

AIR QUALITY OPTIONS

LEARN THE BASICS

If you want to do your own testing, you need to know how testing works. Even if someone else does the testing, understanding testing helps you to be an effective “watchdog”. Start by reading [Air Quality Guide: Know What You’re Breathing](#) for an overview of air testing. In addition to covering the process, this guide describes how community members can be involved.

What comes out of a smokestack depends on what is being burned or vaporized inside. Find out what kinds of things go in to the plant, and what happens to them there. Heavy metals like lead and mercury don’t change when they burn or evaporate, but are dangerous on their own. Coal and wood don’t become more poisonous when burned, but they turn into particulate matter and ash that can cause breathing problems. Plastics in waste – especially medical waste – change into different chemicals when burned, and become extremely toxic.

Visit the [Industry Profiles](#) section of the SfA Public Data page to learn about the kinds of emissions associated with the business or industry. The [ATDSR’s ToxFAQs](#) have information about health risks associated with each contaminant. SfA partner organizations also provide some background information on different air-polluting industries. See partner organizations for more:

[Blue Ridge Environmental Defense League](#), particularly resources on asphalt plants, and biomass and medical waste incineration

[Pesticide Watch](#)

For stories of communities who have faced similar problems, see the Spring 2011 issue of the educational magazine [The Change Agent](#). Read:

[Can't Stop Breathing](#) pp. 32-34

[Intensive Care, Intensive Hazards](#) pp. 48-49.

GATHER DATA

You may find data about emissions from a specific business on our Public Data page, under Info about Specific Polluted Sites Near You. If you want to do your own air quality testing, contact the organization Global Community Monitoring through our Advocacy and Technical Assistance page. Public health schools at local universities may also be a resource.

UNDERSTAND WHAT THE DATA SAYS

Once you have data about emissions and air quality:

Look at the data with [A First Look at Technical Documents](#) to see what you can figure out on your own, and what questions remain. Pay particular attention to contaminants that are unique to the suspected polluter – chemicals that couldn't have come from anywhere else.

Then familiarize yourself with any [Common Units](#) being used, especially micrograms, cubic meters, and parts per million. Learn more about the

[Limits and Levels](#) that may appear on air quality reports, particularly detection limits, NAAQS, RfCs, and (for the workplace) OSHA PELs. See whether air quality standards are being exceeded, and by how much, using [Compare to Standards](#). Then map the comparisons with [Mapping Data](#).

ANALYZE THE DATA AND EXPLORE STRATEGIES

If claims are being made about the data, and you think they are untrustworthy:

Take [A First Look at Challenging Claims](#) to see whether or not the data supports those claims. [Finding Newsworthy Data](#) helps focus on the data of greatest concern.

Some air-polluting industries only operate a few months per year (like asphalt plants) or even a few minutes per day (like pesticide spraying). But their regulations may be based on yearly, monthly, or daily averages. A monthly or daily rate might be better to regulate than an annual rate. Use [Inside Averages](#) to think creatively about what might be behind an average. Watch the short video [Averages Can Be Political](#). If you suspect the air samples taken were inadequate, use [Sampling Plans](#) to critique a plan, or to suggest a new one.

ASSESS RISK

If you are concerned about the health effects of breathing the air pollution, [Pieces of the Risk Puzzle](#) reviews all the factors that contribute to risk.

If you believe there are already health problems in the community, and you want know if they're related to the pollution, see [Health Study Options](#).

MAKE YOUR CASE

When you have the key facts you want to communicate to decision-makers or to the community, [Communicating with Numbers](#) helps you make your case effectively in words, images, and fact sheets.