

INTERSTATE SANITATION COMMISSION

A TRI-STATE ENVIRONMENTAL AGENCY

1985
IN BRIEF

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During the 1960s and 1970s great strides were made in improving the quality of water and air in the Tri-State Area. Requirements for secondary treatment of sewage and equivalent treatment of industrial wastes signaled the advance. Construction and upgrading of treatment facilities to meet this requirement have improved the actual quality of waterbodies in the Interstate Sanitation District, including some which, although far from satisfactory, have become less degraded than they were. The open air of the Region was improved considerably by the cessation of burning coal to generate electric power and by more stringent emission control requirements for industrial and commercial establishments. Limitations on the permissible sulfur content of fuel oil also helped reduce pollutant levels.

Although improvements have been made in the recent past, many of the presently applicable standards have not been attained. Water quality has not improved to the degree envisioned in the original Clean Water Act legislation; many waterbodies in the Interstate Sanitation District are not "fishable/swimmable". Similarly, although recent U.S. EPA studies indicated that air quality has improved in the nation as a whole, it has remained essentially unchanged in the Greater New York Metropolitan Area.

In addition, serious gaps persist in data concerning present environmental quality which, if filled, might show other categories of pollution requiring correction. For example, although the U.S. EPA's 1983 Report on National Air Quality and Emissions Trends discusses improvement in air quality based on levels of criteria pollutants (ozone, sulfur dioxide, carbon monoxide, nitrogen dioxide, lead, and particulates), no similar body of information is available for noncriteria pollutants. In terms of water quality, the gradual upgrading of facilities to meet secondary treatment requirements has indicated that combined sewer overflows present another obstacle to water quality improvement.

The Commission continues to play its role, within its budgetary limitations, in augmenting the data base and meeting its responsibilities in order to improve the environmental quality in the Interstate Sanitation District.

LIBERALIZED PERMIT CONDITIONS

Advances in water quality over the past 25 years have resulted from improvements in almost all of the Region's treatment plants to provide secondary treatment for their wastes and to

meet the requirements of the Water Quality Regulations of the Interstate Sanitation Commission. However, these facilities and their equipment must function as intended in order to maintain improved water quality. During the past several years, facilities have sought to roll back the present level of treatment.

The number of applications for "waivers" under Section 301(h) of the federal Clean Water Act has been a major manifestation of this tendency. The Commission's action in denying concurrences in these applications was the key factor in stopping discharge permit modifications which would have resulted in more heavily polluted effluents being discharged into the Region's waters. This option of reduced treatment was foreclosed in 1985 with U.S. EPA's final denials of the pending reapplications (based on the Commission's denials of concurrence) and New York City's withdrawal of its reapplication for Newtown Creek.

Using another procedure to obtain less stringent discharge standards, the Middlesex County Utilities Authority (MCUA) in New Jersey applied for an adjudicatory hearing in 1985 to contest its just-issued New Jersey Pollutant Discharge Elimination System Permit. Issued by the State, under the procedures of Section 402(b) of the federal Clean Water Act, this is the type of permit generally regarded as the most frequent reliance for governmental regulation of waste discharges to waters.

The basis for the MCUA challenge to its permit was that it claims a right to receive allowances for the amounts of industrial wastes which it collects and processes. The Commission's Regulations require compliance with its Biochemical Oxygen Demand and Solids effluent limitations by all dischargers. The Commission participated actively in this adjudicatory hearing in order to maintain the present effluent limitation requirements for MCUA. Recently, MCUA notified the Commission that it had decided to no longer contest those limitations.

CLASSIFICATIONS AND USES

The Commission classified the waters of its District as Class "A" or "B" in accordance with intended uses. In large part, these designations match the uses for which the waters are actually suitable at the present time. However, these classifications are also made on the basis of the uses which should reasonably be made of the waters in question. Consequently, the water quality requirements for Class "A" and Class "B" are standards to which the waters should conform in order to make them suitable for the designated uses. Each of the Commission's member states also classifies waters according to a system of its own. These classification systems differ somewhat from each other and from that of the Commission. However, the Commission has

been successful in harmonizing state use designations and the accompanying standards for adjacent or interacting waters.

In the federal Water Pollution Control Act Amendments of 1972, the stated national goal was to make all waters "fishable and swimmable". While this objective has been modified by the words "where attainable" in the present federal law, certain implementing regulations of U.S. EPA require periodic state reviews of water classifications to determine the use "attainable" for a waterbody. In the Interstate Sanitation District, both New York State and New Jersey have made such studies in 1985 and have proposed upgrading several waterbodies. The Commission provided information for these studies and supported the proposed upgradings at public hearings.

The Commission is also studying possible changes in its use classifications to make it possible for the requirements in each class to be more accurately formulated on the basis of conditions necessary for particular uses. For example, both the states and the Commission have traditionally used the dissolved oxygen criterion as the primary means of differentiating between recreational and nonrecreational waters. For some purposes, this criterion is controlling. However, the amount of dissolved oxygen has little direct bearing on its suitability for swimming, wading, surfing or water skiing. Other criteria related to cleanliness and health risks are more important for these uses.

LONG ISLAND SOUND ESTUARINE STUDY

Long Island Sound is one of the most important water resources in the Region. Throughout modern times, its quality has been relatively good, except for localized areas (especially in harbors and heavy population or industrial concentrations). Water quality data for the Sound are much less adequate than in most other parts of the Region. In order to obtain this necessary data and, consequently, to provide a basis on which environmental management decisions could be made to preserve or improve the Sound, a Long Island Sound Estuarine Study has been undertaken.

The study is a cooperative, multiyear effort financed with federal funds being administered by the U.S. EPA. The National Oceanic and Atmospheric Administration, the Connecticut Department of Environmental Protection, the New York State Department of Environmental Conservation, the Interstate Sanitation Commission, and a number of academic institutions are all participating in the study.

A good and continuous data base is essential to proper water quality management. The requirements of federal, state, inter-

state, and local environmental management programs have helped to prevent serious deterioration in most parts of the Sound and to keep such problems as exist from being exacerbated. In order to understand the complexities of the estuarine system and to improve its water quality, data describing the Sound's conditions over time and over its length are needed, as well as information on specific pollutants and their concentrations. This is the information that the Long Island Sound Study should provide.

COMBINED SEWER OVERFLOWS

With the near completion of construction of new or improved sewage treatment facilities in the Region that will meet secondary treatment requirements, the focus in water quality improvement has turned to other sources of pollution. A significant cause of continued sewage discharge into the waters of the Interstate Sanitation District is combined sewer overflows (CSOs).

Many of the functioning sewer lines in the Region are old and do not isolate sanitary waste from stormwater. During incidents of rainfall, these CSOs discharge large amounts of untreated sewage into the waters of the area. This leads to beach closures in the summer and elevated coliform levels whenever it occurs. It also causes the closure of shellfish beds.

Numerous municipalities in the area are currently either designing or implementing plans to alleviate the CSO problem. The Commission is involved in this effort and is in the process of evaluating CSOs from a regionwide perspective in order to provide a foundation for coordinated planning of CSO improvements that will improve water quality to the greatest extent possible.

RESOURCE RECOVERY

The problem of municipal solid waste disposal in the Metropolitan Area has presented serious difficulties for many years. Two previous methods of waste disposal, the landfill and conventional incineration, have been subjected to greater environmental scrutiny in the past several years, forcing municipalities to look for alternatives. As a result, resource recovery facilities have been introduced as a method of waste disposal and, during this past year, the Commission has presented testimony on several proposed facilities in the Region.

Resource recovery facilities incorporate a mass-burn technology with some steam/electric generation and metals recovery. The Commission is in favor of this method of waste disposal, but emphasizes that this technology also has drawbacks that must be minimized. First and foremost is the health risk posed by the

toxics emitted during the combustion of solid waste, including toxic metals and dioxins and furans. Although use of high efficiency pollution abatement equipment should reduce emissions of dioxins and furans, as well as those of more conventional pollutants, any additional steps necessary to reduce the dioxin emissions should be taken. This includes maintenance of high combustion standards. Periodic stack testing or continuous monitoring should be implemented to assess levels of pollutant emissions. Ash residue, whether now considered hazardous or not, should be placed in a secure landfill to forestall future problems.

The ISC advocates a comprehensive recycling/source separation program as an integral part of a municipality's solid waste management plan. This effort should aim at separation of incombustible materials, such as glass and metals, and recycling of newsprint and office paper. Separation of plastics should be considered if dioxin emissions occur in unacceptable levels.

ODOR IDENTIFICATION TRAINING

One of the Commission's chief endeavors in its interstate air pollution program has long been to work with citizens in combating poor air quality. To this end, it has been the principal agency in the Region for responding to citizen complaints of contamination episodes. Even if the Commission could afford to augment its very small staff of field personnel (a necessary objective), it could not have anywhere near as many employees to detect air pollution as there are members of the resident population who smell and see objectionable contamination.

During 1985, the Commission went one step beyond obtaining leads from citizens by questioning them on the nature of the odor complaints which they submit. It invited a group of citizen volunteers to learn to correctly identify pollution odors common in their area. Commission personnel brought samples of pollution odors and instructed the attendees on the characteristics and identification of those odors. The Commission has so far held two training seminars and the goal is to train over 200 citizens.

With this type of specific knowledge, the complaints received by the Commission can provide better information for follow up and tracing of sources of pollution.