

US EPA ARCHIVE DOCUMENT



## Could your family be affected?

At one hotel, a large chiller using CFC-12, a common ozone-depleting substance, serviced walk-in and under-the-counter coolers. Usually, retrofitting chillers requires changing the type of oil used. By substituting R-409a, a less ozone-depleting substance, no oil change was needed, and the life of the original equipment was extended. Also, R-409a costs less. Both of these factors led to a cost savings.

— United Nations  
OzonAction  
and Tourism  
Programmes

## Why should my lodging property reduce air pollution?

People who are exposed to toxic air pollutants at sufficient concentrations, for sufficient durations, may increase their chances of getting cancer or experiencing other serious health effects, such as reproductive problems, birth defects, and aggravated asthma.

Pollution prevention safeguards the health of your employees, customers, and families by using materials, processes, or practices that can reduce or eliminate air pollution at the source.

Pollution prevention practices also save money on waste disposal, materials usage, and the cost of air pollution controls.

You may already be regulated by federal, state, local, and Tribal agencies and may already voluntarily implement pollution prevention practices. However, increasing pollution prevention efforts can further minimize impacts on human health and the environment.

## Why should I be concerned about air pollution from my lodging property?

- Lodging properties can produce toxic air pollutants and ozone-depleting substances.
- Cleaning supplies, synthetic materials, paints, and pesticides can release toxic air pollutants and volatile organic compounds (VOC). Although emitted indoors, these air pollutants will also eventually leak into the outdoor air through doors, ventilation systems, and other

openings. Once outside, the chemicals in these substances can react in the air to form ground-level ozone (smog), which has been linked to a number of respiratory effects.

- Ozone-depleting substances such as chlorofluorocarbons may be released by improperly maintained heating, ventilation, and air conditioning (HVAC) units, refrigeration units, and fire extinguishers.

## How can I reduce the air pollution from my lodging property?

### Change Cleaners

- Choose non-toxic products such as baking soda, vinegar, and lemon oil.
- Purchase cleaners with less than 10 percent VOC by weight and those that have low toxic air pollutant content.
- Choose pump-style sprays instead of aerosols. These sprays emit fewer toxic air pollutants.
- Increase cleaning power of low toxic substances by combining, for example, baking soda and vinegar.

### Building Maintenance Practices

- Use water-based, or other less toxic, paints and coatings to maintain floors and walls.
- Reduce the amount of refinishing needed for hardwood floors by regularly inspecting floors to determine where the most wear occurs. Refinish only those portions.

*“Being environmentally responsible really does increase the bottom line and guest satisfaction at knowing they are contributing to helping our planet. Business has increased 15%+ since 1994”*

— Janet Byrd, Director of Marketing/  
Environmental Programs at the Colony Hotel,  
Kennebunkport, Maine



# OWNER/OPERATOR INFORMATION SHEET

## The Hospitality Industry (Lodging Sector)

9/12/2005

- If possible, use indoor furniture made of wood instead of pressed wood products. If that isn't possible, then use pressed wood products that contain phenol resin instead of urea resin, which is more toxic.

### Control Emissions of Toxic Air Pollutants and Ozone-Depleting Substances

- Limit idling of tour buses around HVAC intake vents and entrances to prevent high concentrations of diesel vapors.
- Use "good housekeeping" measures, such as checking for leaks in piping, to avoid loss of ozone-depleting substances during HVAC unit and refrigeration equipment maintenance and operation.
- Recover and reuse ozone-depleting substances after dismantling HVAC and refrigeration equipment for service.
- Retrofit existing HVAC and refrigeration units to avoid leakage and loss of existing ozone-depleting substances.
- Phase out chemicals that deplete the ozone by retrofitting HVAC units and refrigerant units to use chemicals with a low, or zero, ozone-depleting substance content. There are financial benefits to phasing out these chemicals that help offset the expense of retrofitting. The cost savings will result from the prevention of chemical leakages and from the improved energy efficiency offered by many of the newer, zero-ozone-depleting substances and units.
- At the end of equipment service life, replace with new and more efficient equipment that does not use ozone-depleting substances.

### Reduce Ozone-Depleting Substance Emissions from Fire Extinguishers

- At the end of its service life, replace halon-containing fire extinguishers with alternative non-halon equipment.
- Inspect halon-containing fire extinguishers

frequently for leaks. Repair or replace if leaks are discovered.

### What is a "green" lodging property?

A "green" lodging property is a property that is managed to be environmentally-friendly, by making a conscious effort to reduce pollution. Many people prefer to stay at a hotel that follows "green" principles; this may result in increased income.

Being a "green" hotel, which includes improving air quality, tells the world that the environment is important to you.

Being a "green" hotel also raises the awareness of both your staff and guests about the need to be as environmentally-friendly as possible. When your guests learn about a hotel's environmental activities, they provide positive feedback, indicating increased customer satisfaction.

### What else can I do to reduce air pollution?

Your community may already have groups working for cleaner air. Your expertise and knowledge can be very helpful to these groups.

Many pollution prevention offices offer free on-site assessments for interested businesses. A list of these small business assistance programs can be found at [www.epa.gov/smallbusiness](http://www.epa.gov/smallbusiness). This site provides information about assistance and technical help, environmental experts, environmental regulations and laws, funding, and cost-saving opportunities.

Also, sponsor employee awards for good ideas, great efforts, and dedication to pollution prevention. For example, you could provide a cash award for workers who implement a work practice that reduces both costs and pollution.

*Green Seal has initiated a certification program to help travelers, meeting planners, and government and corporate travel buyers identify environmentally responsible lodging properties.*

— Green Seal





### Could your family be affected?

One hotel converted its fire extinguisher system to an “Inergen” system, a combination of nitrogen, argon, and carbon dioxide. This mixture is cheaper than halon, and these gases do not produce ozone-depleting substances.

— United Nations  
OzonAction and  
Tourism  
Programmes

## Resources

- EPA Air Toxics Web Site: [www.epa.gov/ttn/atw/](http://www.epa.gov/ttn/atw/)
- EPA Green Meetings Web Site: [www.epa.gov/oppt/greenmeetings/](http://www.epa.gov/oppt/greenmeetings/)
- Community-Based Projects: [www.epa.gov/air/toxicair/community.html](http://www.epa.gov/air/toxicair/community.html)
- “Green Hotels” program standards: [www.vtgreenhotels.org/downloads/GHstds.pdf](http://www.vtgreenhotels.org/downloads/GHstds.pdf)
- Protecting the ozone layer: [www.uneptie.org/ozonaction/library/tech/mmcfiles/1556-e.pdf](http://www.uneptie.org/ozonaction/library/tech/mmcfiles/1556-e.pdf)
- Success stories: [www.deq.state.va.us/p2/lodging/success.html](http://www.deq.state.va.us/p2/lodging/success.html)
- Environmental Practices Handbook: [www.habitatsuites.com/environmentalpracticeshandbook.pdf](http://www.habitatsuites.com/environmentalpracticeshandbook.pdf)
- Tourism and the environment: [www.dep.state.pa.us/depuate/pollpreve/Industry/hotels/default.htm](http://www.dep.state.pa.us/depuate/pollpreve/Industry/hotels/default.htm)
- Janitorial products: [www.wrppn.org/Janitorial/jp4.cfm](http://www.wrppn.org/Janitorial/jp4.cfm)
- Indoor air quality: [www.state.tn.us/environment/dca/p2/p2air-indoor.php](http://www.state.tn.us/environment/dca/p2/p2air-indoor.php)

### Organizations

- American Hotel and Lodging Association: [www.ahla.com](http://www.ahla.com), (202) 289-3100
- “Green” Hotels Association: [www.greenhotels.com](http://www.greenhotels.com), (713) 789-8889
- Green Seal: [www.greenseal.org](http://www.greenseal.org), (202) 872-6400

*One hotel uses naturally-scented, non-toxic, phosphate-free, biodegradable products. These include:*

*Vinegar: Cleans mirrors, windows, and metal fixtures*

*Baking soda: Cleans refrigerators and stoves*

*Vinegar and salt: Cleans metal*

*Tea tree oil and lemon oil: Polishes wood.*

— Habitat Suites, Austin, TX

