

Improving Air Quality in Northwest Indiana

Your Guide to Becoming a Clean Air Business Leader

It's Easy to Make a Difference.

FIND OUT HOW AT NWICleanAir.com



NORTHWEST INDIANA

CLEAN AIR

Think Green. Breathe Easy.



Northwest Indiana – where **it all adds up to cleaner air.** Brought to you by the
Northwestern Indiana Regional Planning Commission, a Clean Air leader.

Improving Air Quality in Northwest Indiana

Your Guide to Becoming a Clean Air Business Leader

As a business owner or manager, you have an important role in improving the air quality in Northwest Indiana. Your actions set the example for your employees and show the community that you are doing your part to think green so we can all breathe easy.

To equip business leaders with the tools and resources necessary to be champions of clean air, the ***Northwestern Indiana Regional Planning Commission*** (NIRPC) has launched the NWI Clean Air initiative. This initiative is an offshoot of the Indiana Department of Environmental Management (IDEM) Clean Air Indiana Business Pledge and Business Challenge programs.

NWI Indiana Clean Air is a partnership between the people and businesses of Northwest Indiana to help all residents Think Green & Breathe Easy – understanding and inspiring actions to improve the air quality of this unique region.

The Business Toolkit

NWI Clean Air's Business Toolkit is designed to promote and assist Indiana businesses of all sizes in taking voluntary actions to improve air quality. By taking voluntary actions today to reduce emissions, your company can have a positive impact on the quality of air in your community — it's a winning move for your business, the environment, and Indiana's economy.

The toolkit includes:

- Guidance for assessing your organization's activities
- Implementing changes
- Involving employees
- Partnering in the community
- Basic information about ozone and fine particles
- Links and contact information for additional resources
- Stories about successful projects and programs

This toolkit will help your company:

- Take the Clean Air Indiana Business Pledge and join the Business Challenge
- Comply with air quality standards
- Conserve resources, improve operational efficiency and reduce operational costs
- Understand air quality health information
- Implement effective voluntary clean air projects and programs
- Involve and help your employees
- Become a Partner for Clean Air Business member



NWI Clean Air Business Toolkit

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Air Quality Health Information

The Air Quality Index

From a very young age, children can recognize and name colors. However, when it comes to the air quality in local communities, it's up to the parent to check the "color of the day" – a measurement of pollutants in the air known as the Air Quality Index (AQI), which is translated into colors associated with the air quality of each day. By using the AQI, you can better determine whether or not it's a good day to go for a bike ride, spend an afternoon in the park, or head to one of the many beaches along Lake Michigan's southern shoreline.

The Air Quality Index (AQI) tells you how clean or polluted your air is and what associated health effects might be a concern for you. The U.S. Environmental Protection Agency (EPA) calculates the AQI for five major air pollutants regulated by the Clean Air Act:

- Ground-level ozone
- Particle pollution (also known as particulate matter)
- Carbon monoxide
- Sulfur dioxide
- Nitrogen dioxide

For each of these pollutants, the EPA has established national air quality standards to protect public health. Unhealthy levels of ground-level ozone can impact the health of family members and coworkers – especially children, the elderly, and individuals with heart or lung ailments.



How Does the AQI Work?



An easy way to understand how the AQI works is like this: think of the AQI as a yardstick that runs from 0 to 500. The higher the AQI value, the greater the level of air pollution and the greater the health concern. For example, an AQI value of 50 represents good air quality with little potential to affect public health, while an AQI value over 300 represents hazardous air quality.



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To make it easy for everyone to understand, the AQI numbers are associated with colors: Each category corresponds to a different color and a different level of health concern. The six colors and what they mean are:

- **Green is “Good.”**

Air quality is considered satisfactory, and air pollution poses little or no risk.

- **Yellow is “Moderate.”**

Air quality is acceptable; however, people who are unusually sensitive to ozone may experience respiratory symptoms.

- **Orange is “Unhealthy for Sensitive Groups”**

Although the general public is not likely to be affected at this AQI range, people with lung disease, older adults, and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults, and children are at greater risk from the presence of particles in the air.

- **Red is “Unhealthy.”**

Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects.

- **Purple is “Very Unhealthy.”**

This would trigger a health alert signifying that everyone may experience more serious health effects.

- **Maroon is “Hazardous.”**

This would trigger a health warning of emergency conditions. The entire population is more likely to be affected.

About Ozone

Ground-level ozone, commonly referred to as smog, is not emitted directly into the air, but is created by chemical reactions between nitrogen oxides (NOX) and volatile organic compounds (VOC) in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOX and VOC.

Breathing ozone can trigger a variety of health problems including:

- Chest pain
- Coughing
- Throat irritation
- Congestion

It may also:

- Cause/worsen bronchitis
- Cause/worsen emphysema
- Cause/worsen asthma
- Reduce lung function
- Inflammation of the linings of the lungs
- Permanently scar lung tissue

To learn more about ozone, please visit:
in.gov/idem/files/factsheet_ozone.pdf.

Like ozone, fine particle pollution also is an important public health issue. Unlike ozone, which is more likely to occur in the summertime, fine particle pollution is just as likely to occur in colder weather and is monitored year round.

About Fine Particles

Fine particles or particulate matter (PM), more commonly referred to as soot, is a complex mixture of extremely small particles and liquid droplets. PM is made up of a number of components, including:

- Acids (such as nitrates and sulfates)
- Organic chemicals
- Metals
- Soil particles
- Dust particles

Fine particles, such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller — 28 times smaller than the width of a human hair. These particles can be directly emitted from sources such as forest fires or they can form when gases emitted from power plants, industries, and automobiles react in the air.

To learn more about fine particles, please visit
in.gov/idem/files/factsheet_particulate_matter.pdf.

Businesses Win

The NWI Clean Air initiative and Partners for Clean Air membership are aimed at involving management and employees in voluntary actions that will benefit air quality and our economy.

Management and employees benefit in a number of ways when they participate in voluntary clean air projects and programs

Management Benefits

There is a compelling case for clean air actions in business today. Investing in emission reductions generates a wide range of benefits. These benefits are both quantitative, such as savings from energy efficiency and reduced operation and maintenance, and qualitative like improved public health and employee morale. Many local governments and businesses are successfully reducing their emissions and increasing their “triple bottom line” by capturing the diversity of social, economic, and environmental costs and benefits.

Social Benefits

- Contribution to meeting program goals
- Enhanced customer trust
- Employee involvement
- Recognition in the community for positive actions
- Improved health and work environment
- Recognition as socially responsible

Economic Benefits

- Cost reductions
- Free publicity
- More favorable credit terms in market place
- Competitive advantage
- Reduced liability
- Possible reductions in permit fees
- Fewer accidents
- Less time lost for employee illness
- Meet customer requirements

Environmental Benefits

- Improved compliance
- Possible reduction in air permit level
- Reduced air emissions
- Reduced environmental footprint
- Reduced energy consumption

Employee Benefits

There is an equally compelling case for clean air actions by individuals in today’s world. Focusing on emission reduction practices throughout the day generates a wide range of benefits. These benefits can be both quantitative (savings from energy efficiency practices) and qualitative (improved health and quality of life).

Similar to local governments and businesses that are successfully reducing their emissions using a “triple bottom line” approach by capturing the diversity of social/health, economic, and environmental costs and benefits, individuals can see similar results.

Social/Health Benefits for Employees

- Working for a company that is environmentally responsible
- Builds trust between employee and employer
- Education and knowledge of air issues
- Being involved in a cause supported by their company
- Improved health and quality of life

Economic Benefits for Employees

- Reduced costs for transportation
- Company stability in the marketplace
- Reduced health care costs

Environmental Benefits for Employees

- Improved air quality in their workplace and community

Corporate Social Responsibility

Corporate social responsibility is a concept whereby businesses consider the impact of their activities on customers, suppliers, employees, shareholders, communities and other stakeholders, as well as the environment. This obligation is seen to extend beyond the statutory obligation to comply with legislation and sees organizations voluntarily taking further steps to improve the quality of life for employees and their families as well as for the local community and society at large.

The World Business Council for Sustainable Development in its publication "Making Good Business Sense" by Lord Holme and Richard Watts, used the following definition:

“Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.”

Some examples of corporate social responsibility statements are:

- **Beverage-Air:** As a leader in the commercial refrigeration industry, Beverage-Air® is firmly committed to balancing our business objectives with the responsibility to protect and preserve the environment. We pursue environmentally sound business practices and strive to create innovative, non-ozone depleting, energy-efficient products.
Source: beverage-air.com/Main.aspx?pid=264&tab=265.
- **IBM:** As a business, IBM delivers innovation that matters for our clients. As a global enterprise, we value innovation that matters for our company and the world. IBM's corporate citizenship reflects both our brand and our values by addressing some of society's most complex problems with game-changing business and technology innovation.
Source: ibm.com/ibm/responsibility.
- **Merck:** At Merck, our fundamental responsibility is discovering, developing, and delivering innovative medicines and vaccines that can make a difference in people's lives and create a healthier future. We believe that fulfilling this responsibility in a sustainable manner entails high ethical standards and a culture that values honesty, integrity, and transparency in all that we do.
Source: merck.com/corporate-responsibility.

CLEAN Community Challenge

The CLEAN Community Challenge (CLEAN) is a voluntary recognition program designed to assist Indiana cities, towns, and counties in establishing and maintaining a system for proactively managing the potential environmental impacts associated with municipal services. This system, called a Quality of Life Plan, can improve operational consistency, increase efficiency and reduce costs. A Quality of Life Plan also improves a municipality's ability to meet compliance requirements and results in improved environmental awareness, involvement, and competency throughout the community.

Finally, participants are eligible to receive financial, recognition, and regulatory benefits in return for proactively managing their environmental impacts. To learn more about CLEAN, please visit cleancommunities.IN.gov.



Commissioner and the organization. Participation continues to increase because it is a valuable networking opportunity for many facilities and there is no fee to join. Many manufacturers have indicated they find value in participating in the partners because it is a positive forum to ask questions and interact with IDEM representatives. To learn more about Partners for Pollution Prevention, please visit in.gov/idem/4129.htm.

Partners for Clean Air

Partners for Clean Air is a coalition of Northwest Indiana and Chicago area businesses, industry, and community groups committed to improving air quality through voluntary actions. Members of the Partners for Clean Air Program develop Air Quality Action Plans. These plans are designed to be implemented on Air Quality Action Days as a way of reducing ozone, PM 2.5 (particulate matter 2.5 μm and smaller), and other harmful pollutants. To learn more about Partners for Clean Air, please visit in.gov/idem/4130.htm.



Partners for Pollution Prevention

The Indiana Partners for Pollution Prevention is a group of organizations including manufacturers, not-for-profits, institutions, and government agencies invested in promoting pollution prevention efforts in Indiana. Eligibility is contingent upon taking the partners pledge. The pledge is signed by IDEM's



Action Resources



NWICleanAir.com



Clean Air Tips

These tips are offered to help businesses implement programs, projects and involve employees in the NWI Clean Air initiative.

Tips for Employers

Energy-related Options

- Replace inefficient boilers or furnaces with newer energy efficient models.
- Convert combustion processes to cleaner burning fuels.
- Install renewable energy source technology such as wind, geothermal, or solar.
- Replace incandescent lighting with compact fluorescents.
- Purchase only Energy Star office equipment.
- Set all computers to sleep mode or to turn off, as opposed to using screen savers.
- Set your thermostat 1-3 degrees lower in the winter and higher in the summer.
- Assign a team or person to ensure that all lights and computers are off at the end of a workday.
- Reward departments that quantifiably reduce energy.

Transportation-related Options

- Install bike racks for employee use.
- Develop a fee-based parking system.
- Reward carpoolers with preferred parking.
- Offer public transportation cost offsets for employees.
- Offer telework program.
- Purchase hybrid and/or super low emissions vehicles for pool cars.

Waste-related Options

- Purchase only 100% recycled paper.
- Start a composting bin in kitchen or break-room.
- Eliminate the use of plastic utensils; substitute reusable utensils and dishes in kitchen/break-room.
- Edit or proof documents on PC monitor; do not print hard-copies for this purpose
- Develop office policy that requires all editing of documents to be performed electronically.
- Duplex copies and print jobs when at all possible.



Clean Air Tips

Tips for Employees

At the Office

- Start a ride-share program with co-workers.
- Ride your bike to work. Ask your employer if you can park your bike inside or to install a bike rack.
- Pack a lunch or walk to lunch; organize group deliveries from local restaurants with co-workers.
- Turn off all equipment and lights when not in use.
- If possible, work a flexible schedule and commute during non-peak driving times.
- Use teleconferencing instead of driving to meetings.
- Properly recycle office products, including paper, ink cartridges, batteries and old electronic equipment.
- Keep your work vehicle well maintained.
- Participate in company-sponsored environmental initiatives or help create one.

On the Road

- Cut back on driving. Defer errands, carpool or use public transit; for short trips, walk or ride a bike.
- If you must drive, avoid excessive idling or jackrabbit starts.

- Limit engine idling time to less than 30 seconds. Idling for just 30 seconds uses more fuel than stopping and starting your engine.
- Keep your vehicle well maintained.
- Fill gas tank during the cool evening hours to reduce evaporation; avoid refueling your vehicle on Air Quality Action Days.
- Park and go inside at restaurants; avoid drive-thru windows and congested areas to save fuel and time.
- Delay using gas-powered recreational vehicles on hot, sunny days; small engines are a significant source of air pollution.
- Get regular engine tune-ups and keep the right amount of air in the tires. Well-maintained vehicles create less pollution.
- Take your lunch to work to reduce lunchtime trips.

Around the House

- Mow your lawn after 7 p.m.
- Avoid using boats, motorcycles and other small engine vehicles on hot, sunny days.
- Conserve energy in your home, which improves air quality by reducing energy needs from power plants; turn off appliances and lights when not in use.
- Keep household paints, solvents and pesticides in air-tight containers.

- Properly recycle paper, plastic, glass bottles, aluminum cans and cardboard.
- Reuse materials like paper bags and boxes.
- Plant deciduous trees around your house to provide shade in the summer and to allow light in the winter.
- When you barbeque, use a charcoal chimney or electric starter instead of charcoal lighter fluid.
- Use only water-based paints and solvents.
- Do not burn leaves and other yard waste

Getting the Word Out

To help inform and involve your employees, build partnerships with local community officials, and work with the media to raise public awareness and promote your efforts, NWI Clean Air/IDEM has prepared the following template news release, letter to employees and letter to community officials for your use.

- Template press release
- Template letter to employees
- Template letter to local mayor from a business requesting community participation during the campaign timeframe

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