# OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502
Telephone: (360)-539-7610 – Fax: (360)-491-6308
www.orcaa.org


# FORM 11

Fill out all the applicable equipment information requested below and submit the appropriate fees.

## BOILERS AND HEATERS

### General Information

| | |
|---|---|
| **Facility Name:** | **Contact Person:** |
| | **Phone Number:** |
| | **Email:** |
| **Facility Operating Schedule:**<br>_____ hrs/day, _____ days/wk, _____ wks/yr<br><br>**Indicate days when operating:**<br>☐ M ☐ T ☐ W ☐ Thu ☐ F ☐ Sat ☐Sun | **Boiler Operating Schedule:**<br>_____ hrs/day, _____ days/wk, _____ wks/yr<br><br>**Indicate days when operating:**<br>☐ M ☐ T ☐ W ☐ Thu ☐ F ☐ Sat ☐Sun |

| | |
|---|---|
| **Type of Boiler:** | |
| **Manufacturer:** | |
| **Model #:** | **Serial #:** |
| **Date of Construction:** | |
| **Date of Installation:** | |
| **Cost of Modifications:** | |

### Technical Specifications

| | | | |
|---|---|---|---|
| **Fuel Types** (list all and attach MSDS)**:** | **1.** _____<br>**2.** _____<br>**3.** _____ | | |
| **Averge Heat Rate MMBtu/hr (HHV):** | **1.** _____<br>**2.** _____<br>**3.** _____ | | |
| **Design Maximum Heat Rate MMBtu/hr (HHV):** | **1.** _____<br>**2.** _____<br>**3.** _____ | | |
| **Heat Transfer Medium:** | Temp _____°F<br>Input _____<br>Output _____ | Pressure (psi) _____<br>Input _____<br>Output _____ | Flow Rate (specify units)<br>Average _____<br>Design Maximum _____ |
| **Fire Box** | Average Temperature (°F) _____<br>Volume of Fire box ($ft^3$) _____ | | |

| | |
|---|---|
| | Design Fire Box Gas Velocity (ft/s) _____<br>Residence Time in Fire Box (sec) _____ |
| **Stack Parameters** | Stack Height (ft) _____<br>Stack diameter (ft) _____<br>Stack Gas Flowrate ($ft^3$/min) _____<br>At Average Firing Rate _____<br>At Maximum Firing Rate _____<br>Stack Temperature (°F) _____ |
| **Design Total Supplied Air (scfm):** | **Design % Excess Air (vol):** |

## Emissions Data

| | |
|---|---|
| **Check all pollution controls proposed and complete the indicated forms:** | ☐ Multiclone (complete Form 31)<br>☐ Electrostatic Precipitator (complete Form 33)<br>☐ Wet Scrubber (complete Form 32)<br>☐ NOx controls (attach description)<br>☐ Baghouse (complete Form 12)<br>☐ Other (specify) _____ |
| **Items Vented to Air Pollution Control Device (check all that apply):** | ☐ Shaker Screens<br>☐ Elevators Head<br>☐ Elevator boot<br>☐ Hot aggregate bins<br>☐ Weigh Hopper/Mixer<br>☐ Dryer charge end<br>☐ Dryer discharge end<br>☐ Other (specify) _____ |

| Pollutant | Maximum Concentrations | Maximum Emission Rates | |
|---|---|---|---|
| | | lbs/hr | tpy |
| Oxides of Nitrogen ($NO_x$) | ppmv at 3% $O_2$ _____ | | |
| Particulate Emissions | gr/dscf at 7% $O_2$ _____ | | |
| Carbon Monoxide (CO) | ppmv at 3% $O_2$ _____ | | |
| Sulfur Dioxide ($SO_2$) | ppmv at 3% $O_2$ _____ | | |
| Volatile Organics (VOCs) | ppmv at 3% $O_2$ _____ | | |

Provide the following information on separate sheets of paper:
1. Description of how fuel quality, temperature, air flowrate, excess air, and other operating variables are controlled.
2. Description of devices used to monitor air pollution controls and emissions.
3. An assembly drawing, dimensioned and to-scale, in plan, elevation and as many sections as needed to clearly show operation of the combustion unit.

## Filing Fee:

See https://www.orcaa.org/services/fee-schedules/ for an up-to-date list of fees