

# 4 POLLUTION: WHERE IS IT FROM?

It's foolish to say that any one thing is "the major problem" as far as pollution is concerned. Ecology is a matter of *balance*. Anything which upsets that delicate balance threatens us all. The problem is really the tremendous number of things which are upsetting the balance of life.

The rivers and lakes we drink from are also used as vast, open sewers. And all the chemicals and pesticides and detergents and oil dumped in them wind up in the ocean, which gets filthier every year.

Over 450,000,000 tons of garbage accumulate in America every year, filling useful land and costing immense amounts of money. Much of the trash—bottles, cans, plastic containers—is almost impossible to get rid of.

Even radioactivity is a problem, as in Denver, where they recently discovered that a nearby atomic bomb factory was releasing radioactive plutonium into the air, water and soil. For those without community A-bomb plants, substitute the color TV set, which apparently broadcasts a lot more than living color (latest safety breakthrough in this area: keep six feet away!).

Obviously, then, there's a lot more to this than dirty air. But what about air pollution itself? We can learn a lot about the other forms of pollution by understanding what makes our air so bad. What's true for one is true for all.

Air pollution has many causes. Most officials and reporters play up the role of automobiles because they contribute heavily to air pollution in terms of sheer tonnage of pollutants released. Even here, though, estimates vary widely, from less than 25% to over 50% of the total. More important are the amounts of really toxic chemicals that escape into the atmosphere.

Alcohol and arsenic are both poisons, but it takes a lot more booze than arsenic to do you in. The same principle holds true for the air we breathe.

Over 80% of auto exhaust, aside from carbon dioxide and water vapor, is carbon monoxide, an odorless, colorless, tasteless gas. It's bad stuff, but the human body happens to have a good deal of tolerance for it. Carbon monoxide is more or less the booze of air pollution: over a long time, it might do harm.

The other four major components of polluted air are much more in the arsenic tradition: a little bit goes a long way. Both cars and industry produce them. These highly poisonous substances include:

- particulates* (microscopic bits of matter suspended in the air)
- organics* (hydrocarbon compound gases from incomplete combustion)
- nitrogen oxides* (also gases from burning)
- sulfur oxides* (gases from the burning of fossil fuels—coal and oil)

These are the pollutants you frequently see or smell, and it takes *very little* of them to damage your body.

In addition, nitrogen oxide and organic pollutants combine chemically in sunlight to produce photochemical smog. This is the brownish haze that blots out the afternoon view on sunny days in most American cities. It's also the stuff that makes your eyes sting and tear, and starts you coughing.

Now, the point of all this is that industries produce at least 50% of these really dangerous

pollutants. Don't be misled by quantity (how much); in many ways it's the quality (how dangerous) of air pollution that counts.

Furthermore, in major industrial areas the amount and variety of dangerous filth industries put in the air is even greater and more dangerous. Arsenic itself makes a fine example: in 1969, two students who had grown up in Gary, Indiana, went off to college in Michigan and within a short time got very sick. Doctors found that they had actually become addicted to the arsenic belched into the "air" of Gary by the enormous steel mills and were suffering withdrawal symptoms!

An even better example is San Jose, California, one of the major industrial areas on the West Coast. San Jose has one-tenth the population—and one-tenth the cars—of Los Angeles, but in many ways its air is *more dangerous*. San Jose has the third highest concentration of cancer-causing pollutants in its smog, according to the U.S. Public Health Service. Only Gary and Pittsburgh are worse.

San Jose may not have millions of people or cars, but it does have companies like Owens-Corning Fiberglass. One of their factories, just outside the city, got so bad that the local citizens hired their own investigators after the smog control authorities kept pooh-poohing the threat. Soon enough, they learned that the one plant, operating 24 hours a day, spews a more deadly exhaust than a million new cars! Eight tons of filth-saturated exhaust *every minute*. The plume from the smokestack, photographs revealed, drifts fifty miles and blankets all of San Jose, covering an area of 126 square miles.

If industry stands equal to the automobile as an air polluter, why do cars take the brunt of the blame?

The answer is money. *Big Business doesn't want the clean-up bill.*

As long as people think cars are the culprit, they can be fooled into thinking that cutting



**"NAME YOUR POISON"**

down auto exhaust will really make the air fit to breathe.

And this leads to something even more important: people can be persuaded to accept the idea that air pollution is *their own fault*.

Belching smokestacks aren't our fault. What about exhaust pipes?

Do you feel guilty when you drive your car? Do you believe that anyone who owns a car is a pollution criminal?

Let's follow it through. Let's admit that cars are a major air polluter; after all, it's true. And

admit that we're the ones who buy and drive the things. Does that make us responsible?

Consider the following:

**Fact:** The auto industry has always led efforts to block mass transit programs and push highway systems through the cities. 50% of the space in American cities is consumed by cars and their needs.

**Fact:** General Motors products net the company over \$1.7 billion in clear profit every year, but they also account for 35% of the air pollution tonnage in the U.S. Yet GM spends less than \$40 million a year (equivalent to 2% of its profits) on cleaner engine research, as compared to \$600 million for style changes and \$300 million for advertising (together, equivalent to over 50% of its profits). Moreover, auto companies buy up and suppress patents and designs that could lead to cleaner transportation (such as the Lear steam car, bought by GM last year and quietly shelved).

**Fact:** The American auto industry designs its cars to last about three years. As a result over 12 million cars are junked every year, creating a tremendous disposal and dumping problem, the cost of which is borne by you and me.

Add to this the fact that our towns and cities are all spread out. We live in one place, and work miles away, and have to shop for food in a third location, and buy our clothes in a fourth. We didn't design it that way. And the mass transit system (if, indeed, there is one in our community) is invariably slow, inconvenient (lots of transfers), dirty—and, lately, expensive.

To top it off, they have the nerve to tell us that auto pollution is our fault because we drive cars—so let us pay for it.

As if we hadn't been paying all along. The freeways and superhighways pushed through by the auto, oil and construction industries were paid for by us. These were all highly subsidized operations. Take a look at the gas pump, and you'll see right there just how much you're paying. By law, gasoline tax money can only go to build new highways and repair old ones. It can't go for smogless, free public transportation, despite the fact that studies have shown that such a system would be *cheaper* for everyone—given the hidden costs of air pollution, the valuable space consumed by cars, and the junk problem. That tax money can't even go for anti-pollution research (although some congressmen want to

change that, as long as the research isn't intended to phase out cars).

So what choice do we have? The auto pollutes, yes. Not the driver, but the machine. Which means that the corporations who built those machines, used the profits they got from us to make sure we'd have no other way of getting around, spent all that money to sell us more and poorer quality cars—they pollute.

It doesn't end here. Because pointing the finger at the cause of pollution raises the question of who is able to stop it.