

Environmental Management Systems



EPA Region 3, Philadelphia, PA 19103
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Reducing your environmental footprint with an Environmental Management System (EMS)

An Environmental Management System or EMS is a systematic approach to achieving environmental and organizational goals. Each day, businesses, factories, and institutions make an impact on the environment through their activities, products and services. This impact or environmental "footprint" can be greatly reduced by developing and implementing an EMS. Having an EMS in place helps entities: 1) comply with environmental laws and regulations; 2) manage voluntary efforts aimed at preventing pollution; 3) stimulate continuous improvement in energy and water conservation; and 4) encourage increased recycling and waste reduction.

Environmental Management Systems use a Plan - Do - Check - Act model.

PLAN: Identify environmental aspects and impacts, establish goals.
DO: Implement, conduct training, use operating procedures.
CHECK: Monitor, audit, develop corrective and preventative actions.
ACT: Determine progress toward goals, review with management, make needed changes.

Executive Order 13148 states that federal facilities should have an EMS by December 2005. EPA's Mid-Atlantic regional office began developing its EMS in 2002 for its Philadelphia location at 1650 Arch Street.

The EMS Policy for our office is to manage our organization and programs in a manner that protects the environment, the safety of our employees and public health.

Visit our website at: www.epa.gov/region3/facility/ems

The website makes our EMS available for the information and use of our staff and the public. We hope it also provides an example for others to assist them in developing their own EMS.

The top 8 EMS concerns for the operation of the EPA facility in Philadelphia:

1. Gasoline for driving
2. Air emissions from driving
3. Paper for printing and copying
4. Electricity for computers
5. Electricity for copying
6. Waste disposal from computers
7. Office Supplies
8. Waste Generation

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Region 3 Employees Managing for Sustainability



2004 Facility Data

- ✚ We used approximately 7 M kWh of electricity for our office.
- ✚ We used approximately 7 M gallons of water.
- ✚ We used 7.6 M sheets of 100% recycled paper.
- ✚ Our building recycled 150 tons of material or 46% of our waste.



Help Us Reduce Our Environmental Footprint!

*Photo Credits:
p.1 (power plant) - U.S. Fish &
Wildlife Service. All others EPA*

 100% recycled paper

100% post-consumer fiber
Process chlorine free
Using vegetable-based ink

Our EMS goals through September 2008:

- ✚ Reduce gasoline use in our vehicles by 1%.
- ✚ Increase our fleet miles per gallon (MPG) by 1%.
- ✚ Use recycled oil in 50% of our vehicles.
- ✚ Reduce the electricity used by our computers by 65%.
- ✚ Reduce paper use in printing and copying by 40%.
- ✚ Increase the recycling rate in our building to 60%.
- ✚ Recycle 100% of our electronic and lighting waste.

What we've already accomplished:

- ✚ Cut the annual electricity use by our computers almost in half, saving 135,000 kWh/year by installing monitor sleep mode. This is same amount of electricity used by eight four - bedroom homes each year. This will reduce CO₂ emissions by 80 tons per year, equal to taking 14 cars off the road or planting 22 acres of trees.
- ✚ Reduced paper use by almost 30%, saving more than \$17,000/year.
- ✚ Purchased 4 new hybrid gasoline/electric cars that are routinely getting double the MPG of the cars that they replaced. This is reducing CO₂ emissions by over 10 tons per year and would be like planting 3 acres of trees.

Certifications:

- ✚ In February 2004, the EPA Mid-Atlantic office was certified in conformance with Executive Order 13148.
- ✚ In January 2005, we became the first EPA regional office to be certified in conformance with the international consensus standard on EMS (ISO 14001).

All the staff in our office has a role in the success of our EMS by the way they perform their day-to-day activities. Our management has committed to providing the tools and training necessary to achieve our EMS goals. But individual decisions, like turning off lights and computers when they are not being used, avoiding unnecessary printing and copying and using public transportation to commute to work and for business travel, are small but important actions that are magnified by the approximately 1200 EPA employees, Senior Environmental Employees, contractors, students and interns working in our office space.

At EPA, we can make a difference not only in what we do every day, but also in how we do it.