State Air Pollution Control Activities

By RICHARD L. WOODWARD, Ph.D.

AIR POLLUTION CONTROL in the United States has traditionally been a function of municipal governments. Virtually all of our larger cities have some type of ordinance for controlling air pollution. In the past, most of these laws were directed primarily at controlling coal smoke, but in recent years many of the laws have been broadened to consider other air pollutants as well. Most of the recently adopted air pollution control ordinances contain provisions on gas, vapor, fumes, and dusts from sources other than coal combustion.

With the growth of metropolitan areas and the movement of industries to suburban sites, it has become apparent that a municipality frequently is an unsuitable unit for operating an effective air pollution control program. If city A is carrying on a vigorous program of air pollution control, while neighboring city B does little or nothing, not only does the pollution from B affect A when the wind is in the right direction, but the residents and industries in city A will resist enforcement of their own

Dr. Woodward is sanitary engineer in charge of the Water Treatment Unit at the Robert A. Taft Sanitary Engineering Center, Public Health Service. During 1953-54 he was with the center's Planning and Evaluation Unit and worked on the development of the air pollution research program. This paper was presented at the annual meeting of the American Society of Civil Engineers in New York City, October 1954. laws. To overcome this difficulty, government units which control larger areas have been utilized. The first of these was in the Boston metropolitan area. The area, including some 31 cities and towns, has had a smoke control program since 1910 under the supervision of the division of smoke inspection, Massachusetts Department of Public Utilities.

In other areas the county was chosen as a suitable administrative unit. Hudson County, N. J., adopted a smoke control ordinance in 1931. In 1947 California passed an air pollution control ordinance establishing districts in each county. The district boundaries are coextensive with county boundaries and can be activated by the county boards of supervisors. Districts are operating under this act in Los Angeles County and in Santa Clara County. Kentucky adopted a similar law in 1952, and in the same year the Louisville-Jefferson County district was established to supersede the Louisville organization which had been powerless to act against important sources of pollution outside the city limits. Milwaukee County, Wis., and Allegheny County, Pa., also have countywide air pollution laws.

Need for State Action

In a number of instances the county is not an ideal unit for air pollution control work. In the San Francisco Bay area, for example, nine counties are involved. Many other metropolitan areas include parts of more than one county.

Moreover, although air pollution problems

are generally associated with large cities, they are not limited to them. Damage to crops, to other vegetation, and to cattle by fumes from smelters and other industrial installations have been the cause of considerable litigation. Many industrial installations are located in rural areas where there is no effective agency for air pollution control, and virtually the only remedy available to persons affected has been through direct court action.

Many parallels, legal and other, exist between the problems of air pollution and water pollution. Both are basically economic problems and both require a considerable amount of technical knowledge and skill for their solution. Both air and water pollution are to some extent inevitable and determinations must be made of what degree of pollution is to be tolerated and how pollution is to be abated or prevented. Both are continuing problems which require continuous positive action on the part of waste producers if pollution is to be kept within acceptable limits.

Air pollution and water pollution have important differences as well as similarities, and in some respects the air pollution problem is far more complicated. However, it is apparent that direct court action by the damaged parties is not an effective method of attacking either problem. In view of the position of the States under our form of government, the State is the logical unit for adoption of laws, development of programs, and assistance to local governmental units in the actual abatement of pollution.

One of the major fields in which there is need for State action is the provision of specialized technical services. A compilation of the expenditures of local air pollution control agencies made by the Air Pollution Control Association in 1952 showed that only 17 cities had budgets of \$25,000 per year or more (1). Only nine cities spent more than 15 cents per capita per year, the maximum being 35 cents per capita. In most communities, at least half of the personnel are inspectors. Thus, only the large cities are able, with present appropriations, to support more than the most rudimentary laboratory facilities for sampling and analyzing air to provide the basic information needed to assess problems or to support the technical staff needed to prescribe solutions to other than routine problems. The smallest city spending as much as \$25,000 per year in 1952 was Syracuse, N. Y., with a population of 220,000. Even so small a city will probably need considerable outside technical assistance in dealing with certain problems.

Survey of State Activities

The communities naturally look to State agencies for technical assistance and in most States some attempt is made to fill this need. A survey recently completed by the Robert A. Taft Sanitary Engineering Center indicates that in all but seven States some attempt is made to assist local governments in solving air pollution problems. As a rule the State agency most active in this field is the health department. In a few States, such as New York, the labor department is active, and in others Statesupported universities provide technical assistance to communities and industries.

In most States, however, these activities are only incidental to other work, and no specific financial support is provided for air pollution consultation, technical assistance, or control activities. In six States an agency has either an effective legislative mandate with respect to air pollution, specific executive authorization, or funds earmarked for this purpose. From this, it is obvious that in a majority of the States the activities of the agency are severely limited by lack of funds.

All of the State laws regarding air pollution other than the ordinary nuisance laws are relatively new and reflect the increasing interest and concern which have been particularly marked since the end of World War II. This same increase in interest is shown by the fact that about 80 percent of the local ordinances in effect in our larger cities have been adopted or revised in this same period.

Three States, Oregon, Massachusetts, and New Jersey, have laws establishing air pollution control agencies in the State government. In Oregon and New Jersey, an air pollution control commission or authority is established within the State health department. In Massachusetts the law places authority and responsibility in the health department without specifying the internal organizational unit for the activity. The division of sanitary engineering will, however, be responsible for air pollution control work under this law. The division of. smoke inspection, formerly under the department of public utilities, was transferred to the health department and is continuing its work in the metropolitan Boston area.

Oregon's law, the first of the three, was passed in 1951. The Massachusetts and New Jersey laws were adopted in June and September 1954, respectively. All three of the laws give the State agency power to promulgate rule's and regulations aimed at preventing or controlling air pollution and outline procedures for dealing with violations. Although in each case the State health department administers the law, the agency is not limited to considerations of the effects of air pollution on health.

The Massachusetts and New Jersey laws deal with the relationships between the State agency and local governmental air pollution control organizations in some detail. The Oregon law gives the authority to advise, consult, and cooperate with such groups and to encourage activity against air pollution. In Massachusetts, local agencies are authorized to regulate air pollution within their respective areas, with their rules and regulations being subject to approval by the State health department. If air pollution from one community adversely affects another, the State health department is authorized, upon request of the affected community and after a hearing with the parties concerned, to assume joint jurisdiction in dealing with the problem.

The New Jersey law authorizes the State Air Pollution Control Commission to organize county air pollution control commissions with advisory functions and also provides that the law shall not supersede local ordinances and regulations nor preclude the right of local agencies to adopt ordinances and regulations which are not inconsistent with the State law.

The Massachusetts and New Jersey laws have been passed so recently that there has been no experience with their operation. The Oregon Air Pollution Authority currently operates on a biennial budget of \$85,000 with a staff of 4 engineers, 1 chemist, and 1 stenographer and is authorized to develop a comprehensive program for air pollution control throughout the State. The staff has engaged in broad studies of the air pollution problems of the State as well as in investigations of specific problems brought to its attention by complaints. Experience to date has indicated a need for extension of the State air sampling activities and for the adoption of local ordinances to cope with air pollution problems within cities.

Maryland and Pennsylvania maintain units within the industrial hygiene bureaus of their health departments with specific responsibility for investigation, consultation, and assistance to local agencies on air pollution problems. The Maryland unit, although only partly staffed, has provided assistance to a number of communities. The Pennsylvania unit is equipped with two mobile laboratories for field studies and has investigated a number of problems throughout the State.

In Washington a different scheme has been adopted. The environmental research laboratory of the University of Washington was established in 1951 and has conducted a number of studies of air pollution problems on a fee basis for both public agencies and private sponsors. The Washington Institute of Technology has conducted research on the effects of air pollution on animal life and vegetation. On March 15, 1954, funds were made available by the Governor, and a statewide air pollution advisory service, which can provide assistance to local governments without requiring direct financial support from them, was established. This service is organized with the director of the Washington Pollution Control Commission as the State official cognizant of all air pollution activities, the environmental research laboratory as technical consultants on community health and welfare aspects of air pollution, the Washington Institute of Technology as technical consultants on the agricultural aspects of air pollution, and the air pollution committee of the Washington State Health Council as a general policymaking group.

In addition to these State activities, a number of States have considered legislation on air pollution, and several have established legislative committees or commissions to consider the need for legislation on the subject during the past 5 years. At least 16 States are known to have had some air pollution legislation or resolution under consideration in recent years.

One interstate air pollution problem has been the subject of State legislation. The New York legislature during its 1954 session passed a bill appropriating \$30,000 for use by the Interstate Sanitation Commission in studying the air pollution problem in the New York metropolitan area and developing recommendations for coping with this interstate problem. The act is to take effect when New Jersey makes a similar appropriation. The companion legislation in New Jersey has not been passed. Similar legislation was passed in 1952 by New York but not by New Jersey.

Summary

Since the end of World War II there has been a marked increase in interest in air pollution and in activities aimed at its control. Although the problem has been traditionally considered one for local action, in many places the need for State assistance to local governments has become apparent. State assistance is also needed to deal with problems when local control agencies are nonexistent or powerless to act because of lack of jurisdiction.

Three States, Oregon, Massachusetts, and New Jersey, have recently established air pollution control agencies in their State health departments with power to control air pollution. Three other States, Maryland, Pennsylvania, and Washington, have provided funds specifically for investigations of air pollution problems and assistance to local agencies.

In most of the other States, some agency, generally the health department, provides assistance to local agencies incidental to other operations, but such assistance is severely limited by the lack of any specific financial support for the work. In a number of these States, legislation dealing with air pollution has been considered recently. There is a trend toward increasing activity by State agencies in the air pollution field.

REFERENCE

(1) Air Pollution Control Association: Statistical tabulation of air pollution control bureaus, United States and Canada. Pittsburgh, Pa., The Association, 1952.

Mental Health Panel Discussion Kit

Portions of the film, Preface to Life, have been selected for a mental health panel discussion kit, for use on television or at meetings. The kit includes 135 feet of 16 mm. sound film, on a 400-foot reel in a 400foot can, and 6 copies of an outline of topics, for use as a guide in presenting a half-hour panel discussion.

Single copies of the outline are available at no charge from the National Institute of Mental Health, Public Health Service, Bethesda 14, Md.