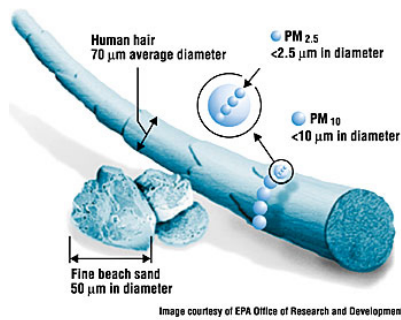


# ADAGE Emissions: Micro Particulates

**Wood does not “disappear” when it is incinerated in a biomass energy plant. It is transformed into ash, gases, and air-borne particles.**

**One of the most dangerous of these are very fine Micro Particulates, so small they cannot be filtered by the “best available technology” available today.**



**There is NO safe level of this asbestos sized, dangerous air pollutant.**

Some micro particles are one-tenth the diameter of a strand of hair. Some are so small they can only be seen with an electron microscope.

**The American Lung Association** warns, “Breathing polluted air can seriously harm your health and even shorten your life.”<sup>1</sup>

Their web site features an article entitled *Health Risks (Particle Pollution)*<sup>1</sup> which documents ties between long-term exposure to micro particulants and diseases including asthma, lung cancer and cardiovascular disease, explaining why micro particulates are so dangerous:

*The differences in size make a big difference in how they affect us. Our natural defenses help us to cough or sneeze larger particles out of our bodies. But those defenses don't keep out smaller particles, those that are smaller than ...about one-seventh the diameter of a single human hair. These particles get trapped in the lungs, while the smallest are so minute that they can pass through the lungs into the blood stream, just like the essential oxygen molecules we need to survive.*<sup>1</sup>

The proposed ADAGE biomass incinerator, which would burn over 600,000 tons of wood annually, will release tons of micro particulants into the air every year, close to homes and schools.

In April 2010 the EPA issued a new study calling for stricter standards for micro particulant emissions from biomass plants.

<sup>1</sup> <http://www.stateoftheair.org/2009/health-risks/health-risks-particle.html>

<sup>2</sup> <http://www.massmed.org/AM/Template.cfm?Section=Search8&template=/CM/HTMLDisplay.cfm&ContentID=32796>

<sup>3</sup> *The Health of Washington State, 2007, Section 8.5.3 Outdoor (Ambient) Air Quality*

<sup>4</sup> Table 7.2 of the ADAGE filing with ORCAA

*“Particulate pollution is the most important contaminant in our air.*

*... We know that when particle levels go up, people die.” —*

Joe Schwartz, Ph.D.,

**Harvard School of Public Health,**  
E Magazine, Sept/October 2002.

*“On the grounds that biomass power plants pose an unacceptable risk to the public's health by increasing air pollution, the Massachusetts Medical Society has adopted a policy opposing three currently proposed large-scale biomass power plants in Massachusetts and urging state government to adopt policies to minimize the approval and construction of new biomass plants.” --*

Press Release from  
**Massachusetts Medical Society,**  
December 9, 2009<sup>2</sup>

*“Studies indicate that air pollution from ...fine particles less than 2.5 microns in diameter (PM2.5), is associated with development and worsening of lung and cardiovascular disease. Death rates from these diseases increase as PM levels rise. Even very low levels of PM2.5, below the current federal standard, have been linked to health effects in some people.” -- Washington State Department of Health<sup>3</sup>*



**ADAGE will release 338 tons of Particulate Matter every year.**<sup>4</sup>

**[www.incineratorfreemasoncounty.org](http://www.incineratorfreemasoncounty.org)**  
*Keeping Our Communities Safe and Liveable.*