FOREWORD

Recent years have seen accelerating efforts to organize government’s response to air pollution. The federal Air Quality Act of 1967 has now defined the general shape and direction of the federal effort and, in so doing, has focused renewed and additional attention on present and future regulation at the interstate, state, and local levels. Because it has appeared to the editors that a plateau has been reached from which it is possible to look both backward and forward, this symposium undertakes to provide a review of the current state of thinking and action on air pollution control.

In addition to the interest necessarily attached to any new challenge to man’s capacity to avoid self-destruction, the subject has interest as a practical problem of government. The most fascinating central difficulty is that of legislating and regulating with seriously imperfect scientific understanding and within the constraints of inadequate but fast-changing technology. Another matter of overriding interest is the Air Quality Act’s allocation of control responsibility, subject to federal oversight, to “air quality regions,” which are federally defined areas, transcending municipal and state boundaries, in which the affected states are to administer a coordinated control program. Both of these aspects of air pollution control—the need for regulation in relative ignorance and the federal experiment in “functional regionalism”—hold significance for future efforts toward dealing with other problems of an increasingly complex society.

Pollution pours from many sources, including motor vehicles and aircraft, but stationary sources pose most of the outstanding problems. Pollution from stationary sources is currently dealt with mainly through statutes, ordinances, or administrative regulations setting absolute limits on the pollutant emissions allowable; zoning-type “variances” are available in hardship cases. These laws, and especially the variance provisions, could probably be adapted by conscientious administrators to permit the weighing of both the benefits and the costs of pollution abatement as factors in determining whether to require it in a particular case. Still, a new generation of state and local air pollution control legislation may be the preferable means of replacing arbitrary emission standards with more sophisticated regulation. A possible advantage of the federal act’s allocation of ultimate responsibility to air quality regions is that it permits experimentation with regulatory approaches. Thus, one can hope
that out of the "laboratories" carved out by federal law mechanisms will emerge that are finely tuned both to accomplishing abatement effectively and to maximizing the return on each dollar required to be spent.

Whether innovations in pollution control will emerge under the federal act depends in part upon the flexibility with which the Department of Health, Education, and Welfare exercises its power to approve state control programs. The act appears already to have confined states to the use of emission standards rather than a system of effluent fees, which many economists have favored. HEW must at least allow to the states some freedom in granting variances, not confining their availability to cases where an unconstitutional "taking" of private property would otherwise occur. For example, variances might be made available in any case where the costs of abatement would exceed the damage reduction attributable to it; a desirable refinement would require a fee to be paid for the variance on a unit-of-pollution basis, a sort of effluent fee. Flexibility must also characterize HEW's use of its forthcoming "air quality criteria," which, being formulated without regard to abatement costs, should not be made a mandatory goal of every pollution control program. And, finally, the states should probably be allowed to select their own methods of dealing with the many subsidiary problems, such as those associated with controlling combinations of pollutants having synergistic effects.

These reflections on the problems of air pollution control should convey the nature of the challenge. The ultimate problems are many and difficult, including those inherent in (1) creating new regulatory institutions to "internalize" costs classed by economists as "external"—that is, imposed on others without compensation because of the inadequacies of the market and the legal system; (2) regulating an important industrial activity under conditions of extreme uncertainty about every aspect of the problem except the need to control it; (3) spurring efforts to find cheap technological answers and protecting the public health and interest until they are forthcoming; (4) incorporating sophisticated analytical and simulation techniques in a regulatory program; (5) regulating on a regional basis under intergovernmental arrangements yet to be developed; (6) dealing with vested economic and community interests and the pressures they generate; (7) attempting to limit pre-existing uses of private property without incurring a constitutional obligation to pay compensation for a "taking"; and (8) meeting standards of procedural due process, particularly in satisfying judges on evidentiary sufficiency where understanding is so limited.

The war against air pollution proceeds on many fronts—scientific, technological, economic, and legal—even as the strategy is still being mapped. This symposium should assist both tacticians and grand strategists in confronting an enemy that, while newly arisen, promises to be a permanent concern.

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