

IN OUR OPINION

***The smoke is beginning to clear:
Our capacity to lick air pollution
makes for optimism about our social tools***

It's another hazy day in New York as I write this; smoke is drifting out of the four smokestacks I can see from my window. It would be easy to be depressed about this further evidence of the unpleasant side of urban living. Yet I'm filled with optimism about our ability to solve this problem—to clean the air in our cities and around our factories. And from that optimism springs a conviction that the technical and social approaches we're developing to solve this problem can, in other forms, solve other problems of a complex, urbanized society.

My bright view on a hazy day comes from reading Seymour Tilson's piece about air pollution, which starts on the next page, and from surveying some of the legislative activity in this field, particularly the Clean Air Act of 1963. Tilson's article demonstrates that the technical problems, while complex, are entirely soluble. Sure, there is much we don't understand about the photochemistry of smog formation or about the weather patterns that cause New Yorkers to inhale some of Philadelphia's exhalation. But technology already exists to stop most pollution at the source, and the remaining more refractory sources—automobile exhausts are one—should yield to the research and development efforts that are being mounted in response to the new concern about the quality of our urban air.

So we possess the technical instrumentalities for cleaning our air; do we have the social instrumentalities for ensuring that we will employ them? Certainly it takes more than self-interest. Air-cleaning equipment is usually just an added cost and can return its investment only in those rare cases where the reclaimed material has value in the marketplace. One needs then new ways to encourage the installation of air-cleaning equipment and to penalize those who pollute the air.

Here again I'm optimistic, for we seem to be finding and refining such mechanisms. For example, the Clean Air Act provides for federal grants to match local expenditures for controlling air pollution. This seems an excellent way to strengthen local efforts without involving the federal government unduly. However, because pollution is a regional concern, the federal contribution is scaled up when two or more municipalities or states join in a regional pollution-abatement campaign—a nice bit of social innovation.

Also in the wind is a mechanism to encourage private efforts at air cleaning by providing faster write-off for capital investment in air-cleaning equipment. That sort of tax relief is a proven mechanism for encouraging socially useful investment; it's worked for capital investment generally and it will, I'm sure, go a long way to make companies invest in air cleaning.

Of course, the companies are not completely unwilling, and that is another, more subtle social mechanism. In the last few decades there has been a growing appreciation, particularly on the part of larger companies, of corporate social responsibilities. If for no other reason than to avoid public pressure and governmental interference, company after company has done on its own what the public would have them do.

Finally there is research and development as a social mechanism. Yes, a social mechanism, for that is what it is.

First of all, by accelerating the rate of innovation, we in the technical community speed the rate at which new plant is built, the rate at which smokeless nuclear power plants supplant the fossil-fueled sort, for example. Indirectly, research means a wealthier society, a society that can more readily afford the luxury of not treating the air as a sewer.

Secondly, the engineer's approach to problems like air pollution causes at least some of the issues to be reduced to quantitative terms. We can be rational about the relative contributions of auto exhausts and factory smoke stacks to the pollution in any area when we can put numbers on those contributions. This rationality has the effect of putting a vector on all the other social mechanisms I discussed; it becomes possible to describe the problem in terms of the sources of pollution, the limits to atmospheric dilution, the limitations in measurement, etc. In place of an emotional inveighing against all but the purest air, one has a basis for putting private and public concerns onto a scale. A rough scale, for there is still much we don't understand about pollution, but a scale nonetheless.

You have to be a natural-born optimist to believe that these new and sometimes fragile mechanisms will alter the self-interested patterns that have built up across the centuries. But I am an optimist, and, . . . look, the sun's shining!—Dan Cooper