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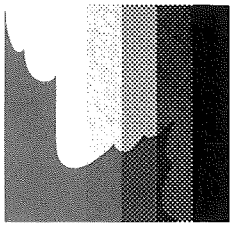

CONTROL AT SOURCE: MISA AND INDUSTRIAL SEWER-USE IN ONTARIO

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One of the key issues arising out of the MISA White Paper, following its release in the summer of 1986, was the lack of detail on how industrial discharge to sewers would be regulated. While the White Paper dealt in detail with the regulation of direct discharges to Ontario waterways, including municipal sewage treatment plants, it did not specify the way in which the over twelve thousand industries that discharge indirectly into the environment, by way of releases to municipal sewage works, would be regulated. Many municipalities, in their response to the White Paper, wondered how they were going to meet these tougher standards for discharge from sewage treatment facilities without additional regulatory powers and resources to control what was coming into their sewer systems.

Arising out of the response to the White Paper, the Ministry of the Environment began to focus on this problem. Two key questions have yet to be answered:

- Who should set standards for discharge to municipal sewer systems? Right now, municipalities set these standards by way of sewer-use by-laws.
- Who should enforce these standards? Again, municipalities currently have responsibilty for policing sewer-use by-laws in order to control what comes into their sewage treatment works.

The Ministry recognized the need to think through these questions in light of the MISA program. It commissioned a study by M.M. Dillon to look into "sewer-use control options". That study's recommendations were released this past month. Based on this report, and comments received following release, the Ministry is now putting the finishing touches on a discussion paper which will set out their proposal for regulating discharges into sewers.

Last spring the Canadian Environmental Law Research Foundation received funding from the Ontario Ministry of the Environment and the Municipality of Metropolitan Toronto to conduct its own investigation into the best method for regulating industrial discharges to sewers. Thus, at the same time as the government has been developing its proposal to address this important area, CELRF has been in the process of developing specific recommendations for regulatory change in this same area.

In the time remaining, I would like to briefly review some of the findings and recommendations of the CELRF project, titled "Control at Source".

The objective of this project was to make an independent examination of the problem of sewer use at the same time as government policy was being developed and, through public consultation, to assist the policy development process. Our project began in September, 1987, as Dillon was concluding its study. Given that the issues surrounding sewer use regulation involved two levels of government and most major industry groups in the province, public consultation was key to the project. At the outset we established an advisory committee to provide input into all phases of research, and to assist in the development of our recommendations. This advisory group included representatives from the Association of Municipalities of Ontario, the Municipal Engineers Association of Ontario, as well as representation from the Municipalities of Halton, Niagara-on-the-Lake, and Metro Toronto. MOE and Environment Canada, as well as industry representatives were also participated on this advisory group. This advisory committee met three times and recently reviewed and provided comments on the final draft of "Control at Source". Research for the project included a series of interviews with ten Ontario Municipalities to gain an understanding of the physical and regulatory problems presented by industrial discharges entering municipal sewer systems. We also surveyed existing information on current regulatory practice, both in Ontario and other jurisdictions, and focused extensively on the American approach to regulating industry discharges to sewers.

In January, 1988, CELRF conducted a workshop with participation from all sectors to discuss the project findings to date and alternative proposals for regulatory action.

Before discussing our recommendations, which involve some unsettled questions, I would like to point out what appears to be settled about the way to proceed. One aspect of the debate has crystalized - we know from the way the MISA program has evolved and from the Dillon study on sewer-use control options that the province is not about to recommend that sewage treatment plants solve the problem of toxic contamination. The end of pipe solution is no longer acceptable in Ontario. The Ministry of the Environment's work is focused on controlling toxic discharges at source. The Dillon study recommended setting standards which will require industries to pretreat on site. It is now clear that when the new sewer-use control regulations come into place, it will not be acceptable for industries to use sewers as a disposal method for their hazardous wastes.

However, four key questions have yet to be answered. These questions are likely to be the focus of the MOE discussion paper, and were the key areas of the CELRF study.

- First, who should set regulatory standards for industrial discharge into sewers?
- Second, what types of standards should be set?
- Third, who should ensure compliance with these standards? (this is a key question, since ensuring compliance with serious standards is an expensive proposition, for which every level of government must pay the cost.)
- By what means can we best ensure compliance?

1. WHO SETS THE STANDARDS?

"Control at Source" recommends that the provincial government be responsible for setting standards, and that these standards be established in provincial legislation. This is a clear break from the current approach, in which each municipality sets sewer use standards in

their own by-laws. The CELRF study found that there is a need for uniformity of standards across the province, and the municipal by-laws are not providing this uniformity. For example, London sets limits for thirty different types of toxic contaminants in their sewer-use by-law, while Belleville regulates only fourteen. For a specific type of contaminant, the limit may also vary from municipality to municipality. For example, discharge of zinc is allowable in concentrations of three milligrams per litre in Halton, five milligrams per litre in Metropolitan Toronto, eight milligrams per litre in Belleville, and ten milligrams per litre in Windsor.

Lack of uniformity means that:

- Competing industries could have different standards to meet, depending on the municipalities within which they are located.
- New industries looking for a municipal location may be attracted to municipalities with less stringent sewer-use standards.

The best way to ensure clear standards which are applied fairly and uniformly across the province is by setting the standards forth in provincial legislation.

The use of provincial regulation reflects the fact that the province has primary responsibility for environmental protection of Ontario's waterways from toxic discharges.

2. WHAT TYPE OF STANDARDS SHOULD BE SET?

After surveying municipal by-laws across the province, the study concluded that standards currently in place are not adequate to meet the province's stated objective of virtual elimination of toxic contaminants entering Ontario waterways. Two key problems were identified:

- Current by-laws set standards on the basis of allowable concentration limits. This means that industries could potentially meet standards by diluting industrial effluent rather that reducing the amounts of contaminants entering the sewer system. Total loading of contaminants to the environment is thus not controlled by current municipal by-laws.

. Many key pollutants are not regulated at all. Based on a list of over fifteen thousand pollutants found in the Great Lakes region, the MISA Priority Pollutants Task Force has so far identified one hundred and eighty priority pollutants, which are present in Ontario municipal and industrial effluent, and which have been determined to pose a hazard to the receiving environment. The most comprehensive of Ontario's municipal sewer-use by-laws regulates only thirty different types of contaminants. Further, most by-laws focus on inorganic chemicals, but set few, if any, limits for organic compounds.

A good deal of the CELRF report is devoted to assessing what types of standards should be put in place to control industrial discharges to sewers. We selected an approach to standard setting and a standard-setting process which is consistent with the MISA program.

MISA proposes a two-track approach for standard setting. Standards are set for industrial sectors, based on best available technology with a water quality standard to be developed for environmentally sensitive water bodies, if these technology based standards do not prove to be strict enough.

Our report concluded that both of these types of standards should be developed at the same time, since they serve complementary purposes: one determines the standards industries are capable of meeting given current technology, the other determines the needs of the receiving environment.

In our view it is important to set standards which are based on information at both ends of the pipe. It is not enough to set standards which are technically and economically feasible. Information is urgently needed on the current state of water quality in Ontario and what this means for the discharge standards we need to set.

The most important recommendation regarding standards is that the discharge of industrial hazardous wastes - as defined by the province's environmental protection legislation be prohibited. The report calls for the

establishment of a prohibitions list - a list of substances which are so hazardous to human health and the environment that industry should not be allowed to discharge them into our province's sewer systems. As a starting point, the report recommends those wastes which are defined as hazardous by the province's Regulation 309 not be discharged to Ontario's sewers. This is precisely the prohibition list which has been incorporated into the new model sewer use by-law. That model by-law was recently finalized by the Ontario Ministry of the Environment, in consultation with Environment Canada, municipal representatives, and the Municipal Engineers Association of Ontario. The prohibitions contained in the by-law have been agreed upon as workable and necessary for adequate environmental protection by the province's top technical experts on sewer use. CELRF's recommendation is simply that these agreed upon provisions be established in provincial legislation. In general, the principle of the prohibitions list is consistent with the province's objective of virtual elimination of toxic discharges. Prohibitions are clear, easy to understand and straighforward to enforce. They ensure control of toxic contaminants at source.

3. WHO SHOULD BE RESPONSIBLE FOR ENSURING COMPLIANCE?

Our report recommends that primary responsibility for ensuring compliance with standards for discharge to sewers rests with the province. This recommendation needs further elaboration, since it differs from the direction that the provincial government appears to be moving. The MOE study of sewer use control options by M.M. Dillon called for a primary municipal role unless the municipality does not have the capacity to do the job. It appears that the province is likely to follow this recommendation in their discussion paper. My understanding is that the discussion paper is likely to propose that :

- the province be responsible for establishing tougher standards for industrial discharge to sewers

. municipalities be given primary responsibility for enforcing those standards

Further, the Ontario Minister of the Environment is on record as stating that if municipalities do not do an adequate job of enforcing these tougher standards, the province could prosecute them for failing to meet their responsibilities as a regulator. Our view is that this indirect approach to provincial regulation - with municipalities fronting for MOE - will not be as effective as direct provincial regulatory responsibility.

This finding is based in part on a review of the U.S. approach to sewer use regulation, which requires minicipalities to develop and implement a monitoring and enforcement program to ensure compliance with federally developed standards. A recent audit of the U.S. program by the U.S. Environmental Protection Agency indicates that this delegation of responsibility to local authorities has not resulted in an effective program.

Some statistics:

. only 6.4 per cent of the local authorities surveyed were deemed to be meeting their federal requirements for pretreatment programs

. over half of the authorities were judged to be incorrectly applying these standards

. municipalities often had, or had allocated, insufficient funds to adequately carry out monitoring and enforcement

Our research indicated the following problems were experienced under the U.S. system:

. municipalities were not recognizing the compliance program as a political priority

- local agencies were unclear how standards were to be applied

- municipalities were reluctant to enforce standards, in many cases due to political pressure at the local level

These findings are not necessarily translatable to the Ontario situation, however, our report concluded that many of the problems experienced in the U.S. context ould be avoided in Ontario if the provincial government accepted full regulatory responsibility for their sewer use control program.Allocating responsibility for both setting and enforcing sewer use standards would:

- concentrate accountability for protecting the natural environment from industrial discharges with the level of government that has primary responsibility for environmental protection

- minimize the opportunity for inconsistent enforcement of sewer use standards across the province by eliminating potential for varying efforts to ensure compliance among different municipalities, and

- maximize efficiency and minimize costs of compliance efforts by avoiding duplication of efforts, and taking advantage of economies of scale.

The report notes one major disadvantage with transfering responsibility for ensuring compliance with sewer use standards to the province. A number of municipalities in Ontario are currently operating extensive sewer use control programs. The report recommends that these, generally larger, municipalities with existing enforcement capabilities should be given the opportunity to "opt in" to the provincial enforcement program. To ensure uniformity, a municipal "opt in" program would be required to meet minimum standards and be approved by the province. "Control at Source" describes this "opt in" approach in detail.

The report also recommends detailed specific requirements of a compliance program which it proposes would serve as mimimum standards for any regulatory agency responsible for ensuring compliance with sewer use standards.

When the MOE discussion paper, and "Control at Source" are released in the next few weeks for public comment, members of the public will have the opportunity to compare and assess the recommendations for regulatory change proposed by both groups. Our hope is that the CELRF paper can contribute meaningfully to the important dialogue among industry, the public and both provincial and municipal governments, which will lead to the much needed regulatory action in this area.