



State of Oregon  
Department of  
Environmental  
Quality

**EMISSION FACTORS  
WOOD PRODUCTS – PM<sub>10</sub>/PM<sub>2.5</sub> FRACTION**

**AQ-EF03**

| Type of Control                  | PM <sub>10</sub> Fraction <sup>1</sup> of Total Particulate Matter (PM) <sup>2</sup> |               |                 |             |                                |
|----------------------------------|--|---------------|-----------------|-------------|--------------------------------|
|                                  | Boilers  | Veneer Dryers | Particle Dryers | Press Vents | Cyclones and Process Equipment |
| Uncontrolled                     | 50   | 100           | 75              | 85          |                                |
| Bag filter system                |  |               |                 |             | 99.5                           |
| Cyclone – high efficiency        |  |               |                 |             | 95                             |
| Cyclone – medium efficiency      |  |               |                 |             | 85                             |
| Scrubber – Ceilcote              | 100  | 100           | 100             |             |                                |
| Wet scrubber –high efficiency    | 99   | 99            | 99              |             |                                |
| Wet scrubber – medium efficiency | 95   | 95            | 95              |             |                                |
| Wet scrubber – low pressure      | 90   | 90            | 90              |             |                                |
| ESP – both wet and dry           | 99.5   | 99.5          | 99.5            |             |                                |
| Multiclone – high pressure       | 95   |               | 95              |             |                                |
| Multiclone – low pressure        | 50   |               | 50              |             |                                |

| Type of Control                  | PM <sub>2.5</sub> Fraction <sup>3</sup> of Total Particulate Matter (PM) <sup>4</sup> |               |                 |             |                                |
|----------------------------------|---|---------------|-----------------|-------------|--------------------------------|
|                                  | Boilers   | Veneer Dryers | Particle Dryers | Press Vents | Cyclones and Process Equipment |
| Uncontrolled                     |   | 100           | 75              | 85          |                                |
| Bag filter system                | 99  |               |                 |             | 99                             |
| Cyclone – high efficiency        |   |               |                 |             | 80                             |
| Cyclone – medium efficiency      |   |               |                 |             | 50                             |
| Scrubber – Venturi               | 90  | 90            | 90              |             |                                |
| Wet scrubber – high efficiency   | 90  | 90            | 90              |             |                                |
| Wet scrubber – medium efficiency | 25  | 25            | 25              |             |                                |
| Wet scrubber – low efficiency    | 20  | 20            | 20              |             |                                |
| ESP – both wet and dry           | 95  | 95            | 95              |             |                                |
| Multiclone – high pressure       | 80  |               | 80              |             |                                |
| Multiclone – low pressure        | 50  |               | 50              |             |                                |

<sup>1</sup> PM<sub>10</sub> fraction as a percent of total particulate matter for different types of control equipment.

<sup>2</sup> These PM<sub>10</sub> fractions should be used for guidance only when better information is not available.

<sup>3</sup> PM<sub>2.5</sub> fraction as a percent of total particulate matter for different types of control equipment.

<sup>4</sup> These PM<sub>2.5</sub> fractions should be used for guidance only when better information is not available.