

Statement on Behalf of the National Association of Home Builders (NAHB)

Before

The Science Advisory Board Lead Review Panel (SAB)

Concerning

U.S. Environmental Protection Agency's (EPA) Approach for Developing Lead Dust Hazard Standards for Residential Buildings

Madison Hotel, Washington D.C.

Monday, December 6, 2010

Good morning, members of the Science Advisory Board Panel, EPA representatives, and guests **my name is Matthew Watkins** and I am here this morning to share the views of the National Association of Home Builders, (NAHB) and the Window and Door Manufacturers Association (WDMA) concerning EPA's draft document entitled "Approach for Developing Lead Dust Hazard Standards for Residences" (November 5, 2010) hereafter referred to as *EPA's recommended approach*.

NAHB is the largest national trade association representing the interests of residential and light commercial construction industries. NAHB's membership includes 175,000 members nationwide representing a broad array of industries and individual firms involved in all aspects of residential and light commercial construction including,

- The National Council of the Housing Industry (NCHI) which consists of the top one hundred manufacturers and suppliers of building materials,
- the Multifamily Housing Council comprised of construction and rental property management companies, the Commercial Builders Council, and
- the NAHB Remodelers, which includes over 14,000 residential and commercial remodeling firms.

The NAHB Remodelers are particularly impacted by the EPA's Lead; Renovation, Repair and Painting (RRP) rule's training, certification and recordkeeping requirements as well as the rule's work practice and cleaning standards. The agency's latest amendment to the rule would require remodelers to take lead dust samples and meet the dust lead hazard standard.

The Window and Door Manufacturers Association, founded in 1927, is the premier trade association representing the leading manufacturers of residential and commercial window, door and skylight products for the domestic and export markets. Members sell to distributors, dealers, builders, remodelers, homeowners, architects, contractors and other specifiers in residential, commercial and institutional markets. The association is focused on key member needs in the areas of advocacy,

product performance, education and information, and facilitating business interactions and relationships in the fenestration ecosystem.

NAHB and WDMA would like to share our views on EPA's recommended approach with the distinguished members of this advisory panel as they formulate their final recommendation to EPA concerning the Agency's methodologies for revising the Lead Dust Hazard Standard from current its standard. While NAHB and WDMA are not experts on the health exposure models discussed in *EPA's Recommended Approach*, our organizations do have some questions and concerns with regard to some of the modeling assumptions and results, and the appropriateness of using the NHANES dataset. Specifically in the EPA Recommended Approach, its extrapolation of lead dust loading based to a blood lead level (BLL) significantly lower than the current Centers for Disease Control and Prevention's (CDC's) action level of 10 micrograms per deciliter ($\mu\text{g}/\text{dl}$). In particular, when considering BLL at or below $5\mu\text{g}/\text{dl}$, which according to EPA approaches background BLL in the overall U.S. population.¹ Despite NAHB's and {insert name of group} lack of expertise with regard to risk exposure models, we do recognize both the underlying environmental health research and the position of the CDC that there is no "safe" BLL for children.² Similarly, health impacts on children from lead exposure are best expressed as a continuum with no clear delineated BLL below which point there is no **potential** risk of adverse health effects. (CDC 2006) These facts influenced EPA's 2001 decision to base the Lead Dust Hazard Standard at a level of risk where any child will have a one to five percent probability of having a BLL equal to the CDC action level.³

Lead Dust, like other environmental contaminates, pose some degree of human health risk regardless of concentration to specific susceptible subpopulations (i.e., African American children and those with chronic health conditions). However, Lead Dust like other environmental pollutants (ozone, radon, asbestos) is ubiquitous in the ambient environment and is found at varying concentrations. Therefore, when EPA establishes a Dust Lead Hazard Standard, the Agency must balance several factors, some conflicting, including uncertainty of risk analysis models. EPA's statutory obligation is to establish a Lead Hazard Standard only where adverse human health effects **will occur**. Given these factors, EPA seeks to establish a Dust Lead Hazard Standard at a level meaningful to the public, such that a citizen will act rationally and eliminate a lead hazard before a child is exposed. As EPA stated in its 2001 preamble to the final 403 Lead Hazard Standard rule,

"... if EPA were to choose standards [Lead Hazard Standard] that are too low, the public could be unable to distinguish between trivial risks at the low levels of lead from the more serious risks at higher levels. This could result in clean-up for little to no health benefits, [for the larger US population] or conversely, it could result in almost no clean up because the persons would question the credibility of the "hazard" determination."⁴

¹ 66 Fed. Reg. 1214, January 5, 2001

² Canfield, R. L. et. al. *Intellectual impairment in children with blood lead concentrations below 10 $\mu\text{grams per deciliter}$* . N. ENGL. J. MED. 348: 1517-1526 (2003).

³ 63 Fed. Reg. 30341, (June 3, 1998)

⁴ 66 Fed. Reg. 1214, (January 5, 2001)

NAHB and {insert name of group} sees the need for EPA to seek balance when determining where to establish Dust Lead Hazard Standard is completely rational and mandated under the TSCA statute. Especially in light of the fact that EPA's Dust Lead Hazard Standard will play a pivotal role under EPA's Lead Renovation, Repair, and Painting rule, principally in its current amendment to the rule.⁵

EPA's Approach for Establishing BLL of Concern:

EPA's Recommended Approach chose three (3) different target blood lead levels of concern, 1, 2.5, and 5µg/dl, which, in contrast to its 2001 Dust Lead Hazard Standard, are significantly lower than the current CDC action level. Next, *EPA's Recommended Approach* constructed modeling runs using two empirical based models as well as two exposure-based biokinetic models to calculate corresponding floor and windowsill lead dust levels derived from the three BLL identified by EPA. In the questions EPA forwarded to this Panel for today's meeting, EPA states that the Agency believes the best model for this use is the NHANES Quasi-Likelihood Empirical Model. According to central tendency (CT) modeling results for the NHANES Quasi-Likelihood Empirical Model, a floor Lead Dust Loading of just 5 µg/ft² combined windowsill Lead Dust Loading ranging between 50 µg/ft² to 250 µg/ft² would result in a child BLL range of 4.1 µg/dl to 4.4µg/dl.⁶ By contrast, the IEUBK exposure model, which EPA did not choose, had significantly higher floor and window lead dust loading levels for corresponding BLL. For example, under IEUBK model a floor dust loading of 20 µg/ft² and a windowsill lead dust loading of 250 µg/ft² would result in a childhood BLL of 4.4µg/dl.⁷ EPA unfortunately questions the lead dust loadings results of the IEUBK model because EPA's model does not take into account two key factors found in CDC's NHANES dataset that influence overall BLL levels more than any other single factor: a child's race and family income.⁸

However, EPA and other researchers have pointed out significant gaps within CDC NHANES's blood level dataset for non-Hispanic (white) Caucasian children that probably results in higher national BLL being reported because of the influence of significantly higher BLL from minority subpopulations. In fact, the NHANES dataset lacks BLL for over 16% percent of Caucasian children (1yr-5yr old) whose parents were high-income homeowners, and had health insurance. The children in these households are most likely exposed to dust from renovation activities performed by NAHB and {insert name of group} members; still this subpopulation of children (aged 1yrs – 5yrs and household income ≥\$75,000) have the lowest reported BLL (1.32 µg/dl) in the NHANES dataset.⁹

Revising the Dust Lead Hazard Standard and the RRP

NAHB's and {insert group name} concern with EPA potentially revising the current Dust Lead Hazard Standard for floors and windowsills downwards is due to two decisions by EPA under the Lead Renovation, Repair, and Painting (RRP) Rule. First, EPA proposed to amend the RRP rule to require

⁵ 75 Fed. Reg. 25038, (May 6, 2010)

⁶ U.S. EPA, *Approach for Developing Lead Dust Hazard Standards for Residences*, , p. 35 (November 2010).

⁷ *Id.*, p. 36.

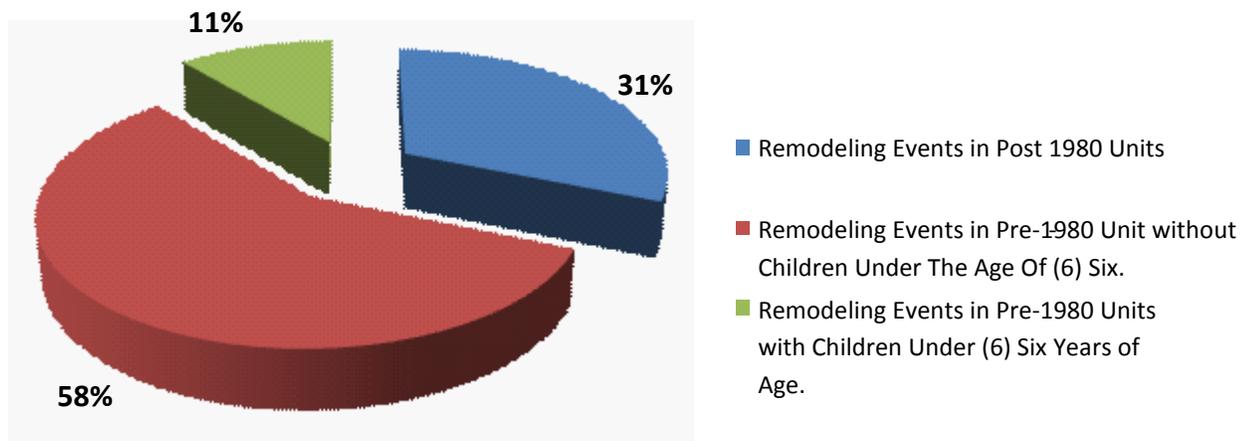
⁸ *Id.*, p. 46.

⁹ Shahed Iqbal et.al., *Estimated burden of blood lead levels X5 mg/dl in 1999–2002 and declines from 1988 to 1994*, ENVIRONMENTAL RESEARCH 107 305–311 (2008).

clearance testing for dust lead levels and achieve “clearance” below EPA’s Lead Dust Hazard Standards for floors and windowsills.¹⁰ Under EPA’s proposed clearance requirement, contractors are obliged to sample regardless of pre-existing lead dust levels which HUD’s Lead Hazard Control Program has shown can be drastically higher (i.e., pre-existing maximum floor lead dust levels of 9,407 µg/ft² and pre-existing windowsill lead dust levels of 129,188 µg/ft²) than EPA current Lead Dust Hazards Standards.¹¹

Second, in May 2010, EPA amended the RRP rule by removing the “opt out” provision which had exempted owner-occupied pre-1978 housing units where no child under the age of six (6) resided.¹² According to the EPA’s estimates taken from the 2008 final RRP rule based on data from the U.S. Census’s 2003 American Housing Survey (AHS), the original 2008 RRP Rule would impact over 1.5 million professional remodeling events annually (or approximately 11% of the U.S. residential remodeling market). In July 2010, EPA significantly expanded the scope of the original RRP rule by removing the opt-out provision resulting in all pre-1978 housing units, including those homes without children, are now subject to the RRP rule. The result of EPA removing of the opt-out provision is an additional 7.2 million professional remodeling events annually (approximately 60% of the residential remodeling market) that are now subject to the RRP rule.

Annual Professional Remodeling Events in Owner-Occupied Units



Source: U.S. Census Bureau, American Housing Survey, 2007.

EPA’s decision to make these amendments is especially questionable given this SAB Panel’s statements to EPA (on a future lead dust hazard standard for commercial and public buildings) that the current Lead

¹⁰ 75 Fed. Reg. 25038.

¹¹ Jonathan Wilson et. al., *Evaluation of HUD-funded lead hazard control treatment at 6 years post-intervention*, ENVIRONMENTAL RESEARCH 102 (2006) 237–248, (October 2005).

¹² 75 Fed. Reg. 24802, (May 6 2010).

Dust Hazard Standard has no basis to be applied to lead dust exposures for adults or children over the age of six (6).¹³ EPA extensively relied on impacts to adults in justifying these amendments, which apparently are not applicable.

Conclusion

NAHB's concerns about EPA revising the Dust Lead Hazard Standard obviously go beyond the charge of this panel. However, the consequences of your recommendation are far reaching, impacting not only the clearance requirements of the RRP rule but the struggling contractor community. That said, NAHB does have a few questions concerning the *EPA Recommended Approach*.

1. An article in last week's *Washington Post* concerning lead in drinking water begs the question of considering other exposure pathways. According to recent research, children in homes with lead in water over five parts per billion (ppb) are likely to have higher BLL than children in homes with contamination less than 5 ppb. Will other exposure pathways be considered when making a recommendation to EPA, in particular lead in water?¹⁴
2. It appears that EPA's empirical models convert dust lead loadings into dust lead concentrations as indicators of children's BLL; however, the SAB panel's Letter to the Administrator questions this technique as does the Criteria Document for the Lead National Ambient Air Quality Standard (Lead NAAQS, (2006), p, 3-29). Has EPA chosen the best exposure model considering the model uses converted lead dust concentrations?
3. The NHANES data may not be indicative of the U.S. housing stock, which may skew BLLs toward the more at risk populations. In addition, EPA chose to impute 447 windowsill observations to develop its models. Lastly, EPA's models do not attempt to create a control by segregating children's BLLs in pre- and post-1978 homes to establish a "policy relevant background" BLL. Are these questionable data gaps appropriately addressed by EPA's Quasi-Likelihood Empirical model or any other model presented by EPA?

¹³ SAB Lead Review Panel, *Letter to EPA Administrator Lisa Jackson, Summary of Key Points Discussed from Dr. Timothy Buckley, Panel Chair*, p. A-2 (August 20, 2010).

¹⁴ <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/01/AR2010120107286.html?hpid=topnews&sid=ST2010120107897>