

INTERSTATE SANITATION COMMISSION

A TRI-STATE ENVIRONMENTAL AGENCY

1983

IN BRIEF

NEW YORK NEW JERSEY CONNECTICUT

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Efforts to restore, maintain and improve environmental quality involve continuing regulatory and nonregulatory activities. The necessary tasks require funds to be expended by public agencies such as the Interstate Sanitation Commission and other state, local and federal agencies. There are also costs which must be incurred by private interests whose actions produce wastes which must be managed in environmentally acceptable ways.

All responsible people are against pollution and for measures which will keep the physical environment (water, air and land) uncontaminated, comfortable and attractive. However, all responsible people are also concerned about money and often strive to spend as little of it as possible. Although 1983 was a year of generally improving economic conditions, circumstances and attitudes generated or intensified by the recession were very much in evidence. Public funds available for environmental management were still in short supply and private interests were at least as cautious of making pollution control expenditures as they have been in the past.

CONSTRUCTION AND OPERATION OF TREATMENT FACILITIES

A variety of measures can and should be taken to minimize the quantities and contaminant qualities of wastes. Even if much more were done along such lines, however, the volumes and detrimental character of the wastes produced in the Greater New York-North Jersey-Connecticut Metropolitan Area would still merit serious consideration in terms of human health and welfare. Treatment and proper disposal are the only means of dealing effectively with the contaminants which burden the Region. Public responsibility for the appropriate measures are partly operational (as in municipal processing of sewage and industrial wastes) and partly regulatory (as in the control of discharges to waterways and of emissions to the outdoor atmosphere). In any case, equipment and facilities to process and remove wastes must be built, operated and properly maintained.

WASTEWATER

During 1983, approximately \$3 billion of new, improved or upgraded public sewage treatment and related facilities were either under way or identified as needing to be built in the Region. This compares with approximately \$7 billion of construction during the preceding decade. Only \$113 million of such con-

struction was actually brought to completion during the year and some \$800 million was in progress.

If one looks at the \$10 billion of projects identified as necessary to meet sewage treatment needs since the early 1970s, it must be considered that a large part of the total plant and equipment still has not been brought into existence. The expenditures made during that period, added to those of the preceding several decades, have resulted in substantial progress -- the waters are better than they were -- but much remains to be done before the waters are in satisfactory condition for bathing, boating, shellfish culture, commercial and sport fishing, aesthetic enjoyment, and overall environmental health.

Of course, the dollar figures alone are deceptive. One should not conclude that 30% of the earlier projected treatment facilities' needs of the Region remain unmet. Inflation has caused today's identified \$3 billion of construction to be less than it would have been if dollar values had remained stable. On the other hand, these figures take no account of the multibillion dollar needs for rectification of combined sewer overflow problems or the undetermined amounts that would be needed to cope satisfactorily with the untreated runoff.

The fact that only about one-third of the identified dollar value of projects needed was under construction in 1983 indicates at least a temporary shift in emphasis. A slowing of increase in treatment capabilities could be detected. In fact, there was pressure to cut back, even though water quality standards for the Region as a whole had not been attained.

RELAXATION OF SEWAGE TREATMENT REQUIREMENTS

Starting with the Federal Water Pollution Control Amendments of 1972, point source discharges (municipal and regional sewage treatment plants and industrial outfalls) have required permits. During the first few years after the Act became effective, U.S. EPA was the permit agency. Now Connecticut, New Jersey and New York all issue the permits under "delegated authority" as provided in Section 402(b) of the Federal Act. For discharges into the waters of the Interstate Sanitation District, the requirements under the Water Quality Regulations of the Commission are included as permit conditions.

There are provisions of the federal law under which qualifying dischargers may obtain variant effluent limitations (so far as federal requirements). Variances from state requirements depend on applicable state law.

In 1977, Congress added Section 301(h) to the Federal Water

Pollution Control Act, now alternatively referred to as the "Clean Water Act". That provision provides an additional procedure by which publicly owned treatment works (POTWs) discharging into marine waters can apply for effluent limitations constituting less than secondary treatment. As originally conceived, Section 301(h) was meant to apply only to discharges into deep ocean waters off the Pacific Coast. As enacted, however, the language was modified to apply generally to discharges on all coasts, including estuarine waters. The justification urged for the original concept was that disposal of sewage directly into the ocean in places where the water was deep and fast flowing could be allowed under lessened treatment without adverse effects on the environment. As enacted, the "ocean waiver" provision applicable to all coasts contains a number of safeguards in the form of criteria to be applied in considering waivers. While most of them are cast in terms of activities to be performed by applicants who obtain waivers, the overall import is to require determinations or assurances that the lessened treatment, in the particular case, will not have an adverse impact on the environment.

Modified permits resulting from 301(h) waivers are to be granted or denied by U.S. EPA, even in those states which have taken over the National Pollutant Discharge Elimination System Permit System (NPDES) as in the Commission's three member States. However, the federal law provides that EPA cannot proceed to consider an application, unless the state involved gives a "concurrence". Within the Interstate Sanitation District, this means by the State Environmental Department and the Interstate Sanitation Commission.

Twenty-two municipal and regional treatment facilities were before the Commission early in 1983 for concurrences in their applications. As the result of a study of dissolved oxygen content of the area waterways and other information, the Commission denied concurrence in all the applications. The reason for concentration on dissolved oxygen was that the parameter is an essential element of satisfactory water quality relating to marine biota and fish survival and propagation. These are also specifically stated values in Section 301(h).

The Commission study concluded that there was no reliable margin of dissolved oxygen available in the warm weather months. However, indications were that the situation was very likely otherwise during the winter. During 1983, the Commission further studied cold water conditions in order to determine whether to consider amendment of its Water Quality Regulations to allow variations in treatment requirements on a seasonal basis.

At its December meeting, the Commission had an analysis of the problem before it. In general, the material showed that, if

dissolved oxygen content were the only criterion, primary treatment could be allowed for a short season and modified biological treatment for a longer period from December through mid-April. However, problems related to toxics, increased deposition of solids, regional equities and legal considerations also needed to be considered. The Commission took no action looking toward revision of its Regulations. However, it seemed that the coming year would bring reapplications from at least some of the communities which would need to be further considered under the procedures of Section 301(h).

The attraction in consideration of reduced sewage treatment is the cost savings which would be effected. These would vary, depending on the processes employed by the individual treatment plants and by the extent of relaxation allowed. In some cases, it would also depend on whether the applicant had yet done the upgrading to secondary treatment required under the federal law since the enactment of the 1972 statute.

Further at issue was the relative importance to be given savings in financial costs and added stresses on the environment which reduction in treatment could entail.

COAL CONVERSIONS

Questions of costs and environmental burdens were also prominent in regional concerns over air quality. Until 15 years ago, there was significant use of coal in this region as a fuel for the generation of electric power. Conversion to oil and natural gas occurred partly because of the greater convenience of those fuels and partly for regulatory reasons. The oil required to be burned during the 1970s was that of low sulfur content (0.3%). Increasing dependence on foreign oil from high priced and sometimes unstable sources of supply led to consideration of return to coal. While studies and permit proceedings to decide on re-conversion were in progress, and in some cases for other installations as well, a number of exemptions from the 0.3% limitation were allowed.

During 1982 and the first half of 1983, a permit proceeding on applications of the Consolidated Edison Company for reconversion of its Arthur Kill Nos. 2 and 3 and Ravenswood No. 3 Units was held. The applicant proposed to burn 1.0% sulfur coal at these installations with electrostatic precipitators designed to 99.75% removal efficiency for particulate matter, but with no equipment to remove sulfur compounds from the emissions.

The Commission was a party to the proceeding. It took the position that coal burning should be permitted only if appropriate emission controls, including flue gas desulfurization, were

required.

On September 14, 1983, the New York State Commissioner of the Department of Environmental Conservation rendered his Decision. It offered the issuance of reconversion permits, but on the following conditions.

1. Installation and operation of electrostatic precipitators as proposed by the applicant;
2. Use of coal as a fuel, but only if flue gas desulfurization equipment effective to remove at least 90% of the sulfur from the emissions is installed and operated. In that event, up to 2.5% sulfur coal could be used;
3. All necessary permits for the coal burning were conditioned on the applicant first obtaining a permit for a suitable site for the disposal of the wastes from the coal burning and the required flue gas desulfurization processes.

The Report of the Hearing Officer, printed along with the Decision, also took specific note of a stipulation between the New York State Department of Environmental Conservation and the Commission that the requirements of the Commission's Water Quality Regulations would be included in any effluent discharge permits.

During the proceedings, a number of public agencies (including the States of New Jersey and Connecticut) took a variety of positions designed to limit emissions or to substitute conservation practices as a means of environmental protection.

The Commissioner of the New York State Department of Environmental Conservation in his Decision announced conditions for the permits which were the same as those advocated by the Interstate Sanitation Commission on the air and water quality issues. The Commission did not take positions on a number of other matters argued during the course of the proceeding because those did not pertain to its jurisdiction and responsibilities.

At the close of 1983, the long-term future of coal burning by utilities in the Metropolitan Area was not clear. Oil prices had declined significantly from their highest levels. Conditions in the Middle East, from which much of the world's petroleum supply comes, remained unsettled and seemed likely to continue disturbed for the indefinite future. The latter point might be construed as favoring return to increased use of domestically abundant fossil fuel. But the cost of flue gas desulfurization which Consolidated Edison had argued against made it uncertain as to whether the Company would proceed. On the other hand, the Power Authority of the State of New York in earlier seeking permits for

a new power generating facility in an Arthur Kill location adjacent to the Consolidated Edison Plant had indicated a willingness to install flue gas desulfurization for emissions from coal and refuse fuel sources. However, that project, after initial approval, was blocked by a combination of gubernatorial and U.S. EPA actions. On December 13, 1983, Consolidated Edison filed a petition for reconsideration of its Ravenswood and Arthur Kill coal reconversion applications with the NYS DEC.

CONCLUSION

The need to resolve issues involving costs and environmental quality is not new. However, the events of the past year have thrown them into sharp relief during the current course of air and water quality management programs in this Region. On the whole, policies embodied in federal and state law recognize the need to protect the environment. They emphasize the importance of human health, ecological preservation and the general welfare. Many of the factors in these categories cannot be measured in economic terms. On the other hand, applicable federal and state laws also contain procedures for the consideration of economic issues and for the making of case-by-case determinations in some instances. The fact that all effluent dischargers and all air emission sources contribute to the condition of regionally inter-related waterways and a regionwide airshed make the balancing of individual source regulation and regional interests extremely complex.