



**Colorado Public Utilities Commission Public Comment Hearing on HB10-1365  
September 23, 2010 – Denver, Colorado**

My name is Theresa Wrangham; I live in Colorado and I am speaking on behalf of SafeMinds, a non-profit organization dedicated to investigating the connection between mercury exposure and neurological disorders like autism.

Today America faces an epidemic of sick children that threatens the livelihood of our country and the core of our future. Autism has increased to affect 1 in every 110 children today and costs our nation \$200 to \$400 billion a year.<sup>i</sup> ADHD has also reached epidemic proportions and currently affects approximately 3.5 million children. Asthma has increased 300 percent and kills 4,000 people a year. Over 65,000 children with asthma live in the Denver metro area alone. Allergies have increased 400 percent. In total, 20 million children, or almost one third of all American children, are sick.

Mercury is a well known neurotoxin that is especially damaging to the developing fetus, infants and children because their organ systems, especially the brain, are still growing and maturing.<sup>ii</sup> Coal-burning power plants are the largest human-caused source of mercury emissions to the air in the United States. In 2005, research estimated the loss of productivity associated with lower IQ directly attributed to mercury release from coal burning power plants in the U.S. to be \$1.3 billion annually.<sup>iii</sup> Recent research by the Arkansas Children's Hospital Research Institute documented that children with neurodevelopmental disorders like autism are more vulnerable to environmental pollutants like mercury.<sup>iv</sup> This finding is supported by a 2006 study from the University of Texas Health Science Center, which found that for every 1,000 lbs of environmentally released mercury, there was a 43% increase in the rate of special education services and a 61% increase in the rate of autism.<sup>v</sup>

The lesson research holds is that there is no such thing as clean coal. Colorado can no longer afford the threat to human health that pollution from aging, high-emitting coal-burning power plants in the Denver metro area represents to Colorado's children.

As the parent of two children, one with asthma and one with autism, and in representing SafeMinds, we ask you to protect our children. Please fully support HB1365 and its proactive and cost-effective strategy to transition Colorado from coal to healthier alternative energy sources.

We thank the committee for the opportunity to offer public comment.

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<sup>i</sup> **The lifetime distribution of the incremental societal costs of autism.** M.L. Ganz, *Arch Pediatr Adolesc Med.* 2007 Apr;161(4):343-9.

<sup>ii</sup> **Toxicological effects of methylmercury,** National Academy Press, 2000.

<sup>iii</sup> **Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain,** L.Trasande, P. Landrigan, and C.Schechter, *Environmental Health Perspectives* Vol 113, No 5, (2005) 590-596.

<sup>iv</sup> **Cellular and mitochondrial glutathione redox imbalance in lymphoidblastoid cells derived from children with autism,** S.J. James, S. Rose, S. Melnyk, S. Jerigan, S Blossom, O. Pavliv, D.W. Taylor, *The FASEB Journal* fj.08-128926. Published online March 23, 2009.

<sup>v</sup> **Environmental mercury release, special education rates, and autism disorder: An ecological study of Texas,** R. Palmer, S. Blanchard, Z. Stein, D. Mandell, C. Miller *Health & Place* 12 (2006) 203-209.