

## MODULEX BOILER MAINTENANCE FORM

Please complete ONE (1) form for each UNIT at the site and return to AERCO within 30 days of performing the maintenance. After completion, e-mail this form to: STARTUP@AERCO.COM. Completed By: Date: Location SST Technician: Installation Name: Street Address: Company: City, State, Zip: Phone #: **UNIT SERIAL** #: **Maintenance Schedule** ☐ 12 Month Maintenance ☐ 24 Month Maintenance **Equipment Classification** ☐ MLX EXT 321 ☐ MLX EXT ☐ MLX EXT ☐ MLX ☐ MLX EXT 962 ☐ MLX EXT 1123/1100 481/450 641/600 EXT802/800 Type ☐ MLX EXT ☐ MLX EXT 1912 ☐ MLX EXT ☐ MLX EXT ☐ MLX EXT 1530/1500 2295/2300 2677/2600 3060/3000 **Combustion Calibration** 

Note: Consult Modulex O&M Manuals, GF-139 & GF-143, for proper oxygen (O2) settings.

Ambient combustion air temperature during calibration: \_\_\_\_\_\_°I

Inlet Gas Manifold Supply Pressure: \_\_\_\_\_inches W.C.

| BURNER <sup>1</sup> | OXYGEN (O <sub>2</sub> )<br>At High Fire<br>(%) | OXYGEN (O <sub>2</sub> )<br>At Low Fire<br>(%) | CARBON<br>MONOXIDE (CO)<br>(ppm) | NITROGEN<br>OXIDES –<br>NOx <sup>2</sup> | GAS VALVE OUTLET PRESSURE (in. W.C.) [MLX only] |
|---------------------|---|--|----------------------------------|--|---|
| 1                   | %   | %  | ppm                              |  | in. W.C.  |
| 2                   | %   | %  | ppm                              |  | in. W.C.  |
| 3                   | %   | %  | ppm                              |  | in. W.C.  |
| 4                   | %   | %  | ppm                              |  | in. W.C.  |
| 5                   | %   | %  | ppm                              |  | in. W.C.  |
| 6                   | %   | %  | ppm                              |  | in. W.C.  |
| 7                   | %   | %  | ppm                              |  | in. W.C.  |
| 8                   | %   | %  | ppm                              |  | in. W.C.  |

<sup>1)</sup> Depending on size, the Modulex Boiler will have from 2 burners (MLX EXT 321) to 8 burners (MLX EXT 3060) which are calibrated individually.

| 2) Only required for California and Texas installations; optional for other states.  |                                     |   |  |  |  |  |  |
|--|-------------------------------------|---|--|--|--|--|--|
| General Installation   |                                     |   |  |  |  |  |  |
| Have there been any faults or issues since the last service?     a. If so, what are they?  | ☐ Yes                               | □No   |  |  |  |  |  |
| <ul> <li>b. Have they been successfully resolved?</li> <li>2. Has the condensate disposal system been inspected since the last service?</li> <li>a. Does it drain properly?</li> <li>3. Has the condensate neutralizer been inspected?</li> <li>a. Has the limestone been replaced?</li> </ul> | ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes ☐ Yes | <ul><li>No</li><li>No</li><li>No</li><li>No</li><li>No</li><li>No</li></ul> |  |  |  |  |  |
| Gas Supply   | Gas Supply                          |   |  |  |  |  |  |
| The questions below are related to the information in the Modulex Gas Supply Application   | n Guide, GF-13                      | 36-G  |  |  |  |  |  |
| 1. Type of Gas Supply:   |                                     |   |  |  |  |  |  |
| What is the static gas supply pressure to the main manifold?   |                                     |   |  |  |  |  |  |
| What is the static gas supply pressure to the external supply regulators (if used)?  |                                     | _   |  |  |  |  |  |
| 4. Have any gas leaks been detected?   | ☐ Yes                               | ☐ No  |  |  |  |  |  |
| a. If so, have they been successfully resolved?  | ☐ Yes                               | ☐ No  |  |  |  |  |  |
| Venting  |                                     |   |  |  |  |  |  |
| The questions below are related to the information in the Modulex Venting Application  | Guide, GF-136                       | -V  |  |  |  |  |  |
| 1. Has the venting been inspected for any leaks/damage?  | ☐ Yes                               | ☐ No  |  |  |  |  |  |
| 2. Are the gaskets installed properly and providing an adequate seal?  | ☐ Yes                               | ☐ No  |  |  |  |  |  |
| Hydronic Installation  |                                     |   |  |  |  |  |  |
| What is the design system flow rate?   |                                     |   |  |  |  |  |  |
| Are strainers installed in both the primary and secondary loops?   | ☐Yes                                | □No   |  |  |  |  |  |
| a. Have they been inspected and cleaned?   | ☐ Yes                               | □ No  |  |  |  |  |  |
| 3. What is the system pressure?  | _                                   | _   |  |  |  |  |  |
| 4. What is the primary loop GPM?   |                                     |   |  |  |  |  |  |
| 5. What is the secondary loop GPM?   |                                     |   |  |  |  |  |  |
| 6. What is the system pH?  |                                     |   |  |  |  |  |  |
| a. Date of last test:  |                                     |   |  |  |  |  |  |
| 7. What is the water hardness? Units:  |                                     |   |  |  |  |  |  |
| a. Date of last test:  |                                     |   |  |  |  |  |  |
| 8. Was the Flow Switch operation checked?  |                                     |   |  |  |  |  |  |
| 9. Was the water side flushed and/or cleaned?  |                                     |   |  |  |  |  |  |
| a. What chemicals were used?   |                                     |   |  |  |  |  |  |
| b. What type of inhibitor/glycol is used?  |                                     |   |  |  |  |  |  |
|  |                                     |   |  |  |  |  |  |

|    | Fi   | reside Inspection |                         |                |
|----|--|-------------------|-------------------------|----------------|
| 1. | <ul> <li>Was a fireside inspection performed?</li> <li>a. If so, were new burner gaskets installed?</li> <li>b. Was any buildup found in the heat excha</li> <li>c. How was the heat exchanger cleaned?</li> </ul> |                   | ☐ Yes<br>☐ Yes<br>☐ Yes | □ No □ No □ No |
| 2. | c. How was the heat exchanger cleaned?  Check the components that were replaced:  a. Igniter?  b. Flame rod?  c. Burner gasket?  d. Other (please specify)  e. Other (please specify)                              |                   |                         |                |
|    |  |                   |                         |                |
|    |  |                   |                         |                |

|    |  | Summary   |                 |      |
|----|--|---|-----------------|------|
| 1. | Is the boiler plant installed in accordance with A   | ERCO 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 a        | 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 state of the stat | he 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 a        | all that apply) | )?   |
|    | AERCO Applications Engineer:   | General Contractor:                                     |                 |      |
|    | Mechanical Contractor:   | Building Owner:   |                 |      |
|    | Design Engineer:   | ☐ Plumber:  |                 |      |
|    | Controls Engineer:   | ☐ Electrician:  |                 |      |
| 3. | preventative maintenance in the future?  | nat will prevent the boiler plant from receiving proper | ☐ Yes           | ☐ No |
|    | a. If Yes, please describe the issues.   |   |                 |      |
|    | b. Who has been contacted? Please provide  | name & number for each person contacted (check a        | all that apply  | )?   |
|    | <u> </u>   | General Contractor:                                     | 11 37           | ,    |
|    | ☐ Mechanical Contractor:   | Building Owner:   |                 |      |
|    | ☐ Design Engineer:   | ☐ Plumber:  |                 |      |
|    | Controls Engineer:   | ☐ Electrician:  |                 |      |
|    |  |   |                 |      |
|    |  |   |                 |      |
|    |  |   |                 |      |
|    |  |   |                 |      |
| ΑE | RCO Application Engineering Sign Off (If Neces   | ssary):   |                 |      |
|    |  |   |                 |      |
|    |  |   |                 |      |
|    |  |   |                 |      |