



## National Center for Healthy Housing

February 2, 2007

Administrator Stephen Johnson  
Environmental Protection Agency  
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Subject: Re: Docket ID No. EPA-HQ-OAR-2006-0735

Dear Administrator Johnson:

On behalf of the National Center for Healthy Housing, I urge your agency to retain and strengthen its air quality standard for lead, which was set almost 30 years ago. Lead is a potent neurotoxin that causes brain and kidney damage, miscarriages, cardiovascular disease, numerous developmental problems and many other adverse health effects. EPA's air lead standard was based on blood lead levels that are now known to cause significant health effects.<sup>1</sup> In recent decades, the Centers for Disease Control and Prevention (CDC) has lowered the action level for lead in children several times, and recently CDC<sup>2</sup> and EPA concluded that "there is essentially no threshold for adverse health effects of lead in children."<sup>3</sup>

Because of the work of EPA, our country has phased out the use of leaded gasoline and lead from motor vehicle emissions and some stationary sources have dramatically declined. This is a significant success story for your agency that has greatly improved the public's health. But we cannot as a nation, rest on our laurels. Widespread lead emission sources remain (as described below), and EPA must ensure that these sources are eliminated or controlled. Industrial sources such as metal processing plants and lead smelters are the most commonly cited sources of airborne lead, but other sources such as renovation of lead painted buildings and structures and the demolition of lead painted dwellings that threaten the public health across the nation. If the Federal government is to reach its goal to eliminate lead poisoning by 2010, EPA must monitor these sources and then take action when they foul our air and place our children at risk.

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<sup>1</sup> Lanphear et al. Low-level environmental lead exposure and children's intellectual function: An international pooled analysis. *Environ Health Perspect* 113:894-899.

<sup>2</sup> Centers for Disease Control and Prevention, "Why not change the blood lead level of concern at this time?" Available at <http://www.cdc.gov/nceh/lead/faq/changebll.htm>; accessed February 2, 2007

<sup>3</sup> US Environmental Protection Agency, *Economic Analysis for the Renovation, Repair, and Painting Program Proposed Rule*, February 2006. Chapter 5, p. 6.

*Building a healthy home environment*

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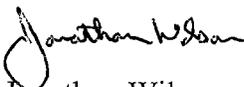
There are numerous and diverse sources of lead emissions to ambient air that jeopardize human health, some of which have still not been characterized by EPA, despite evidence that exposures from these sources are significant. For example, demolition and rehabilitation of housing coated with multiple layers of lead-based paint is widespread and has been shown to be correlated with children's blood lead levels nationwide.<sup>4</sup> The level of demolition and housing rehabilitation is significant and increasing. American Housing Survey data show that 11 million housing units with high risk of lead-based paint underwent demolition or rehabilitation from 1989 to 2000, which is nearly a tenth of the total US housing stock of approximately 100 million.<sup>4</sup>

Research sponsored by the federal government has documented the significant levels of lead in dust that can be generated by routine demolition activity.<sup>5</sup> For example, Farfel et al. determined that the geometric mean lead dust-fall during demolition of rowhomes in Baltimore was 410  $\mu\text{g}/\text{m}^2/\text{hr}$  or 2,700  $\mu\text{g}/\text{m}^2$  during a typical work day. At one set of homes the lead dust-fall levels were as high as 6,400  $\mu\text{g}/\text{m}^2/\text{hr}$ . This lead falls to the earth, polluting yards and playgrounds and settling on streets and sidewalks where it can be tracked into homes and a portion of that lead dust is re-entrained into the air.

Before EPA can consider dropping the current lead ambient air quality standard, it must recognize the current weight of evidence showing that lead particulate emissions from housing demolition are significant and enter the ambient air. Research on this topic is ongoing. For example, the U.S. Department of Housing and Urban Development recently awarded a grant to the University of Illinois-Chicago to measure both lead dust-fall and air lead particle size distributions in both ambient air and near housing demolition sites.<sup>6</sup> EPA should join this research by monitoring the ambient air to document where lead emissions are of concern and where our public health, environmental and housing officials should be taking action.

A strong, effectively enforced lead ambient air quality standard is vital to the health of our children and our communities. We may have made progress in reducing lead levels, but it is not logical to remove existing protections at this time. EPA must retain a National Ambient Air Quality Standard for lead; improve the placement of these monitors to track lead emissions from numerous and diverse sources; and apply the known science to establish a lower standard that better protects our nation's health.

Sincerely,



Jonathan Wilson  
Deputy Director

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<sup>4</sup> Jacobs DE and Nevin R. Validation of a twenty-year forecast of U.S. childhood lead poisoning: updated prospects for 2010, *Environ Res* 102(3) 352-364.

<sup>5</sup> Farfel, M.R., Orlova, O., Lees, P.S.J., Rohde, C., Ashley, P., Chisolm Jr., J.J., 2003. A study of urban housing demolitions as sources of lead in ambient dust: demolition practices and exterior dustfall. *Environ. Health Perspect.* 111, 1228-1234.

<sup>6</sup> Exterior Lead Dust in Single Family Housing Demolition: A Multi-Site Investigation. Grant to University of Illinois at Chicago, U.S Department of Housing and Urban Development. October 2006