Site ID 90-0213

Quint-C Pallet, Co., Inc. **Permit Number** E78733

Source 02: One 1.185 MMBtu/hr Liquid Propane-Fired Wood Drying Kiln

Propane-fired Auxiliary Heater(s) Capacity - 1.185 (MMBtu/hr)

Fuel Type: **Propane** Y Sulfur Content[3]: 0.5000 %

	Pollutant							
	PM	PM_{10}[2]	$PM_{2.5}$	SO_2	NO_X	CO	VOC	HAPs
Emission Factor[1] (lbs/kgal)	0.7	0.7	0.7	0.05	13	7.5	1.0	
PTE (ton/yr)	**0.04**	**0.04**	**0.04**	**0.003**	**0.74**	**0.43**	**0.06**	**0.00**

Note:

1. Emission factors are from AP-42, Chapter 1.5, Tables 1.5 (updated 07/08).
2. Assumed PM and $PM_{2.5}$ emissions are equal to PM_{10} emissions.
3. Assumed to be 0.5% for worst case scenario.

Methodology

PTE (ton/yr) = Heat Input (MMBtu/hr) x 1 kgal/91.5 MMBtu x EF (lb/kgal) x 8760 hr/yr x 1 ton/2000 lb

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Source 03: Bleach Spraying Operation

Chemical	CAS Number	Concentration (%)	Specific Gravity	lbs/gal H2O	lbs Sodium Hypochlorite per gallon bleach	Gallons Bleach Used per year	Emissions	
Sodium hypochlorite	7681-52-9	7	1.2	8.34	0.70056	25	17.5	lbs/year
							0.00875	TPY

Specific gravity is assumed to be 1.2. Other formulations of bleach products list specific gravity at approximately 1.1.
Facilty stated worst case scenario is 25 gallons of bleach used per year.

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Source 04: One 0.995 MMBtu/hr Wood-Fired Boiler for Comfort Heating

Wood-fired Boiler Capacity: 0.995 MMBtu/hr [1]

Control Technology Used: No Controls

Wood-fired Boiler(s)

Emission Factor[2, 3] (lbs/MMBtu)	Pollutant							
	PM[4]	PM_{10}	$PM_{2.5}$	SO_2	NO_X	CO	VOC	HAPs
No Controls	0.42	0.36	0.31	0.025	0.49	0.60	0.017	0.039
PTE (ton/yr)	**1.82**	**1.57**	**1.35**	**0.11**	**2.14**	**2.61**	**0.07**	**0.17**

Footnotes:

1. Wood-fired boilers with a capacity rating of 30 MMBtu/hr or greater are subject to federal standards under NSPS, Subpart Dc.
2. Emissions of PM, PM10, and PM2.5 from boilers with a maximum capacity greater than or equal to 10 MMBtu/hr are limited to 0.10 lb/MMBtu by conditions in the permit.
3. Emission factors are from AP-42, Chapter 1.6, Tables 1.6-1, 1.6-2, and 1.6-3 (updated 9/03). Assume dry wood fired boiler.
4. PM emission factors include 0.017 lb/MMBtu/hr for condensable PM.

Methodology

PTE (ton/yr) = Boiler Maximum Capacity (MMBtu/hr) x EF (lb/MMBtu) x 8760 hr x 1 ton/2000 lb

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Source 05: Two 0.25 MMBtu/hr (Combined 0.50 MMBtu/hr) Wood-Fired Heaters/Stoves for Comfort Heating

Wood-fired Boiler Capacity: 0.5 MMBtu/hr [1]

Control Technology Used: No Controls

Wood-fired Stoves

Emission Factor[2, 3] (lbs/MMBtu)	Pollutant							
	PM^{4}	PM_{10}	$PM_{2.5}$	SO_2	NO_X	CO	VOC	HAPs
No Controls	0.42	0.36	0.31	0.025	0.49	0.60	0.017	0.039
PTE (ton/yr)	**0.91**	**0.79**	**0.68**	**0.05**	**1.07**	**1.31**	**0.04**	**0.09**

Footnotes:

1. Wood-fired boilers with a capacity rating of 30 MMBtu/hr or greater are subject to federal standards under NSPS, Subpart Dc.
2. Emissions of PM, PM10, and PM2.5 from boilers with a maximum capacity greater than or equal to 10 MMBtu/hr are limited to 0.10 lb/MMBtu by conditions in the permit.
3. Emission factors are from AP-42, Chapter 1.6, Tables 1.6-1, 1.6-2, and 1.6-3 (updated 9/03). Assume dry wood fired stove.
4. PM emission factors include 0.017 lb/MMBtu/hr for condensable PM.

Methodology

PTE (ton/yr) = Boiler Maximum Capacity (MMBtu/hr) x EF (lb/MMBtu) x 8760 hr x 1 ton/2000 lb