Since World War II the synthetic organic chemicals industry has grown at a steady 6.5% per year, doubling its total output every 11 years.

During the past 35 years, since 1950, the industry has grown by a factor of 10, from an annual output of 50 billion pounds to an annual output of 500 billion pounds. During that same period, the industry has been responsible for the creation of some 20,000 Superfund sites that we know of, and countless other dumps that have not yet come to light as problems. (Some officials within EPA guess that there may actually be as many as 200,000 places in America where toxics have been buried.) Although Congress has allocated upwards of $10 billion for cleanup of old dumps, no one pretends that this is sufficient to do the job. It may clean up the first 1000 sites, though even this is doubtful. Before it is over, cleanup will cost hundreds of billions of dollars if, indeed, it can be done at all. Furthermore, we are still creating new Superfund sites each year. These are pits, ponds, lagoons and landfills allowed under the Resource Conservation and Recovery Act (RCRA) subtitles C and D (which legalize chemical landfills and municipal solid waste landfills).

In an attempt to control the problem during the past 25 years, we have passed 10 major pollution laws and have published 8,000 pages of regulations in the Federal Register. We are currently spending about $10 million annually for each page of regulations (total: $80 billion per year spent on end-of-pipe pollution control).

Unfortunately, it will be obvious to anyone who thinks about it that we are losing the battle. The earth's protective ozone layer is disappearing, the planet is heating up, the world's oceans are turning into sewers, acid rain is killing lakes and forests, the nation's groundwater is becoming unsafe to drink, half the planet's living species will become extinct in the next 50 years. This is only a partial list. The catalog of horrors is growing year by year. Only a few captains of industry and their indentured savants will argue that our present course makes any sense.

To the technical experts who are wrapped up in maintaining their credibility and impressing their peers with their analytic detachment, the situation seems paralyzingly complex. But to the general public, the situation has become rather clear: with the chemical industry doubling in size every 11 years, we are saturating the air, water and soil with toxic contaminants, and each year the situation grows worse. An old adage recommends, "Don't shit where you eat." but that's exactly what we've been doing. If asked, most people would agree, it is time for new departures.

There are at least three new approaches that we can try. One is to ban certain toxic materials entirely. A second is to ban the mining of certain materials (for example, lead and cadmium), thus requiring recycle of existing stocks because new stocks will no longer be legally available. A third is to tax toxics.

Today we'll examine taxes on toxics. In the past when this approach has been suggested, it has been attacked as a "license to pollute." However, in the past the toxics tax has been suggested as an alternative to the current regulatory system. We, on the other hand, are not suggesting that the nation abandon any of its existing pollution control programs. We merely suggest toxics taxes in addition to all existing pollution control programs.

We favor two taxes: one on the discharge of toxics into the environment, and another on the use of toxics in products that will, themselves, eventually be discarded into the environment. Let's look at the two taxes separately.

The toxics discharge tax is fairly simple. A tax rate is set on each pound of toxics discharged into the environment. A pound of cyanide might be $1.00; a pound of sulfur might be 30 cents. The dischargers would have responsibility for measuring their own discharges, filing tax returns, computing the tax, and mailing a check. There would be heavy penalties, including stiff jail terms, for cheating.

The discharge tax would apply to anyone discharging toxics into the environment, not just chemical firms. Anyone, including manufacturers, users, government agencies and waste haulers, would pay for the privilege of degrading the earth's air, water or soil if they chose to discharge toxic materials in any form.

This plan has the advantage of causing the Internal Revenue Service--the pit bulls of government--to care about the quantities of toxics entering the environment. Clearly the EPA does not really care. The more the EPA knows about toxic discharges, the bigger and more difficult its job becomes; so for 15 years the EPA has consistently underestimated the size of the toxics problem, and other agencies (the Office of Management and Budget and the Congressional Office of Technology Assessment) have repeatedly had to embarrass the EPA into revising its numbers upward. The EPA is not enthusiastic about measuring contaminants because the numbers reveal the agency's continuing failure to stem the tide of toxics. Getting the IRS into the act would rather quickly provide us with more reliable facts on the amounts of toxics being used by industry because the IRS would collect a tax for each pound measured. The IRS enjoys collecting taxes.

The discharge tax has other advantages as well. It gives industry a continuing incentive to reduce its use of toxics. When today's regulations have been met, industry can relax. But with a tax on toxics, industry would be reminded every April 15 that they are throwing away profits by discharging toxics. This is a message industry will hear and will respond to.

The third advantage of the toxics tax is that it provides revenue. The government could use this money (a) to enforce the toxics tax, doing spot checks on industry to catch cheaters; and (b) to do the necessary research to establish a rational basis for the second tax--the tax on commercial products which contain toxics that will harm the environment when the products are discarded. (Even with maximum recycling, all items will eventually be discarded, so we should tax items that will eventually degrade the environment, creating an incentive for those products to disappear from our markets.) Research will be needed to decide what chemical compounds in what commercial products are worthy of a tax. The program can begin with the obvious ones: plastics can be taxed. Any item that contains lead, cadmium, arsenic or mercury can be taxed. As time passes and our understanding improves, new products can be taxed.

Such taxes should be instituted at the federal level, but they could also be imposed by states, or even by counties and municipalities having taxing authority.

Both taxes can be adjusted up or down as we see results. We note that industry does not favor this approach. They know it would work; it would force new ways of doing business and even new ways of thinking. We've got little to lose by giving it a try. It couldn't be less effective than what we've got now.

The discharge tax has been discussed in several books; one of the best is Allen Kneese and Charles Schultz, POLLUTION, PRICES AND PUBLIC POLICY (Washington, DC: Brookings Institution, 1975).

--Peter Montague

Descriptor terms: taxation; regulation; discharge tax; pollution tax; chemical industry statistics; growth; global environmental problems; irs; epa; superfund;