

April 26, 2024

Martin Madarieta  
Director of Maintenance Operations  
Evergreen Public Schools  
PO Box 8910  
Vancouver, WA 98668-8910

Subject: Notification of Boiler Installation at Evergreen Public Schools – Illahee Elementary School (SUN – 320)

Dear Martin Madarieta:

The Southwest Clean Air Agency (SWCAA) received your Small Unit Notification (SUN) on April 10, 2024, for installation and operation of a new boiler at Evergreen School District – Illahee Elementary School. For administrative and tracking purposes SWCAA has assigned tracking number SUN-320 to this notification. This notification was filed in accordance with SWCAA 400-072 and applies to the installation of one boiler. The new boiler was identified as:

Advanced Thermal Hydronics model KN-16+, natural gas fired condensing boiler with a rated heat input capacity of 1.6 MMBtu/hr. The boiler will be identified as Boiler 2.

SWCAA has completed a review of your notification and the associated support information and has determined that the notification meets the requirements of SWCAA 400-072(2). Once installed, affected equipment must maintain compliance with the requirements of SWCAA 400-072(5)(b) "**Small gas fired boilers/heaters**". A copy of the relevant SWCAA 400-072 section is attached for your information. SWCAA 400-072(5)(b)(v) requires that emissions from the unit be tested within 60 days of initial operation and annually thereafter. Because you have other boilers that require testing, SWCAA hereby approves the utilization of the currently approved testing schedule for the other boilers at Evergreen Public Schools for all subsequent testing of the new boiler. The currently approved testing schedule for the other boilers at Evergreen Public Schools requires that boiler testing be conducted by the end of March each year.

Be advised that emission units installed pursuant to SWCAA 400-072 are subject to source registration and periodic inspection. Registration fees for this equipment will be invoiced consistent with SWCAA 400-100.

If you need further assistance or have any questions regarding these matters, please contact me at (360) 574-3058 extension 131.

Sincerely,



Clinton Lamoreaux  
Chief Engineer



## SWCAA 400-072 Emission Standards for Selected Small Source Categories

[Statutory Authority: Chapter 70A.15.2040 RCW. Original adoption 09-21-056 filed 10/15/09, effective 11/15/09, 16-19-009 filed 9/8/16, effective 10/9/16; 17-11-078 filed 5/18/17, effective 6/18/17; 20-06-003 filed 2/19/20, effective 3/21/20; 21-17-054 filed 8/10/21, effective 9/10/21; 23-03-057 filed 1/11/23, effective 2/11/23]

### (5) Source categories.

#### (b) Small gas fired boilers/heaters.

- (i) **Applicability.** The provisions of this section apply to gas fired (natural gas/propane/LPG) boilers and heaters with individual rated heat inputs equal to or greater than 0.4 MMBtu/hr and equal to or less than 2.0 MMBtu/hr. For the purposes of this subsection, the term "boiler" means any combustion equipment designed to produce steam or to heat water that is not used exclusively to produce electricity for sale.
- (ii) **Emission limits and standards.**
  - (A) Visible emissions from the boiler/heater exhaust stack must not exceed zero percent opacity for more than 3 minutes in any one hour period as determined in accordance with SWCAA Method 9. (SWCAA 400, Appendix A).
  - (B) Each boiler/heater must be equipped with combustion technology capable of maintaining NO<sub>x</sub> and CO emissions at, or below, 30 ppmv and 50 ppmv, respectively (corrected to 3% O<sub>2</sub>, dry, 1-hr avg). EPA test methods from 40 CFR 60, or equivalent, must be used to determine compliance.
- (iii) **General requirements.**
  - (A) Each boiler/heater must only be fired on natural gas, propane, or LPG.
- (iv) **Recordkeeping requirements.** The information listed below must be recorded at the specified intervals and maintained in a readily accessible form for a minimum of 3 years. With the exception of data logged by a computerized data acquisition system, each required record must include the date and the name of the person making the record entry.
  - (A) Quantity of fuel consumed by the boiler/heater must be recorded for each calendar month;
  - (B) Maintenance activities for the boiler/heater must be logged for each occurrence;
  - (C) Upset conditions that cause excess emissions must be recorded for each occurrence; and
  - (D) All air quality related complaints received by the permittee and the results of any subsequent investigation or corrective action must be recorded promptly after each occurrence.
- (v) **Emission monitoring requirements.**
  - (A) Each boiler/heater must undergo emission monitoring no later than 60 calendar days after commencing initial operation. Subsequent monitoring must be conducted annually thereafter no later than the end of the month in which the original monitoring was conducted. All emission monitoring must be conducted in accordance with the requirements of SWCAA 400-106(2).
  - (B) If emission monitoring results for a boiler/heater indicate that emission concentrations may exceed 30 ppmvd NO<sub>x</sub> or 50 ppmvd CO, corrected to 3% O<sub>2</sub>, the owner or operator must either perform 60 minutes of additional monitoring to more accurately quantify CO and NO<sub>x</sub> emissions, or initiate corrective action. Corrective action must be

initiated as soon as practical but no later than 3 business days after the potential exceedance is identified. Corrective action includes burner tuning, maintenance by service personnel, limitation of unit load, or other action taken to lower emission concentrations. Corrective action must be pursued until observed emission concentrations no longer exceed 30 ppmvd NO<sub>x</sub> or 50 ppmvd CO, corrected to 3% O<sub>2</sub>.

(vi) **Reporting requirements.**

- (A) The owner or operator of an affected "emission unit" must provide written notification of initial operation to SWCAA within 10 days of occurrence.
- (B) All air quality related complaints received by the owner or operator must be reported to the Agency within 3 business days of receipt.
- (C) Emission monitoring results for each boiler/heater must be reported to the Agency within 15 calendar days of completion on forms provided by the Agency unless otherwise approved by the Agency.
- (D) The owner or operator of an affected boiler/heater must report the following information to the Agency no later than March 15<sup>th</sup> for the preceding calendar year:
  - (I) Quantity of fuel consumed; and
  - (II) Air emissions of criteria air pollutants, VOCs, and toxic air pollutants (TAPs).