

Calculations 32-0238

11/20/2007

Colgate-Palmolive
060782F

Condition 2

| Boiler rating each | # of boilers | Total |
|---------------------------|-----------------|---------------------------|
| <u>MMBTU</u> <u>hr</u> | | <u>MMBTU</u> <u>hr</u> |
| 28.6 | 2 | = 57.2 |

AP42 Tables 1.4-1 & 1.4-2

Condition 3

| Pollutant | 2 Boilers | emission factor | conversion | Allowable | Max Operating | Allowable |
|-----------------|-----------|--------------------|------------|---------------------------|-------------------------|----------------------------|
| | | | | <u>MMBTU</u> <u>hr</u> | <u>lb</u> <u>scf</u> | <u>MMBTU</u> <u>scf</u> |
| TSP | 57.2 | 0.0000076 | 0.00102 | 0.4 | 8760 | 1.9 |
| SO ₂ | 57.2 | 0.0000006 | 0.00102 | 0.03 | 8760 | 0.15 |
| CO | 57.2 | 0.000084 | 0.00102 | 4.7 | 8760 | 20.6 |
| NO _x | 57.2 | 0.0001 | 0.00102 | 5.6 | 8760 | 24.6 |
| VOC | 57.2 | 0.0000055 | 0.00102 | 0.3 | 8760 | 1.4 |

Notes: If my numbers were close, I used J. Martin's #'s from construction permit. DAL Calculations based on 1000 BTU/scf.
The TSP emission factor includes filterable and condensable particulate matter.

Condition 4

TAPCR 1200-3-6-.02(2)(a)

maximum allowable particulate emissions

$$E = 0.6 (10/Q)^{0.5566}$$

where Q is MMBTU/hr
where E is lb/MMBTU
E=0.22729 lbs/MMBTU
E=0.23 lbs/MMBTU

| <u>MMBTU</u> <u>hr</u> | <u>lbs</u> <u>MMBTU</u> | = | <u>lbs</u> <u>hr</u> |
|---------------------------|----------------------------|---|-------------------------|
| 57.2 | 0.22729 | | 13.00 |
| | | | |
| <u>hr</u> <u>yr</u> | <u>lbs</u> <u>hr</u> | = | <u>lbs</u> <u>yr</u> |
| 8760 | 13.00 | | 113889 56.94 |