













Table 3. Ranges of contaminants in wood and biomass materials.<sup>6</sup>

Coal Contaminant	Units	Range*
Metal elements – dry basis*		
Antimony (Sb)	ppm	ND - 26
Arsenic (As)	ppm	ND - 298
Beryllium (Be)	ppm	ND - 10
Cadmium (Cd)	ppm	ND - 17
Chromium (Cr)	ppm	ND - 340
Cobalt (Co)	ppm	ND - 213
Lead (Pb)	ppm	ND - 340
Manganese (Mn)	ppm	ND - 15,800
Mercury (Hg)	ppm	ND - 1.1
Nickel (Ni)	ppm	ND - 540
Selenium (Se)	ppm	ND - 9.0
Non-metal elements - dry basis*		
Chlorine (Cl)	ppm	ND – 9,080
Flourine (F)	ppm	ND - 300
Nitrogen (N)	ppm	200 - 39,500
Sulfur (S)	ppm	ND - 8,700
Hazardous air pollutant (HAP) compounds*		
Formaldehyde	ppm	1.6 - 27
* Ranges from OAQPS database and or literatures cited in EPA contaminant concentration in traditional fuels tables for comparison available online at: <a href="http://www.epa.gov/osw/nonhaz/define/pdfs/nhsm_cont_tf.pdf">http://www.epa.gov/osw/nonhaz/define/pdfs/nhsm_cont_tf.pdf</a>		

<sup>6</sup> *Contaminant Concentrations in Traditional Fuels: Tables for Comparison, November 29, 2011* can be found at [www.epa.gov/epawaste/nonhaz/define/index.htm](http://www.epa.gov/epawaste/nonhaz/define/index.htm). Information in the tables was accessed December 2, 2013: [http://www.epa.gov/osw/nonhaz/define/pdfs/nhsm\\_cont\\_tf.pdf](http://www.epa.gov/osw/nonhaz/define/pdfs/nhsm_cont_tf.pdf)