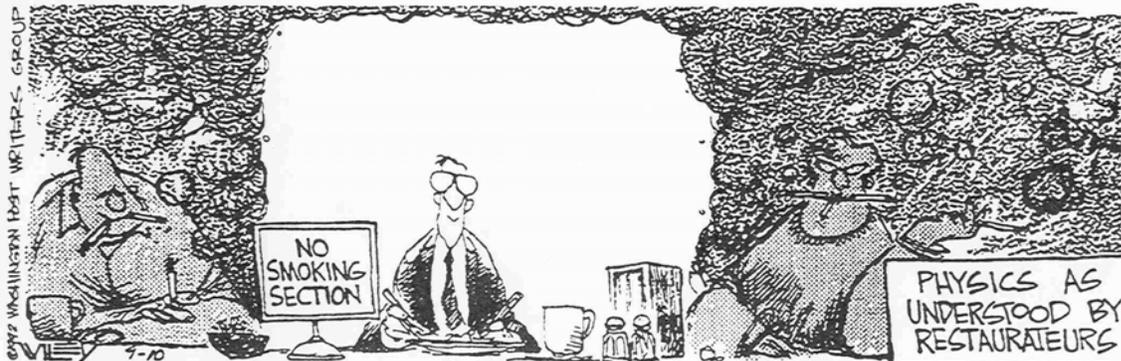


# CAMPAIGN For TOBACCO-FREE Kids®

## VENTILATION TECHNOLOGY DOES NOT PROTECT PEOPLE FROM SECONDHAND TOBACCO SMOKE

### NON SEQUITUR



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**“At present, the only means of effectively eliminating health risks associated with indoor exposure is to ban smoking activity.”<sup>1</sup>**

— American Society of Heating, Refrigerating and Air-Conditioning Engineers (June 2005)

As this quote from a June 2005 report by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the national and international standard setting body for indoor air quality, clearly states, there are no means short of prohibiting smoking in indoor environments that protect everyone from the harms associated with exposure to secondhand smoke. Unfortunately, despite this clear and unequivocal conclusion from the ventilation experts at ASHRAE (see below for more details), the political cartoon above that dates from 1992 is still very representative of the positions favored by the opponents of smokefree workplace laws, particularly in hospitality venues such as restaurants and bars. But the truth is that proponents of ventilation are pushing a “solution” that doesn’t work, doesn’t protect anyone, and is a waste of money to businesses who can ill afford to waste money.

For years, the cigarette companies have tried to push ventilation technology as an allegedly sensible, reasonable, and common sense solution to accommodate the interests and needs of both smokers and non-smokers in indoor environments, without much success. Recently, however, the cigarette companies have redoubled their efforts, claiming that there are “new and emerging technologies” that make it unnecessary to create smoke-free environments.<sup>2</sup>

But the problem with the cigarette companies' ventilation “solution” is that scientific research shows (as confirmed again by ASHRAE) that even the newest ventilation technologies under ideal conditions are incapable of removing all secondhand smoke and its toxic constituents from the air.<sup>3</sup> The scientific evidence is clear: ventilation technology does not serve as an alternative to eliminating exposure to secondhand smoke as the best strategy to protect people’s health.

While there may be the potential for reducing levels of exposure to secondhand smoke using ventilation technology, there remains no scientific evidence or consensus about whether any such lower levels might actually be safe.<sup>4</sup> And no credible scientific, medical, or engineering authority has claimed that ventilation is capable of protecting people's health from the toxins in secondhand smoke. Until such consensus develops (if ever), ventilation technology is an inadequate response to the dangers of secondhand smoke and only laws that prohibit smoking in indoor environments can guarantee safe levels of exposure to secondhand smoke.

### **What Do The Cigarette Companies Admit About Ventilation & Health?**

**Philip Morris U.S.A.** While the cigarette companies present ventilation as a "solution" to the problems of secondhand smoke and they urge restaurants to spend tens of thousands of dollars on complex new systems, on its pro-ventilation "Options" website (this site is no longer on-line), Philip Morris admitted (in the fine print) that these systems do not protect health: "*Options* . . . does not purport to address health effects attributed to environmental tobacco smoke."<sup>5</sup>

### **What Do The Experts Say About Ventilation?**

**American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), June 2005.** "ASHRAE concludes that:

- It is the consensus of the medical community and its cognizant authorities that ETS is a health risk, causing lung cancer and heart disease in adults, and exacerbation of asthma, lower respiratory illnesses, and other adverse effects on the respiratory health of children.
- At present, the only means of effectively eliminating health risk associated with indoor exposure is to ban smoking activity.
- Although complete separation and isolation of smoking rooms can control ETS exposure in non-smoking spaces in the same building, adverse health effects for the occupants of the smoking room cannot be controlled by ventilation.
- No other engineering approaches, including current and advanced dilution ventilation or air cleaning technologies, have been demonstrated or should be relied upon to control health risks from ETS exposure in spaces where smoking occurs. Some engineering measures may reduce that exposure and the corresponding risk to some degree while also addressing to some extent the comfort issues of odor and some forms of irritation.
- Because of ASHRAE's mission to act for the benefit of the public, it encourages elimination of smoking in the indoor environment as the optimal way to minimize ETS exposure."<sup>6</sup>

**Occupational Safety and Health Administration (OSHA).** "[F]rom the industrial hygiene perspective, general ventilation as delivered by heating, ventilation and air condition (HVAC) systems, is not an acceptable engineering control measure for controlling occupational exposures to [environmental tobacco smoke] ETS."<sup>7</sup>

**Repace Associates, Inc. (secondhand smoke consultants).** "[I]t is clear that dilution ventilation, air cleaning, or displacement ventilation technology even under moderate smoking conditions cannot control ETS risk to *de minimis* levels for workers or patrons in hospitality venues without massively impractical increases in ventilation . . . Smoking bans remain the only viable control measure to ensure that workers and patrons of the hospitality industry are protected from exposure to the toxic wastes from tobacco combustion."<sup>8</sup>

## **What Do The Makers of Ventilation Equipment Say About Ventilation & Health?**

**Honeywell, Inc. (leading industry manufacturer of ventilation products).** “We stand by the efficiency and quality of our air cleaners as comfort and convenience products, but we are not making claims that these are health products.”<sup>9</sup>

“Q: Will filtering eliminate all health hazards known to occur with exposure to ETS?

A: Honeywell has not in the past and does not make health hazard claims.”<sup>10</sup>

“Q: If filtering does not eliminate all health hazards, to what degrees are those hazards reduced?

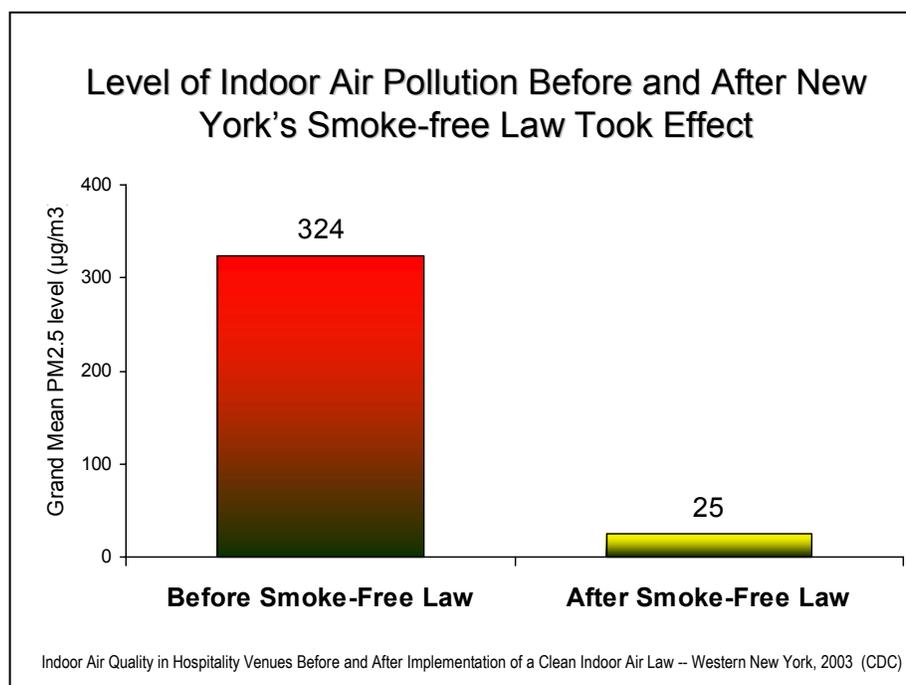
A: Honeywell has no data to support health hazard claims.”<sup>11</sup>

For an extensive listing of similar statements from major ventilation equipment manufacturers, see Americans for Nonsmokers Rights’ document, *Ventilation and Air Filtration: What Air Filtration Companies and the Tobacco Industry Are Saying* (see <http://www.no-smoke.org/document.php?id=267>).

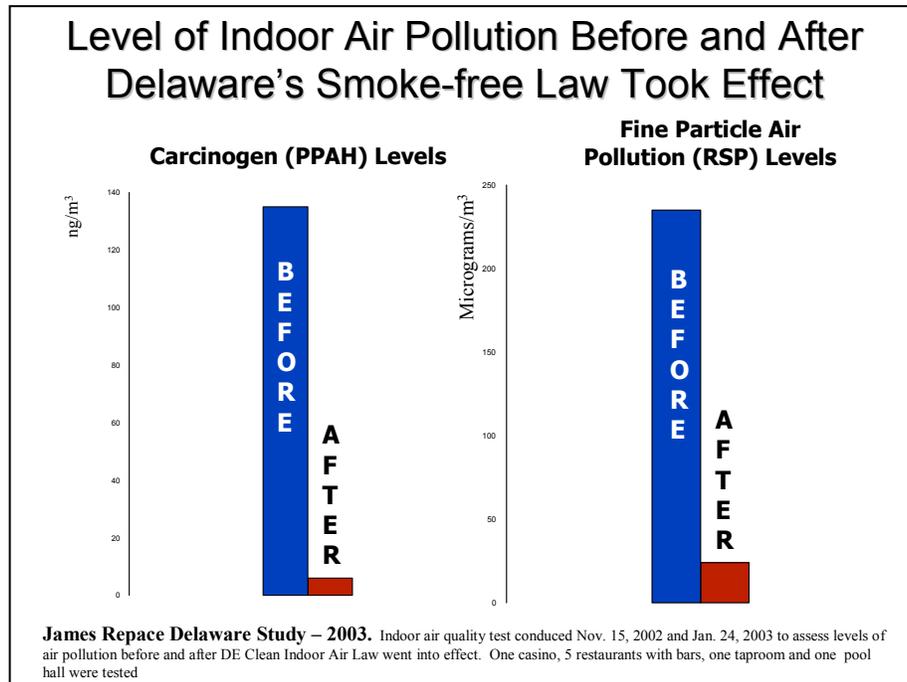
## **Smoke-Free Laws Reduce Indoor Air Pollution**

While ventilation systems are not effective in removing secondhand smoke and its toxic constituents from the air, numerous studies have found that laws prohibiting smoking in workplaces and public places can dramatically reduce exposure to secondhand smoke.

A 2004 study published in the Centers for Disease Control and Prevention’s *Morbidity and Mortality Weekly Report* found that “comprehensive clean indoor air policies can rapidly and effectively reduce SHS [secondhand smoke] exposure in hospitality venues.”<sup>12</sup> Researchers assessed the indoor air quality of 20 hospitality venues in western New York before and after the smoke-free law went into effect in July 2003. On average, the levels of respirable suspended particles (RSPs) in the venues tested fell by 84% after the comprehensive clean indoor air law took effect.



The findings from New York are consistent with those of previous studies. A study published in the *Journal of Occupational and Environmental Medicine* measured respirable particle (RSP) air pollution and particulate polycyclic aromatic hydrocarbons (PPAH) in 8 venues before and after implementation of Delaware's smoke-free law.<sup>13</sup> The study found that secondhand smoke contributed 90% to 95% of the RSP air pollution and 85% to 95% of the carcinogenic PPAH present when smoking was allowed. The study concludes that "smoke-free workplace laws eliminate [the] hazard [of tobacco smoke] and provide health protection impossible to achieve through ventilation or air cleaning."



## **Conclusion**

*States and local governments should not waste taxpayer dollars to fund new reviews of ventilation technology that will simply prove what we already know: Existing ventilation technology cannot protect people from the dangers posed by secondhand tobacco smoke. The simplest and cheapest way to protect people from secondhand smoke is to create smoke-free environments.*

*The Campaign for Tobacco-Free Kids, July 14, 2005 / Matt Barry and Nichole Veatch*

## **Related Campaign Fact Sheets**

- Health Harms from Secondhand Smoke  
<http://tobaccofreekids.org/research/factsheets/pdf/0103.pdf>
- Secondhand Smoke, EPA, and the Courts – Cigarette Company Lawsuits Cannot Change the Facts: Secondhand Smoke is Deadly  
<http://tobaccofreekids.org/research/factsheets/pdf/0038.pdf>
- Clean Indoor Air Laws Encourage Smokers To Quit And Discourage Youth From Starting  
<http://tobaccofreekids.org/research/factsheets>
- Smoke-Free Workplace Laws Reduce Smoking Rates – and the Cigarette Companies Know It  
<http://www.tobaccofreekids.org/research/factsheets/pdf/0196.pdf>
- Smoke-free Restaurant & Bar Laws Do Not Harm Business  
<http://tobaccofreekids.org/research/factsheets/pdf/0144.pdf>
- What is in Secondhand Smoke?  
<http://www.tobaccofreekids.org/research/factsheets/pdf/0253.pdf>

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- <sup>1</sup> ASHRAE's Environmental Tobacco Smoke Position Document Committee, "ASHRAE Position Document on Environmental Tobacco Smoke", June 30, 2005, see [http://www.no-smoke.org/pdf/ASHRAE\\_ETS\\_Position\\_Paper.pdf](http://www.no-smoke.org/pdf/ASHRAE_ETS_Position_Paper.pdf).
- <sup>2</sup> See Philip Morris website, "Options, Philip Morris USA" that discusses ventilation technology as a reasonable accommodation of smokers and non-smokers. <http://www.pmoptions.com/home/home.asp>.
- <sup>3</sup> American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., "ASHRAE 62-1999: Ventilation for Acceptable Indoor Air Quality", see Addendum 62e, [www.ashrae.org](http://www.ashrae.org).
- <sup>4</sup> "ASHRAE 62-1999: Ventilation for Acceptable Indoor Air Quality", Addendum 62e, [www.ashrae.org](http://www.ashrae.org).
- <sup>5</sup> See Philip Morris website, "Options, Philip Morris USA" that discusses ventilation technology as a reasonable accommodation of smokers and non-smokers. <http://www.pmoptions.com/und/und.asp>.
- <sup>6</sup> ASHRAE's Environmental Tobacco Smoke Position Document Committee, "ASHRAE Position Document on Environmental Tobacco Smoke", June 30, 2005, see [http://www.no-smoke.org/pdf/ASHRAE\\_ETS\\_Position\\_Paper.pdf](http://www.no-smoke.org/pdf/ASHRAE_ETS_Position_Paper.pdf).
- <sup>7</sup> Department of Labor, Occupational Safety and Health Administration, Federal Register notice of proposed rulemaking, "Indoor Air Quality", FR 59:15968-16039, April 5, 1994 ([www.osha-slc.gov/FedReg\\_osh\\_data/FED19940405.html](http://www.osha-slc.gov/FedReg_osh_data/FED19940405.html)).
- <sup>8</sup> Repace, James, Report for the California Department of Health Services, "Can Ventilation Control Secondhand Smoke in the Hospitality Industry? An Analysis of the Document "Proceedings of the Workshop on Ventilation Engineering Controls for Environmental Tobacco Smoke in the Hospitality Industry", sponsored by the Federal Occupational Safety and Health Administration and the American Conference of Governmental Industrial Hygienists," Repace Associates, Inc., June 2000 ([www.repace.com](http://www.repace.com)).
- <sup>9</sup> Communication from Janell Siegfried, Honeywell, Inc. to Dr. Clark dated June 12, 2000 in relation to debate over ventilation provision in the Duluth, MN City Council.
- <sup>10</sup> Communication from Janell Siegfried, Honeywell, Inc. to Dr. Clark dated June 12, 2000 in relation to debate over ventilation provision in the Duluth, MN City Council.
- <sup>11</sup> Communication from Janell Siegfried, Honeywell, Inc. to Dr. Clark dated June 12, 2000 in relation to debate over ventilation provision in the Duluth, MN City Council.
- <sup>12</sup> U.S. Centers for Disease Control & Prevention (CDC), "Indoor Air Quality in Hospitality Venues Before and After Implementation of a Clean Indoor Air Law -- Western New York, 2003," *Morbidity and Mortality Weekly Report (MMWR)* 53(44): 1038-1041, November 12, 2004, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5344a3.htm>
- <sup>13</sup> Repace, J., "Respirable particles and carcinogens in the air of Delaware hospitality venues before and after a smoking ban," *Journal of Occupational and Environmental Medicine*, 46(9): 887-905, September 2004, <http://www.joem.org/pt/re/joem/abstract.00043764-200409000-00001.htm>