

# Improving Kids' Environment

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Dr. Robert Daly, Chair  
Indianapolis Air Pollution Control Board  
c/o Office of Environmental Services  
2700 Belmont Avenue  
Indianapolis, IN 46221

Dear Dr. Daly:

I am planning to attend this week's Indianapolis Air Board meeting and speak in support of the proposed regulation regarding outdoor wood boilers, but wanted to send these thoughts in advance. Please feel free to share this letter with the other Air Board members.

Improving Kids' Environment, Inc. (IKE) is a nonprofit, advocacy organization based in Central Indiana that works to reduce environmental threats to children's health. One of the most compelling issues related to children's health in our city and region is childhood asthma, which leads to missed school, restricted activities and diminished quality of life for many Hoosier children. One of the key environmental triggers of asthma is air pollution. IKE applauds the City of Indianapolis' leadership in taking steps to reduce air pollution, especially fine particles.

In Indiana, millions of citizens live in areas where fine particle pollution either exceeds or is very close to the current federal health standard of  $15 \mu\text{g}/\text{m}^3$ . One of those areas is Indianapolis—in 2005, air quality was considered unhealthy for sensitive people (e.g. asthmatics) on twenty days. According to the 2004 Indiana Census, 19% of the residents of Marion County are younger than 18—more than 160,000 children. And, according to the Indiana State Department of Health, asthma among Hoosiers is significant and increasing. In 2002, 15.7% of Indiana households had at least one child who had been diagnosed with asthma and 10.4% of Hoosier children enrolled in Medicaid in 2004 had been diagnosed with asthma.<sup>1</sup> Of course, the adverse effects of air pollution are not limited to children. Thousands of adult Hoosiers have respiratory ailments that are exacerbated by air pollution, and the elderly are also especially sensitive.

The City of Indianapolis is working with a regional stakeholder group to identify and implement measures that will reduce air pollution. IKE commends the City for its successful

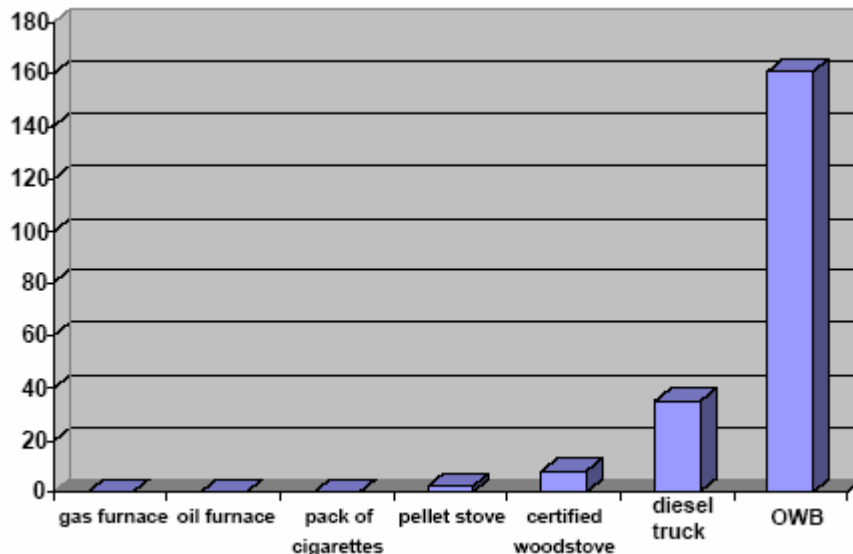
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<sup>1</sup> Indiana State Department of Health and the Indiana Joint Asthma Coalition, The Burden of Asthma updated December 30, 2004, p. 9. <http://www.in.gov/isdh/programs/asthma/pdfs/BurdenAsthmaIndiana1-24-05.pdf>.

program to retrofit school busses and municipal heavy duty diesel vehicles with pollution control devices and for its recent adoption of an Idle Reduction Policy for city employees. Adopting reasonable restrictions on outdoor wood boilers is another very positive step the City can take to protect the health of its citizens.

IKE does not object in principle to the use of wood as fuel for home heating. However, certain characteristics of outdoor wood boilers currently available to homeowners make them unsuitable to the types of urban and suburban neighborhoods we have in our city.

Outdoor wood boilers are some of the most polluting and inefficient devices available to homeowners.<sup>2</sup> Efficiency ranges from 28 – 55%, with most units operating in the 30 – 40% range. This is far lower than the efficiency of other types of wood burning devices—for example woodstoves (which are 60-80% efficient). Pollution rates are extremely high as well, with emissions of fine particles at rates as high as 72 grams/hour (compared to conventional wood stoves at 18.5 grams/hour and EPA certified stoves at 6 grams/hour). The table below, taken from the NESCAUM report, compares emissions from outdoor wood boilers (OWB) to other types of facilities.



Other characteristics of outdoor wood boilers make them particularly bad neighbors. They come equipped with very short stacks, typically 8 to 12 feet above ground. Given the proximity of the stacks to homes, smoke emitted this low to the ground will not disperse adequately and can easily reach windows and doors of nearby residences. During cold weather, dispersion is even less. The boilers are designed to operate in “smolder” mode to regulate the temperature, which means incomplete combustion and more smoke. Although the devices work best when only dry, seasoned wood is used as fuel, the fireboxes are large enough to accommodate a variety of unsuitable fuel, and wood stored outside may be burned when wet.

A variety of approaches have been used to address these facilities by jurisdictions across the country. Some cities have banned them altogether, others have set emission or opacity limits,

<sup>2</sup> The information about wood boilers is taken from “Assessment of Outdoor Wood-Fired Boilers,” Northeast States for Coordinated Air Use Management (March 2006).

operational restrictions and other conditions for operation.<sup>3</sup> IKE urges the board to adopt a regulation that will be legally defensible and provide the greatest protection to the residents of Marion County. IKE believes that the reasonable operational restrictions contained in the proposed regulation, such as the minimum stack heights to assure proper dispersion and the setback requirement, will effectively preclude the devices in many neighborhoods and will reduce the impact that the devices, if installed, will have on their neighbors. The proposal is similar to programs adopted in other municipalities.<sup>4</sup> By adopting this regulation now, before many residents of Indianapolis have invested in these devices, the Board has the opportunity to avoid the creation of a problem that could become much more difficult and expensive to address in the future.

IKE looks forward to the adoption and implementation of this program, and appreciates your consideration of these comments. Please don't hesitate to contact me if you have questions.

Very truly yours,



Janet G. McCabe  
Executive Director

cc: IKE Board  
IKE Advisory Board  
John Chavez, OES  
Felicia Robinson, OES

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<sup>3</sup> A report issued by the New York Attorney General's Office summarizes some of the state and local regulations adopted as of October 2005. Smoke Gets in Your Eyes, October 2005  
<http://www.oag.state.ny.us/press/2005/aug/August%202005.pdf>.

<sup>4</sup> E.g., Waterbury, Vermont; and Connecticut.

