

**Renewable Biomass Group  
Potential Emission Calculations**

**Table C-11. Dryer Operating Parameters**

<b>Parameter<sup>1</sup></b>	<b>Value</b>	<b>Units</b>
Potential Operation	8,760	hr/yr
Annual Chip Throughput	497,000	ODT/yr

1. Annual throughput calculated based on throughput of pellets produced per year.

**Table C-12. Dryer Potential Criteria Pollutant and GHG Emissions**

<b>Pollutant</b>	<b>Wood Drying Emission Factor<sup>1</sup> (lb/ODT)</b>	<b>WESP Control Efficiency (%)</b>	<b>RTO Control Efficiency (%)</b>	<b>Potential Emissions<sup>2</sup></b>	
				<b>(lb/hr)</b>	<b>(tpy)</b>
CO <sup>3</sup>	5.30	-	50%	45.8	200.60
NO <sub>x</sub> <sup>3</sup>	2.70	-	-	52.8	231.26
Filterable PM <sup>3</sup>	2.20	90%	-	5.3	23.00
Condensable PM	1.10	90%	-	6.2	27.34
Total PM <sub>10</sub> <sup>4</sup>	3.30	90%	-	11.5	50.33
Total PM <sub>2.5</sub> <sup>4</sup>	3.30	90%	-	11.5	50.33
SO <sub>2</sub>	-	-	-	0.0	0.00
VOC <sup>3</sup>	6.00	-	95%	12.8	56.06

1. Emission factors for wood drying are the recommended uncontrolled emission factors from GA EPD for a rotary dryer, direct wood-fired processing green softwood at a Wood Pellet Manufacturing facility. Please note that the filterable PM factor is conservative as EPD guidance states that 2.2 lb/ODT is for total PM, but AP-42 Table 10.6.2-1 states that it is only filterable PM.

2. Potential emissions are calculated as follows:

$$\text{Potential Emissions (tpy)} = [\text{Wood Drying EF (lb/ODT)} * \text{Dryer Capacity (ODT/yr)}] * [100\% - \text{Control efficiency (\%)}]$$

$$\text{Potential Emissions (lb/hr)} = \text{Potential Emissions (tpy)} / \text{Annual Operation (hr/yr)} * 2,000 \text{ (lb/ton)}$$

3. Potential Emissions for these pollutants are based on Vendor Guarantees for the Dryer/RTO system.

4. Emission factors for Total PM<sub>10</sub> and Total PM<sub>2.5</sub> are the sum of the filterable and condensable components. It is conservatively assumed that filterable PM = filterable PM<sub>10</sub> = filterable PM<sub>2.5</sub>.