Potential to Emit
NATURAL GAS FIRED SMALL BOILER
CALCULATION WORKSHEET

To be used for boilers with a heat input capacity of less than 100 million Btu/hr

Company Name:	Name of Person completing form:

Boiler Information

A. Heat Input Capacity *(must be below 100 million to use this form)*:	B. Natural Gas Usage Rate (ft^3/hr):
Btu/hr	(A) x (1 ft^3/1,020 Btu) = **ft^3/hr**

C. Control Equipment (check one):

☐ None *(Go to Table 1)*   ☐ Low NOx Burners *(Go to Table 2)*   ☐ Low NOx Burners/Flue Gas Recirculation *(Go to Table 3)*

Table 1: Potential to Emit – Boiler (Uncontrolled)

D. Potential to Emit NOx (B) x (100 lbs NOx/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons NOx/yr**
E. Potential to Emit CO: (B) x (84 lbs CO/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons CO/yr**
F. Potential to Emit PM: (B) x (7.6 lbs PM/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons PM/yr**
G. Potential to Emit SO_2: (B) x (0.6 lbs SO_2/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons SO_2/yr**
H. Potential to Emit VOC: (B) x (5.5 lbs VOC/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons VOC/yr**

Table 2: Potential to Emit - Boiler with Low Nox Burners*

D. Potential to Emit NOx (B) x (50 lbs NOx/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons NOx/yr**
E. Potential to Emit CO: (B) x (84 lbs CO/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons CO/yr**
F. Potential to Emit PM: (B) x (7.6 lbs PM/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons PM/yr**
G. Potential to Emit SO_2: (B) x (0.6 lbs SO_2/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons SO_2/yr**
H. Potential to Emit VOC: (B) x (5.5 lbs VOC/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons VOC/yr**

* To use this calculation table you must have a permit with a requirement for low NOx burners and associated monitoring/recordkeeping. If low NOx burners are not required, you must use Table 1.

Table 3: Potential to Emit - Boiler with Low Nox Burners and Flue Gas Recirculation*

D. Potential to Emit NOx (B) x (32 lbs NOx/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons NOx/yr**
E. Potential to Emit CO: (B) x (84 lbs CO/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons CO/yr**
F. Potential to Emit PM: (B) x (7.6 lbs PM/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons PM/yr**
G. Potential to Emit SO$_2$: (B) x (0.6 lbs SO$_2$/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons SO$_2$/yr**
H. Potential to Emit VOC: (B) x (5.5 lbs VOC/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons VOC/yr**

* To use this calculation table you must have a permit with a requirement for low NOx burners and associated monitoring/recordkeeping. If low NOx burners are not required, you must use Table 1.

Potential to Emit
NATURAL GAS FIRED SMALL BOILER CALCULATION WORKSHEET

To be used for boilers with a heat input capacity of less than 100 million Btu/hr

Company Name:	Name of Person completing form:
Sample Corporation	**Joseph Sample**

Boiler Information

A. Heat Input Capacity *(must be below 100 million to use this form)*:	B. Natural Gas Usage Rate (ft^3/hr):
70,000,000 Btu/hr	(A) x (1 ft^3/1,020 Btu) = **68,627.46 ft^3/hr**

C. Control Equipment (check one):

☒ None *(Go to Table 1)*	☐ Low NOx Burners *(Go to Table 2)*	☐ Low NOx Burners/Flue Gas Recirculation *(Go to Table 3)*

Table 1: Potential to Emit – Boiler (Uncontrolled)

D. Potential to Emit NOx (B) x (100 lbs NOx/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**30.06 Tons NOx/yr**
E. Potential to Emit CO: (B) x (84 lbs CO/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**24.25 Tons CO/yr**
F. Potential to Emit PM: (B) x (7.6 lbs PM/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**2.28 Tons PM/yr**
G. Potential to Emit SO_2: (B) x (0.6 lbs SO_2/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**0.18 Tons SO_2/yr**
H. Potential to Emit VOC: (B) x (5.5 lbs VOC/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**1.65 Tons VOC/yr**

Table 2: Potential to Emit - Boiler with Low Nox Burners*

D. Potential to Emit NOx (B) x (50 lbs NOx/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons NOx/yr**
E. Potential to Emit CO: (B) x (84 lbs CO/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons CO/yr**
F. Potential to Emit PM: (B) x (7.6 lbs PM/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons PM/yr**
G. Potential to Emit SO_2: (B) x (0.6 lbs SO_2/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons SO_2/yr**
H. Potential to Emit VOC: (B) x (5.5 lbs VOC/1,000,000 ft^3) x (8,760 hrs/yr) x (1 ton/2,000 lbs) =	**Tons VOC/yr**

* To use this calculation table you must have a permit with a requirement for low NOx burners and associated monitoring/recordkeeping. If low NOx burners are not required, you must use Table 1.