What is the design plant delta T? _____ °F

Mode of Operation

Individual Unit Control (choose one):

- ☐ Remote Set Point (Analog)
- ☐ Remote Set Point (Network/MODBUS)
- ☐ Direct Drive
- ☐ Indoor/Outdoor Reset
- ☐ Constant Setpoint
- ☐ Combination Boiler/Water Heater
- ☐ ACS (see below)
- ☐ BMS (see below)
- ☐ BMS II (see below)
- ☐ BST (see below)

If BST, ACS, BMS or BMS II is used, the mode of operation is (choose one):

- ☐ Constant Setpoint
- ☐ Indoor/Outdoor Reset
- ☐ Combination Control Panel (CCP)
- ☐ Network (MODBUS)

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

- ☐ Gateway
- ☐ ProtoNode
- ☐ Other: (Please specify) _____

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

- ☐ BACNet (choose one):
  - ☐ IP (ProtoNode Only)
  - ☐ PTP
  - ☐ MS/TP
  - ☐ ARC156 (XPC Model Only)
- ☐ Johnson Controls - N2
- ☐ LonWorks

Summary

1. Is the boiler plant 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 boiler plant 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 if necessary.

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

ADDITIONAL NOTES:

INDIRECT FIRED EQUIPMENT INSTALLATION FORM

*Please complete **ONE (1) form for each SITE** at which Indirect Fired units are installed and return it to AERCO for warranty validation within 30 days of start-up. After completion, e-mail this form to: **STARTUP@AERCO.COM**.*

Completed By: _____ **Date:** _____

Unit & Location

Installation Name: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Equipment Classification

Choose the unit type and enter the serial number for each unit. Add additional in ADDITIONAL NOTES if needed.

☐ Double Wall ☐ B+II WaterWizard Water Heater

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

General Installation

1. Does the installation meet AERCO recommended clearances? ☐ Yes ☐ No
2. Does condensate gravity drain? ☐ Yes ☐ No
3. Is there any lift in the condensate piping? ☐ Yes ☐ No
4. Does condensate drain to a receiver? ☐ Yes ☐ No
5. Is the relief valve piped to drain or within 12" of floor? ☐ Yes ☐ No
6. Is the unit's drain piped to the floor or a drain? ☐ Yes ☐ No
7. Is there a drip leg installed in the steam service piping prior to AERCO control valve? ☐ Yes ☐ No
8. Is there a Y-line steam strainer before the control valve? ☐ Yes ☐ No
9. If yes, what is the strainer mesh size? _____
10. Is a recirculation system used to maintain system water temperature? ☐ Yes ☐ No
11. If yes, what is the recirculation pump capacity in GPM? _____ GPM
12. Is heat trace used to maintain system water temperatures? ☐ Yes ☐ No
13. What is the outlet water temperature set point? _____ °F
14. What is the high limit temperature switch setting? _____ °F
15. For a multiple unit installation, does the system utilize one or more of the following balancing methods?

Reverse return piping ☐Yes ☐No

Balancing valves ☐Yes ☐No

For Heaters Using a Storage Tank

1. Storage tank is: ☐ Stratified ☐ Accumulator
2. Does tank have? ☐ Baffle ☐ Dispersion Tube
3. What is the storage tank's volume? _____ Gallons
4. If using an accumulator, is an F&T trap installed on the heaters ☐ Yes ☐ No
5. What is the heater outlet temperature? _____ °F
6. Position of aquastat: ☐ Upper 1/3 ☐ Middle 1/3 ☐ Lower 1/3 ☐ No aquastat
7. What is the aquastat temperature setting? _____ °F
8. Does the aquastat control the pump between the tank and heater? ☐ Yes ☐ No
9. Is a throttling valve installed between the pump and heater? ☐ Yes ☐ No
10. Is there a bypass loop around the pump? ☐ Yes ☐ No
11. What is the capacity of pump between the tank and heater? _____ GPM

Water Heater Installation

1. Are isolation valves installed in the inlet piping? ☐ Yes ☐ No
2. Are isolation valves installed in the outlet piping? ☐ Yes ☐ No
3. Is a hose bib installed in the outlet piping? ☐ Yes ☐ No
4. Are check valves installed in the cold water inlet? ☐ Yes ☐ No
5. Are check valves installed in the recirculation line? ☐ Yes ☐ No
6. Building recirculation is piped to: ☐ Inlet Side of Heater ☐ None
7. Record distance of building connections (ft) _____ & cold water feed (ft) _____ to the bank of unit(s)
8. 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
9. What is the design system flow rate? _____ GPM
10. What is the design plant delta T? _____ °F

Valve Information

1. Inlet steam pressure to valve?
2. Has the water flow been balanced between the units? ☐ Yes ☐ No
3. Type of valve: ☐ Pneumatic ☐ Self-Contained ☐ Electric
   ☐ AERCO ☐ Other _____

(please specify model/manufacturer)

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

Summary

1. Are all units 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 boiler plant 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 if necessary.

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

ADDITIONAL NOTES:

MODULEX BOILER 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:** _____

Location

Installation Name: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Registered Equipment Serial Numbers

	☐ MLX EXT 321	☐ MLX EXT 481	☐ MLX EXT 641	☐ MLX EXT802	☐ MLX EXT 962	☐ MLX EXT 1123
Serial #s						

	☐ MLX EXT 1530	☐ MLX EXT 1912	☐ MLX EXT 2295	☐ MLX EXT 2677	☐ MLX EXT 3060
Serial #s					

	☐ MLX 303	☐ MLX 454	☐ MLX 606	☐ MLX 757	☐ MLX 909	☐ MLX 1060
Serial #s						

Add serial numbers of additional units in NOTES if necessary

General Installation

1. Is the unit installed inside or outside the building? ☐ Inside ☐ Outside
2. Is the relief valve piped to drain or within 12" of floor? ☐ Yes ☐ No
3. Is the condensate disposal system adequately sized and does it drain properly? ☐ Yes ☐ No
4. Is the condensate disposal system installed in accordance with the instructions in the latest version of the AERCO O&M? ☐ Yes ☐ No
5. Is there an electrical service switch at the unit? ☐ Yes ☐ No
6. Is the unit's drain piped to the floor or a drain or within 12" of the floor? ☐ Yes ☐ No
7. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers? ☐ Yes ☐ No
8. Is there an adequately sized condensate neutralizer kit installed? ☐ Yes ☐ No
   a. If No, why not? _____
9. Have all electrical components been verified for proper grounding? ☐ Yes ☐ No
10. Has all communication wire been properly shielded? ☐ Yes ☐ No
11. Does condensate gravity drain? ☐ Yes ☐ No
12. Is a condensate pump used? ☐ Yes ☐ No

Gas Supply

The questions below are related to the information in the Modulex Gas Supply Application Guide, GF-136-G

1. Type of Gas Supply: ☐ Natural Gas ☐ Propane
2. What is the static gas supply pressure to the water heater? _____
3. If the static pressure is more than 10.5" WC, is an external gas supply regulator installed? ☐ Yes ☐ No
4. What is the static gas supply pressure to the external supply regulators? _____
5. What is the make and model number of the external gas supply regulator? Make _____
   Model _____
6. Are the external gas supply vent regulator lines installed per local code & manufacturer's requirement? ☐ Yes ☐ No
7. If this is a lock-up style external regulator, what is the size of the orifice? _____
8. The external gas supply vent regulator lines are: ☐ Individually run
   ☐ Manifolded together with other regulator vent lines
9. What is the BTU content of the gas? _____
10. What is the size of the gas supply header? _____
11. What is the length of gas pipe from the main meter? _____
12. Are there any other appliances connected to the gas supply line? ☐ Yes ☐ No
    a. If Yes, please indicate the total BTU connected load: _____ MBH
13. Is the gas supply system installed in accordance with the Modulex Gas & Supply Application Guide, GF-136-G ☐ Yes ☐ No

Venting

The questions below are related to the information in the Modulex Venting Application Guide, GF-136-V

1. What is the total vent length run? _____
   a. What is the total number of elbows in the ducting? 30° _____ 45° _____ 90° _____
   b. Are all elbows spaced 5 feet apart and 2 feet from the starter piece on the first elbow? ☐ Yes ☐ No
2. Is the vent sealed with RTV? ☐ Yes ☐ No
3. Is the vent pitched back toward the boiler (1/4" per ft. length) per the Modulex Venting Guide? ☐ Yes ☐ No
4. Venting material used is (choose one): ☐ AL29-4C ☐ Polypropylene ☐ PVC ☐ CPVC
5. Venting manufacturer is: _____
6. Please describe venting configuration (check all that apply):
   ☐ Individual Vent ☐ Sidewall Termination ☐ Atmosphere (Natural Draft) ☐ Roof Termination
   ☐ Damper/Fan ☐ Breeched/Common (Units Vented Together)
7. Does the layout (overall length, pressure drop, breeching calculations, vent pipe wall thickness, etc.) comply with GF-136-V? ☐ Yes ☐ No

Combustion Air

The questions below are related to the information in the Modulex Venting Application Guide, GF-136-V

1. Combustion air supplied through (check all that apply):
   ☐ Louvers to outside wall ☐ Horizontal ducting ☐ Direct or ducted combustion air
   ☐ Louvers to another room ☐ Vertical ducting ☐ Combustion air fan
2. What is the size of the ducting to individual units? _____
   a. What is the size of the common ducting, if applicable? _____
   b. What is the size of louvered opening? _____
3. Are there any draft inducers, combustion air fans or draft controllers on site? ☐ Yes ☐ No
   a. If Yes, list all that apply: _____
   b. Explain configuration: _____
4. Does the layout (overall length, pressure drop, breeching calculations, etc.) comply with GF-136-V? ☐ Yes ☐ No

Hydronic Installation

1. If there are multiple units, are the units piped “reverse-return”? ☐ Yes ☐ No
2. Are balancing valves or circuit setters installed? ☐ Yes ☐ No
3. Are motorized isolation valves installed? ☐ Yes ☐ No
4. What are the minimum/maximum design flow rates through the unit? Min: _____ GPM, Max: _____ GPM
   a. Were the maximum & minimum flow rates verified? ☐ Yes ☐ No
5. The system is (check all that apply):
   - ☐ Water Source Heat Pump
   - ☐ Primary/Secondary Pumping
   - ☐ Other (please specify) _____
   - ☐ A Variable Flow System
   - ☐ Used for Reheat
   - ☐ Reverse Return
   - ☐ Combination Control
6. What is the design system flow rate? _____
7. What is the design plant delta T? _____
8. Are strainers installed in both the primary and secondary loops? ☐ Yes ☐ No
9. What is the strainer mesh size? _____
10. What is the system pressure? _____
11. What is the primary loop GPM? _____
12. What is the secondary loop GPM? _____

Mode of Operation

Individual Unit Control (choose one):

- ☐ Remote Set Point (Analog)
- ☐ Remote Set Point (Network/MODBUS)
- ☐ Direct Drive
- ☐ Indoor/Outdoor Reset
- ☐ Constant Setpoint
- ☐ Combination Boiler/Water Heater
- ☐ ACS (see below)
- ☐ BMS (see below)
- ☐ BMS II (see below)
- ☐ Other

If ACS, BMS or BMS II is used, the mode of operation is in use (choose one):

- ☐ Constant Setpoint
- ☐ Indoor/Outdoor Reset
- ☐ Combination Control Panel (CCP)
- ☐ Network (MODBUS)

If Network (MODBUS) is chosen above, the network type is in use (choose one):

- ☐ Gateway
- ☐ ProtoNode
- ☐ Other: _____

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

- ☐ BACNet (choose one):
  - ☐ IP (ProtoNode Only)
  - ☐ PTP
  - ☐ MS/TP
  - ☐ ARC156 (XPC Model Only)
- ☐ Johnson Controls - N2
- ☐ LonWorks

ADDITIONAL NOTES:

Summary

1. Is the boiler plant 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 boiler plant 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 if necessary.

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

RECON 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: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Equipment Classification

Unit Type:	**RECON 500**	**RECON 1000**
Unit Serial Number(s)		
(Add additional in		
Notes if needed)		

General Installation

1. Is the condensate disposal system adequately sized and does it drain properly? ☐ Yes ☐ No
2. Is the condensate disposal system installed in accordance with the instructions in the latest version of the RECON O&M? ☐ Yes ☐ No
3. Is the relief valve piped to drain or within 12" of floor? ☐ Yes ☐ No
4. Is there an electrical service switch at or near the unit? ☐ Yes ☐ No
5. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers? ☐ Yes ☐ No
6. Is there an adequately sized condensate neutralizer kit installed? ☐ Yes ☐ No
7. Have all electrical components been verified for proper grounding? ☐ Yes ☐ No
8. Has all communication wire been properly shielded? ☐ Yes ☐ No
9. Does each unit have a strainer installed in inlet to the water heater? ☐ Yes ☐ No
10. What is the strainer mesh size? _____
11. What is the system pressure? _____ PSI
12. The system application is:

    ☐ Potable Water ☐ Process ☐ Storage tank ☐ Other _____

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

    a. If not, why not? _____

Gas Supply

The questions below are related to the information in the Innovation-Recon Gas Supply Design Guide, GF-5030

1. Type of Gas Supply ☐ Natural Gas (NG) ☐ Propane (LP) ☐ Dual Fuel (DF)
2. What is the dynamic gas supply pressure to the water heater under load? NG _____ LP _____
3. If the static pressure is more than 14" WC, is an external gas supply regulator installed per unit?
   Natural Gas: ☐ Yes ☐ No
   Propane: ☐ Yes ☐ No
4. What is the make and model number of the external gas supply regulators?
   Natural Gas: Make: _____ Model: _____
   Propane: Make: _____ Model: _____
5. What is the static gas supply pressure to the external supply regulator? NG: _____ LP: _____
6. Were the external gas supply regulators supplied by AERCO? ☐ Yes ☐ No
   a. If No, please attach regulator specification sheet to this form and return both to AERCO.
7. Are the external gas supply vent regulator lines installed per local code & manufacturer's requirement? ☐ Yes ☐ No
8. What is the size & length of the gas supply header? Natural Gas: _____ Propane: _____
9. Are there any other appliances connected to the gas supply line? ☐ Yes ☐ No
   a. If Yes, please indicate the total BTU connected load: _____ MBH
10. Is the gas supply system installed in accordance with the Innovation-Recon Gas Components & Supply Design Guide GF-5030? ☐ Yes ☐ No

Venting

The questions below are related to the information in the Innovation-Recon Venting and Combustion Air Guide, GF-5050

1. What is the total vent length run? _____
   a. What is the total number of elbows in the ducting? 30° _____ 45° _____ 90° _____
   b. Are all elbows spaced 5 feet apart and 2 feet from the starter piece on the first elbow? ☐ Yes ☐ No
2. Is the vent pitched back toward the boiler (1/4" per ft. length) per the AERCO Venting Guide? ☐ Yes ☐ No
3. Venting material used is (choose one): ☐ AL29-4C ☐ Polypropylene ☐ PVC ☐ CPVC
4. Venting manufacturer is: _____
5. Please describe venting configuration (check all that apply):
   ☐ Individual Vent ☐ Sidewall Termination ☐ Roof Termination ☐ Damper/Fan
   ☐ Breeched/Common (Units Vented Together)
6. Does the layout (overall length, pressure drop, breeching calculations, vent pipe wall thickness, etc.) comply with GF-5050? ☐ Yes ☐ No

Combustion Air

The questions below are related to the information in the Innovation-Recon Venting and Combustion Air Guide, GF-5050

1. Combustion air supplied through (check all that apply):

   ☐ Louvers to outside wall vent ☐ Horizontal ducting ☐ Direct or ducted combustion air

   ☐ Louvers to another room ☐ Vertical ducting ☐ Combustion air fan

2. What is the size of the ducting to individual units? _____

   a. What is the size of the common ducting, if applicable? _____

3. Are there any draft inducers, combustion air fans or draft controllers on site? ☐ Yes ☐ No

   a. If Yes, list all that apply: _____

   b. Explain configuration: _____

4. Does the layout (overall length, pressure drop, breeching calculations, etc.) comply with GF-5050? ☐Yes ☐No

RECON Water Heater Installation

1. Are isolation valves installed in the inlet piping? ☐ Yes ☐ No
2. Are isolation valves installed in the outlet piping? ☐ Yes ☐ No
3. Is a hose bib installed in the outlet piping? ☐ Yes ☐ No
4. Are check valves installed in the cold water inlet? ☐ Yes ☐ No
5. Are check valves installed in the recirculation line? ☐ Yes ☐ No
6. Building recirculation is piped to: ☐ Inlet Side of Heater ☐ None
7. Record distance of building connections (ft) _____ & cold water feed (ft) _____ to the bank of unit(s)
8. Are motorized isolation valves installed? ☐Yes ☐No
9. 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
10. Is the remote interlock utilized? ☐ Yes ☐ No
    a. Please list all devices connected to the remote interlock: _____
11. Is the delayed interlock utilized: ☐ Yes ☐ No
    a. Please list all devices connected to the delayed interlock: _____
12. What is the design system flow rate? _____ GPM
13. What is the design plant delta T? _____ °F

Domestic Water Heating Mode

1. Does the System use a Storage Tank? ☐ Yes ☐ No
   a. What is the size of the Storage Tank? _____ Gallons
2. Storage tank position is: ☐ Vertical ☐ Horizontal
3. Position of aquastat: ☐ Upper 1/3 ☐ Middle 1/3 ☐ Lower 1/3 ☐ No aquastat
4. What is the aquastat temperature setting? _____ °F
5. If using a sensor, what is the Domestic Hot Water setpoint? _____ °F

Mode of Operation

Individual Unit Control (choose one):

☐ Remote Set Point (0 to 10V Input) ☐ Domestic Hot Water (DHW) ☐ Water Heater Management (WHM)

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) or mgl (5-75 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):

NOTES:

SMARTPLATE INDIRECT FIRED WATER HEATER INSTALLATION FORM

*Please complete **ONE (1) form for each SITE** at the 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: _____ SST Technician: _____

Street Address: _____ Company: _____

City, State, Zip: _____ Phone #: _____

AERCO Sales Rep: _____

Equipment Classification

SmartPlate Single-Wall Heaters

Unit Type:	☐ SP23	☐ SP33	☐ SP45	☐ SP69	☐ SP150
Unit Serial Number(s)					

SmartPlate Double-Wall Heaters

Unit Type:	☐ SPDW23	☐ SPDW32	☐ SPDW42	☐ SPDW61	☐ SPDW113
Unit Serial Number(s)					

Add additional units in ADDITIONAL NOTES if needed

General Installation

1. Is the condensate disposal system adequately sized and does it drain properly? ☐ Yes ☐ No
2. Is the condensate disposal system installed in accordance with the instructions in the latest version of the SmartPlate O&M? ☐ Yes ☐ No
3. Is the relief valve piped to drain or within 12” of floor? ☐ Yes ☐ No
4. Is there an electrical service switch at or near the unit? ☐ Yes ☐ No
5. Does any electrical conduit, ductwork or piping impede the serviceability of the unit or the ability to remove the sheet metal covers? ☐ Yes ☐ No
6. Is there an adequately sized condensate neutralizer kit installed? ☐ Yes ☐ No
7. Have all electrical components been verified for proper grounding? ☐ Yes ☐ No
8. Has all communication wire been properly shielded? ☐ Yes ☐ No
9. Does each unit have a strainer installed in inlet to the water heater? ☐ Yes ☐ No
10. What is the strainer mesh size? _____
11. What is the system pressure? _____ PSI
12. The system application is:

    ☐ Potable Water ☐ Process ☐ Storage tank ☐ Other _____

13. 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. Are isolation valves installed in the inlet piping? ☐ Yes ☐ No
2. Are isolation valves installed in the outlet piping? ☐ Yes ☐ No
3. Is a hose bib installed in the outlet piping? ☐ Yes ☐ No
4. Are check valves installed in the cold water inlet? ☐ Yes ☐ No
5. Are check valves installed in the recirculation line? ☐ Yes ☐ No
6. Building recirculation is piped to: ☐ Inlet Side of Heater ☐ None
7. Record distance of building connections (ft) _____ & cold water feed (ft) _____ to the bank of unit(s)
8. 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
9. What is the design system flow rate? _____ GPM
10. What is the design plant delta T? _____ °F
11. 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
12. What is the setpoint? _____
13. What is the high limit set to? _____
14. What boiler water temp is being supplied? _____
15. What is the boiler water pressure? _____
16. Is the boiler water control valve installed in 2-way or 3-way mode? ☐ 2-Way ☐ 3-Way
17. Does the SmartPlate have a dedicated boiler pump? ☐ Yes ☐ No
18. What is the flow rate of the pump? _____ GPM
19. 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: