

**THE POLLUTING
OF
LAKE ONTARIO:**

REGULATION EFFORTS ON BOTH SHORES

A WORKSHOP SPONSORED BY

ATLANTIC STATES LEGAL FOUNDATION

AND

**THE CANADIAN INSTITUTE FOR ENVIRONMENTAL
LAW AND POLICY**

FUNDED IN PART BY THE CHARLES STEWART MOTT FOUNDATION

**AUGUST 24, 1989
ST. LAWRENCE HALL
TORONTO, ONTARIO**

Canadian Environmental Law Association.

VF:
CANADIAN INSTITUTE FOR
ENVIRONMENTAL LAW AND POLICY.
The polluting of Lake Ontario:
Regulation efforts on bo...RN1940

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AGENDA

9:30 - 10:00

Registration, refreshments

10:00 - 10:15

Introduction and welcome

10:15 - 10:45

Bi-National Water Programs: Great Lakes Water Quality Agreement, the International Joint Commission, Remedial Action Plans, Lake Ontario and Niagara River Toxics Management Plans.

Speakers: Sue Mihalyi - ASLF, Jim Ahl - Great Lakes United

10:45 - 11:45

Clean Water Act overview

Speaker Barry Boyer - SUNY Buffalo

11:45 - 12:30

New York State Water Programs Part 1: Overview

Speaker: Samuel Sage - ASLF

12:30 - 1:15

Lunch

1:15 - 2:15

Water Programs Part 2: SPDES - the process: Applications, Renewals, Enforcement, Direct and indirect discharge, Access to information

Speaker: Samuel Sage

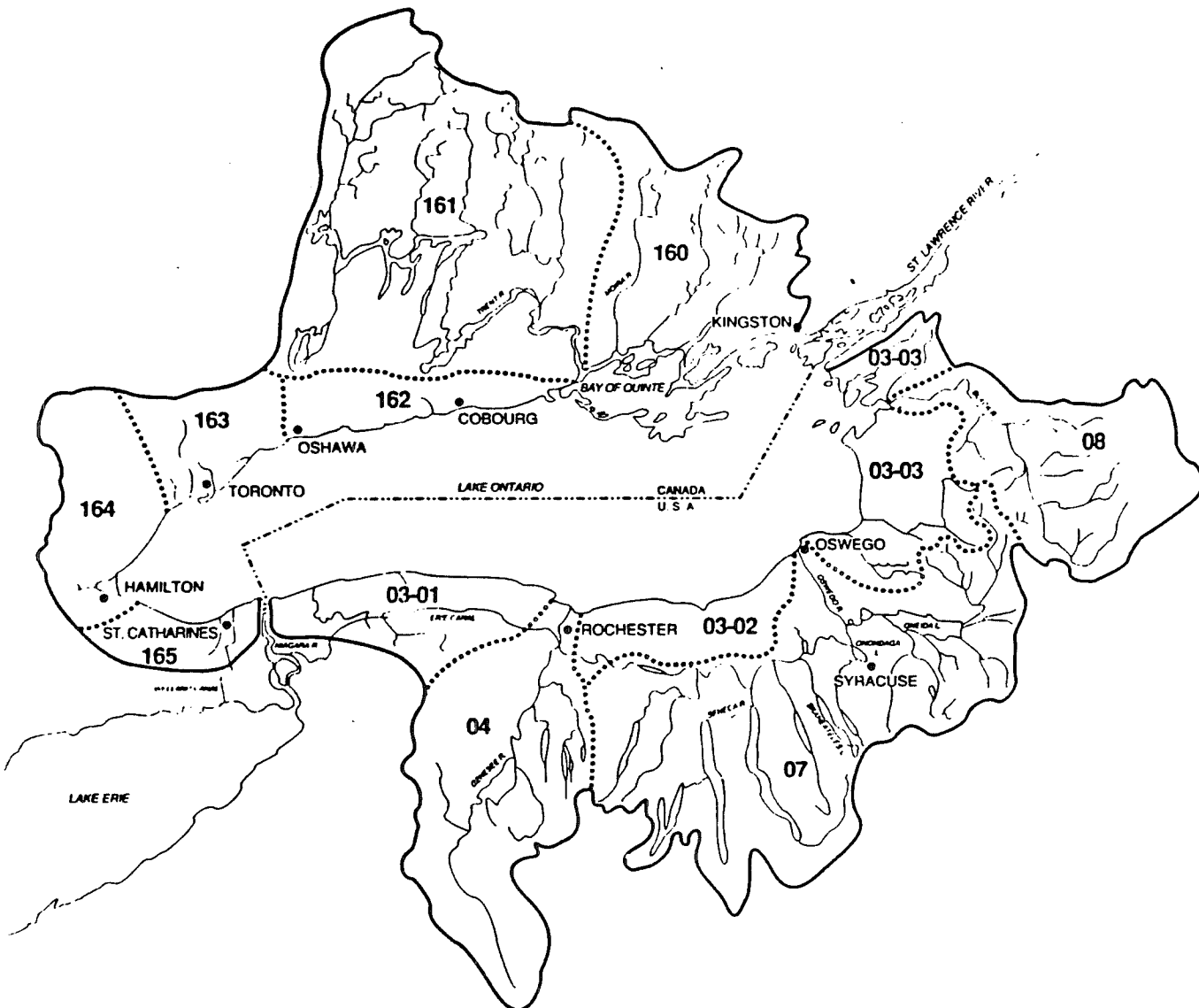
2:15 - 3:30

Comparison with Canadian law: Certificates of Approval, Enforcement, MISA, International Implications

Speakers: Paul Muldoon and Marcia Valiante - CIELAP

3:30 - 4:00

Summary and Evaluation



Lake Ontario Basin and Major Sub-Basins

Sub-Basins	
Ontario	
160 - Belleville - Napanee Area Rivers	
161 - Trent River	
162 - Oshawa - Colborne Area Rivers	
163 - Toronto Area Rivers	
164 - Hamilton Area Rivers	
165 - Niagara Peninsula Rivers	
New York	
03 - Lake Ontario	01 Western Section
	02 Central Section
	03 Eastern Section
04 - Genesee River	
07 - Seneca - Oneida - Oswego Rivers	
08 - Black River	

ATLANTIC STATES LEGAL FOUNDATION

FACT SHEET

[Atlantic States Legal Foundation] has forced more cleanup projects and served as a greater deterrent to pollution than dozens of state bureaucracies from the Mississippi River to the Atlantic Ocean. (Syracuse New Times, July 1988)

Atlantic States Legal Foundation (ASLF) is a not-for-profit membership-based corporation formed by environmental leaders in 1982 in order to implement an aggressive program to protect and restore the human and natural environment. The unique focus of Atlantic States is to help local communities with local environmental problems, to assist local groups faced with problems who don't know where to turn, and to work on problems that fall between the cracks in the programs of other national groups. We build and strengthen local community and citizen groups throughout the country. ASLF has directed these resources to a wide range of situations including: (1) the clean up of toxic hotspots in the Great Lakes Basin, including the St. Lawrence River, (2) the promotion of safe and economical solid and hazardous waste disposal alternatives, (3) enforcement of the Clean Water Act, and (4) clean up of hazardous waste sites. The following are examples which highlight the variety and impact of ASLF work:

LEGAL

- Initiated as many as one-fifth of all the citizen suits that have been brought in the United States to limit the discharge of pollutants under the Clean Water Act
- Brought over 200 legal actions against major polluters in over 20 states and Puerto Rico which resulted in cleaner water and over \$3 million in settlement awards. ASLF has achieved notoriety through channeling much of this money into funding for environmental projects throughout the country
- Impacted state, national, and international environmental policy and procedure. As an example, our lawsuit against Reynolds Aluminum for discharge of pollutants into the St. Lawrence River has influenced New York State regulations on discharge of PCBs. The State is now considering a recommendation of no discharge of PCBs into state waterways

FUNDING

- ASLF has been influential in getting funds allocated for many programs benefiting environmental concerns. Funding has gone to:
- The Mississippi River Revival for programs to benefit the Mississippi River and to extend its activities to the whole basin
- Support staff positions as well as technical and organizing expertise to implement the Great Lakes Remedial Action Plans for Oswego, NY; Milwaukee, WI; Northwest Indiana; and Massena-Cornwall, an international RAP on the St. Lawrence River
- Great Lakes United to further its work to protect water resources of the Lake Ontario basin

- Projects to acquire and protect lands with vital, fragile ecosystems. Includes our sponsorship of an innovative project which utilizes cattails to remove heavy metals from contaminated sediments
- Scenic Hudson for its programs to benefit the Hudson River

ORGANIZING

- Provided organizing support to citizen groups such as Supporters to Oppose Pollution (STOP). We assisted STOP with the Four County Landfill in Indiana. In a recent victory, the EPA and the State of Indiana have denied permits to continue operating this horrendous hazardous waste disposal site
- Worked with the Mohawk Nation at Akwesasne to resolve pollution hazards that are limiting the traditional way of life of these Native Americans, including restrictions on fishing, hunting, use of farmland and drinking water
- Helped with the start-up of RECYCLE FIRST as a national organization with its first chapter in Syracuse, NY, to work on the development of alternative solid and hazardous waste disposal methods. Our aim is to minimize landfilling and mass-burn incineration, while encouraging the use of renewable, recyclable resources

TECHNICAL

- Served as one of the few citizen groups that have been requested to participate on state, national, and international advisory committees to help formulate environmental policy
- Developed a network of environmental specialists to provide a variety of technical expertise to local groups
- Provided technical assistance to citizen groups at Superfund sites who have received Technical Assistance Grants from EPA

NETWORKING

ASLF has developed a strongly supportive and close working relationship with a broad spectrum of the environmental community, including the following groups:

- **International** - Great Lakes United, Greenpeace, Sierra Club; **National** - Citizens for a Better Environment, the Rural Coalition, Institute for Local Self-Reliance, the National Wildlife Federation;
- **Canadian** - Pollution Probe, Canadian Institute For Environmental Law and Policy, Canadian Environmental Law Association, NirvNon Profit;
- **Local or Regional** - Lake Michigan Federation, People Against Hazardous Landfill Sites, Save the Dunes Council, Wisconsin Environmental Decade, Georgia Environmental Project, Hoosier Environmental Council, Save the Bay, Del-AWARE

CANADIAN INSTITUTE FOR ENVIRONMENTAL LAW AND POLICY

The Canadian Institute for Environmental Law and Policy (CIELAP) is an independent, non-profit research institute, founded in 1970. The focus of the Institute's research is the way in which change can be effected through policy development.

The goal of the research Institute is the development and implementation of environmental law and policy which will ensure protection of human health and the natural environment in a manner complementary to the achievement of other social and economic goals.

During the past two decades public values have changed to the point that environmental protection and economic well-being are now seen as goals of equal worth. They cannot both be achieved, however, until we implement legislative and institutional changes which will ensure the full integration of environmental and economic decision-making in both the public and private sectors.

*"We see ... the possibility for a new era of economic growth, one that must be based on policies that sustain and expand the environmental resource base."
Our Common Future, Report of the Brundtland World Commission on Environment and Development, 1987.*

The Canadian Institute for Environmental Law and Policy is working toward this end by carrying out, in consultation with all sectors, two programs of activity:

Research/publishing:

Research is primarily focussed upon legislative and non-legislative policies and programs, at the provincial, national and international levels, required to reduce or eliminate environmental degradation.

In some areas of activity, such as the regulation of biotechnology, CIELAP is the only non-government Canadian organization working to develop environmental policy proposals, while in others it works in concert with those in Canada and elsewhere who are on the leading edge of environmental protection policy.

Policy Dialogue:

CIELAP works to advance environmental policy development by undertaking long-term research and developing policy alternatives which are then placed on the table for full public debate by all parties at workshops, seminars and conferences.

Areas where CIELAP is Working to Meet the Need for Research and Dialogue

Toxics in Air and Water and Land

Hazardous Waste Management

Biotechnology Policy Development

Compliance with Environmental Law

Protecting the Great Lakes Ecosystem

Canada and World Sustainable Development

1988 Projects

Zero Discharge

Toxic Water Pollution in Canada: Regulatory Principles for Reduction and Elimination

Bridging the Gap [between scientists and reporters]

A Toxic Real Estate Manual and Workshop

Canadian Environmental Law Reports

The Company Polluted So Why Did I Get Charged?

Control at Source: Regulating Industrial Sewer Use In Ontario

1989 Projects

Environmental Bill of Rights

Program for Zero Discharge: Eliminating Toxic Substances from the Great Lakes Ecosystem

Environment on Trial (3rd Edition)

Compliance with Environmental Legislation

Financial and Investment Instruments as Incentives to Environmental Responsibility

Future Directions for Biotechnology Development in Canada

Options for Sustainable Development in Forestry

Key to Compliance

Legislative Initiatives for Reducing Solid Waste

Citizens Guide to Land Use Planning

Canadian Environmental Law Reports Cumulative Index 1983-1986

Indonesia-Canada NGO Twinning Program

Future Directions for Hazardous Waste Management in Canada

Implications of Energy Regulation for Sustainable Development

An Environmental Agenda for the 1990's

GREAT LAKES WATER QUALITY AGREEMENT

Concluding that the best means to preserve the aquatic ecosystem and achieve improved water quality throughout the Great Lakes System is by adopting common objectives, developing and implementing cooperative programs and other measures,...[the Parties have agreed :]

The purpose

...to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem ...to develop programs, practices and technology necessary for a better understanding of the Great Lakes Basin ... to eliminate or reduce to the maximum extent practicable the discharge of pollutants into the Great Lakes System.

... it is the policy of the Parties that:

The discharge of toxic substances in toxic amounts be prohibited and the discharge of any or all persistent toxic substances be virtually eliminated

Financial assistance to construct publicly owned waste treatment works be provided by a combination of local, state, provincial, and federal participation

Coordinated planning processes and best management practices be developed and implemented by the respective jurisdictions to ensure adequate control of all sources of pollutants.

The Objectives

These waters should be:

- **Free from substances that ... will settle to form putrescent or otherwise objectionable sludge deposits, or that will adversely affect aquatic life or waterfowl**
- **Free from floating materials ... that are unsightly or deleterious**
- **Free from materials and heat ... that alone, or in combination with other materials, will produce color, odor, taste, or other conditions in such a degree as to interfere with beneficial uses.**
- **Free from materials and heat ... that alone, or in combination with other materials, will produce conditions that are toxic or harmful to human, animal, or aquatic life**
- **Free from nutrients ... in amounts that create growths of aquatic life that interfere with beneficial uses.**

Other significant statements:

Article V.1

Water quality standards and other regulatory requirements of the Parties shall be consistent with the achievement of the General and Specific Objectives. Parties shall use their best efforts to ensure that water quality standards and other regulatory requirements of the State and Provincial Governments shall similarly be consistent with the achievement of these Objectives. Flow augmentation shall not be considered as a substitute for adequate treatment to meet water quality standards or other regulatory requirements.

Annex 2.2(a)

Remedial Action Plans and Lakewide Management Plans shall embody a systematic and comprehensive ecosystem approach to restoring and protecting beneficial uses in Areas of Concern or in open lake waters.

Annex 2.2(d)

Point source impact zones exist in the vicinity of some point source discharges. ...the size of such zones shall be reduced to the maximum extent possible by the best available technology ... These zones shall not be acutely toxic to aquatic species, nor shall their recognition be considered a substitute for adequate treatment or control of discharges at their sources.

REMEDIAL ACTION PLANS

Symptoms of Impaired Use [Annex 2.1(c)i-xiv]

- Restrictions on fish and wildlife consumption
- Tainting of fish and wildlife flavor
- Degradation of fish and wildlife populations
- Fish tumors or other deformities
- Bird or animal deformities or reproduction problems
- Degradation of benthos
- Restrictions on dredging activities
- Eutrophication or undesirable algae
- Restrictions on drinking water consumption, or taste and odor problems
- Beach closings
- Degradation of aesthetics
- Added costs to agriculture or industry
- Degradation of phytoplankton and zooplankton populations
- Loss of fish and wildlife habitat

To be included in each Plan: [Annex 2.4(a)]

- A definition and detailed description of the environmental problem in the Area of Concern, including a definition of the beneficial uses that are impaired, the degree of impairment and the geographic extent of such impairment
- A definition of the causes of the use impairment, including a description of all known sources of pollutants involved and an evaluation of other possible sources
- An evaluation of remedial measures in place
- An evaluation of alternative additional measures to restore beneficial uses
- A selection of additional remedial measures to restore beneficial uses and a schedule for their implementation
- An identification of the persons or agencies responsible for implementation of remedial measures
- A process for evaluating remedial measure implementation and effectiveness
- A description of surveillance and monitoring processes to track the effectiveness of remedial measures and the eventual confirmation of the restoration of uses

LAKE ONTARIO TOXIC MANAGEMENT PLAN

The goal of the Lake Ontario Toxic Management plan is a Lake that provides drinking water and fish that are safe for unlimited human consumption, and allows natural reproduction, within the Ecosystem, of the most sensitive native species, such as Bald Eagles, Ospreys, Mink, and Otters.

Objective One

Reduction in Toxic inputs Driven by Existing and Developing Programs

Objective Two

Further Reductions in Toxic Inputs Driven by Special Efforts in Geographic Areas of Concern

Objective Three

Further Reductions in Toxic Inputs Driven by Lake-Wide Analyses of Pollutant Fate

Objective Four

Zero Discharge

THE CLEAN WATER ACT

HOW CITIZENS CAN USE IT

The Clean Water Act, originally enacted in 1972 and amended in 1977 and 1987, establishes the regulatory framework by which the water bodies of the United States are protected. Some important 393 points of the act that citizens may find useful include:

- The goal of the Clean Water Act (CWA) is to eliminate the discharge of pollutants into the waterways of the United States.
- The Clean Water Act requires a permit, which regulates effluent standards and testing protocols, for all point source discharges into water bodies.
- Nationally, the CWA is administered by the U.S. Environmental Protection Agency (EPA). Guidelines for permits are issued through the National Pollution Discharge Elimination System (NPDES).
- In New York, the Department of Environmental Conservation is the agency responsible for issuing permits under the State Pollution Discharge Elimination System (SPDES).
- Permits are issued for a period up to five (5) years.
- To apply for a new permit or renew an existing permit, an industry or municipal sewage treatment facility must complete a detailed application form. Applications for existing permits must be filed 180 days prior to the permit expiration date.
- DEC reviews the application and issues a draft permit. A public notice is issued in the Environmental Notice Bulletin and the local newspapers.
- Draft permits are to be made available for public review. Citizens have 30 days to comment on the permits.
- All public comments must be taken into consideration before a final permit can be issued.
- If enough public interest is generated, a public hearing is held where citizens can argue for revising the draft permit.
- Citizens can challenge a final permit by filing an Article 78 in State Supreme Court.

CITIZENS' RIGHTS UNDER THE CLEAN WATER ACT

YOUR RIGHT TO COMMENT ON DRAFT SPDES PERMITS

Citizens have the right to comment on draft SPDES permits. When a draft permit goes out for public comment, a legal notice must be published in a local newspaper. By contacting the DEC's Albany office at (518) 457-6668 (Circulation), citizens can obtain information on how to receive the Environmental Notice Bulletin which lists all permit applications and public comment period if citizens request more time to comment on a draft permit. Also, citizens can request to be put on the mailing list for specific facilities.

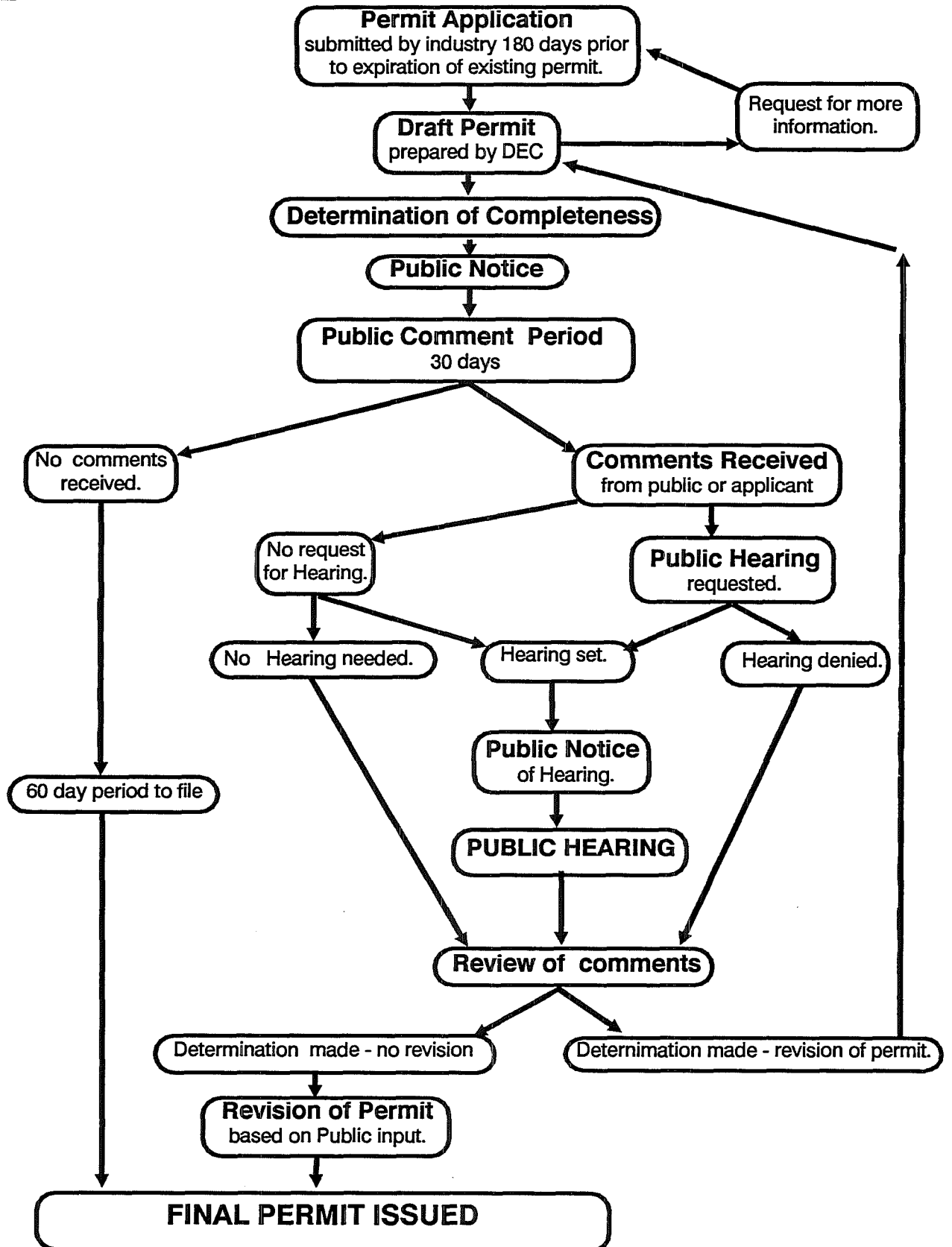
YOUR RIGHT TO HELP PUNISH POLLUTERS

Section 309(g) of the Clean Water Act states, "Before issuing an order assessing a civil penalty under this subsection, the Administrator or Secretary, as the case may be, shall provide issuance of such order. Any person who comments on a proposed assessment of a penalty under this subsection, such person shall have a reasonable opportunity to be heard and present evidence." Often, regulatory enforcement has been feeble, with low fines being levied against some of the worst polluters. Now, Congress has given the people of the U.S. the right to make sure polluters are properly punished. This will serve as a strong deterrent to would-be polluters.

YOUR RIGHT TO SUE POLLUTERS

Section 505 of the CWA enables citizens to "commence a civil action on his own behalf - against any person . . . who is alleged to be in violation of (a) an effluent standard or limitation . . . or (b) an order issued by the [EPA] Administrator or a State with respect to such a standard or limitation." By reviewing the Discharge Monitoring Reports (DMRs) filed at DEC offices, citizens can learn whether permittees are violating the Act and, if necessary, begin to enforce the Act if the DEC has failed to do so.

SPDES Permit Issuance Process



CONTENTS OF SPDES PERMIT APPLICATIONS

All State Pollution Discharge Elimination System (SPDES) permit applications are required to have certain information. Some of the most important information required in a permit application that you should look for include:

- Name and location of facility;
- Nature of the business engaged in at facility, including what is manufactured;
- Manufacturing process and maximum production levels;
- Line drawing (schematic) showing flow of water through facility;
- Exact location, flow rates, flow frequencies, and chemical composition of each discharge associated with facility; and
- Wastewater treatment currently employed for each waste stream.

CONTENTS OF SPDES PERMITS

The issuance of a State Pollution Discharge Elimination System (SPDES) permit authorizes the applicant to discharge specified pollutants into a certain waterway. Each permit contains several conditions that you should look for in analyzing a permit:

Effluent limitations for specified pollutants

Usually expressed in pounds of pollutant discharged per ton of raw material used or product generated, milligrams of pollutant in each liter of water discharged, or (for intermittent discharges) grams released per discharge.

Compliance schedule

Including a timetable for complying with the final effluent limits and other permit conditions.

Monitoring requirements.

Permittees are required to regularly monitor the discharge of each pollutant limited in the permit.

Reporting requirements.

Permittees are required to file reports with the issuing agency that contain:

- Regular discharge monitoring reports (DMRs) - usually monthly, sometimes quarterly;
- Diversion of untreated water streams from treatment facilities;
- Treatment of system malfunctions;
- Discharges of pollutants exceeding effluent limitations;
- Failure to meet compliance deadlines; and
- Planned changes in the plant or its activities that may result in noncompliance with permit requirements or significantly increase the discharge of any toxic chemical not regulated in the permit.

Permit term.

Permits for existing facilities or "new dischargers" are valid for five years.

General information.

Facility name, address, specific location, and body of water into which discharge goes.

PUBLIC NOTIFICATION REQUIREMENTS FOR SPDES PERMITS

(Part 621.5 & 621.6 - Uniform Procedures)

Timing for Notification

Immediately upon determining that an application is complete the parties listed below are required to be notified. (For SPDES permits the Department of Environmental Conservation is required to mail a notice of determination of completeness or incompleteness to the applicant on or before 60 calendar days after receipt of the application.)

Recipients of Notification

DEC shall provide the following notification:

- To the chief executive office of the municipality in which proposed project is to be located.
- To any person who has previously expressed in writing an interest in receiving such notification.
- Place notice in the Environmental Notice Bulletin no more than 10 calendar days after the date of notice to the applicant.

The DEC may provide or require the applicant to provide other reasonable public notice.

Newspaper notification for complete applications is required for SPDES permits on a list agreed to by the DEC and the Environmental Protection Agency (the list is available from DEC). The regulations do not specify the length of time that the notice must be posted in the newspaper.

Other parties to be notified include:

- All agencies that have jurisdiction to fund, approve or are directly undertaking the project.
- Agencies that the DEC is required to consult prior to its determination of completeness (such as historic preservation and coastal zone management).
- EPA and other persons or agencies as required by federally delegated permits.

- Any person on a mailing list developed by the DEC of persons interested in such projects. DEC will publish a notice in the Environmental Notice Bulletin of the opportunity to be on the list.

Content of Notice

- Applicant's name.
- Brief description of the proposed project and its location.
- A list of Department permits and variances for the project for which application has been made, and identification numbers for those applications.
- The name and telephone number of the department representative and, where applicable, of any lead agency representative to contact for further information.
- The status of environmental reviews conducted under the State Environmental Quality Review Act.
- The deadline for submission of written comments on the application including any request for a public hearing.

Comment Period

The deadline for submission of written comments for SPDES permits is 30 days after the date of publication of the notice.

Recommendations

The regulations are vague regarding notification through legal notices in newspapers. Therefore, we would urge citizens that are interested in submitting comments on permits to notify DEC in writing of your interest and request to be placed on the mailing list of citizens interested in these types of projects. Request in the body of the letter that the Department confirm, in writing, that you will be mailed all future notifications of permit applications. You should send your letter certified mail, return receipt requested.

SPDES PERMIT COMPLIANCE

In New York the Department of Environmental Conservation (DEC) is charged with checking the compliance of State Pollution Discharge Elimination System (SPDES) permittees. Sometimes limited resources prevent accurate monitoring of compliance with the conditions of the permit and other actions can be taken to assure compliance. The activities of DEC and others include:

Discharger self-monitoring - permittees are required to analyze their effluents for the pollutants described in their permit and report the results to the DEC on a prescribed schedule.

Inspection - at least once a year, the DEC conducts a detailed, comprehensive inspection of each significant permitted facility.

Sampling - DEC randomly selects facilities to collect discharge samples to determine if permit conditions are being met.

These reports, Discharge Monitoring Reports (DMRs), inspection reports, and sampling reports, are considered public information and are available for public review at the regional office of the DEC or the EPA. Copies may be obtained for a nominal fee.

Enforcement - if a facility continues to violate its permit conditions, formal enforcement action may be taken by the DEC. Some cases may be referred to the New York Attorney General's office or the US-EPA for legal action.

Citizen suits - under the Clean Water Act citizens also have the right to bring legal action against any facility for continued violations of its permit

EFFECTIVE CITIZEN PARTICIPATION

Notification of Permit Issuances/Renewals

- New York State Department of Environmental Conservation must send notification of permit issuance or renewal to anyone who requests it.
- You may request to receive periodic lists of permit applications filed or lists of industries whose permits are up for renewal. BUT this may not indicate when a specific permit is issued due to backlogs of unprocessed applications.
- Contact DEC on a regular basis to inquire about the status of specific permits.

Locating Sources of Relevant Information

- The Clean Water Act and federal regulations guarantee public access to NPDES/SPDES permit applications, draft and final permits, and effluent data in Discharge Monitoring Reports (DMRs), inspection reports, and sampling reports. Legal action can be taken if you are denied access to this information.
- To gain access to these documents, a written Freedom of Information Act (FOIA) request should be made to the DEC or EPA office where the documents are filed. The letter should mention that you are making the request under FOIA, the documents you want to review, and when you plan on being in the office. (See sample Freedom of Information Act (FOIA) request letter.)

Commenting on Permits in Writing or at Hearings

Checklist for analyzing permit applications

- Required chemical test results included
- All outfall and their contents listed
- Chemicals identified in other documents as likely effluent constituents, but not listed on application form
- Comparison of reported concentrations of particular pollutants in the discharges to typical concentrations cited in EPA development documents and other sources; seek explanations for reported values that appear low.

Checklist for analyzing draft permits

- Effluent limitations should cover all toxic pollutants listed in the application. Explanations should be provided for those that are not. Pollutant concentrations must be accompanied by flow limitations to show that polluted wastewater is not diluted before discharge with unpolluted water. Discharge limits should be expressed as pounds per day of pollutant discharged or pounds of pollutant per unit production. Both maximum daily and average monthly limitations should be provided and should cover all outfalls.
- Individual pollutant discharge limitations should reflect limitations cited in proposed or final effluent guidelines or EPA guidance documents for the relevant industrial category.
- Effluent limitations should reflect the Best Available Technology (BAT, i.e., the most effective systems that have been applied to similar waste streams by any industrial facility anywhere) for reducing discharge of toxic and conventional pollutants.
- Bypassing of wastewater treatment facilities should be prohibited, except to prevent loss of life or extensive property damage, and require adequate backup sources of power for treatment facilities.
- Requirement to reduce or halt operations if necessary to prevent violations of permit conditions, even if significant costs are involved.
- Compliance schedule and specific deadlines for all activities.
- Requirements for monitoring all pollutants.

Issues on draft permits not raised in written comments or testimony at public hearings cannot be raised in subsequent legal challenges to or other appeals of a final permit.

Discuss confusing or questionable permit provisions with agency personnel who provided the permit.

Municipal-Industrial Strategy for Abatement

(M.I.S.A)

An Overview

Existing Water Quality Law in Ontario

Jurisdiction over water quality in Canada is governed both by federal and provincial governments. At the federal level, the **Fisheries Act** remains one of the most important statutes to deal with water pollution in the nation. Among other provisions, the Act prohibits the discharge of any "deleterious substance" in water frequented by fish and which may adversely affect the fish, their habitat or the use of the fish by people. The federal government has issued various regulations under the **Fisheries Act** naming deleterious substances and specifying the amounts of those substances that may be discharged. Some of the included sectors are pulp and paper mills, petroleum refineries, chlor-alkali plants, mines, among others. These standards are meant to be a minimum - provinces have the power to set more stringent limits.

Prior to the introduction of the Municipal-Industrial Strategy for Abatement (MISA), many would agree that Ontario laws governing water pollution were inadequate. Until MISA is fully developed and implemented, the primary regulatory tool to control water pollution is the **Ontario Water Resources Act** - a statute that prohibits any person from discharging any substance into a provincial waterway that may impair the quality of the water unless the discharger has been granted a certificate of approval for that discharge. Apart from the approval process, there are no legally enforceable criteria or standards for regulating water quality. Instead, the Ministry of the Environment periodically updates the province's water quality objectives.

For the most part, access to the environmental decision-making process governing water quality is limited. There are no public hearings governing standard-setting processes or permit-issuing processes (with a few exceptions found in the **Ontario Water Resources Act** and the **Environmental Protection Act**). There is no process analogous to the U.S. rule-making process.

MISA is intended to totally revamp Ontario's water pollution control laws by adopting a framework similar to that found in the U.S. **Clean Water Act**.

MISA and Its Components

In June of 1986, the Ontario Ministry of the Environment announced MISA as its primary toxic control initiative for the protection of the province's waters. The stated purpose of this initiative was to virtually eliminate the discharge of persistent toxic substances into provincial waterways.

Initially, MISA's focus was on direct dischargers. However, a control program is being developed with respect to industrial components: the "technology track"; the "water quality track"; and the industrial sewer use controls.

The "Technology Track"

The first major phase of MISA is the development of technology-based effluent limits for all direct discharges to Ontario water ways. All dischargers are divided into nine industrial sectors. These limits would be developed in essentially a two phase process.

- First, regulations were developed to require discharges to monitor their effluents for contaminants associated with the industry or particular municipality. A general monitoring regulation was enacted followed by monitoring regulations for each sector. All monitoring regulations should be completed by the end of 1989.
- Second, following the monitoring phase, regulations will be developed to set effluent limits for both conventional and toxic pollutants. These limit regulations are to be based upon the Best Available Technology Economically Achievable (BATEA). At this time, the Ministry of the Environment has begun to address the varied issues with respect to setting effluent standards, including issues pertaining to defining BATEA, how often such issues should be reviewed and compliance and enforcement issues.

It is anticipated that the first effluent limit regulation will be promulgated in late 1991 with the remaining regulation promulgated by the end of 1992.

The "Water Quality Track"

Once the effluent limit regulation process has been completed, the Ministry of the Environment intends to develop water quality standards. Dischargers will be required to assess their receiving waters to determine the effects of waste loadings. Where adverse environmental effects are still present, the Ministry will then select more stringent effluent limits in order that the dischargers may achieve the desired water quality.

The proposed Sewer Use Control Program

In the autumn of 1986, the Ministry of the Environment released a discussion paper which proposed a strategy to control industrial discharges to sewers. The paper, called "Stopping Water Pollution at Its Source: Controlling Industrial Discharges to Sewers - A Program Proposal" put forth a number of initiatives to control discharges to sewers. Most importantly, it called for:

- Establishment of Discharge Limits: Dischargers to sewers would be categorized into 22 industrial sectors with requirements to pre-treat their wastewater to meet specific sector discharge limits for a range of toxic contaminants. Discharge limits, like with direct dischargers, would be based upon Best Available Technology Economically Available (BATEA).

- **Local Limits:** In certain circumstances, municipalities would be required to impose site-specific limits on conventional pollutants and on toxic contaminants as necessary to protect human health, the operation of a sewage treatment plant and the local environment.
- **Permitting Scheme:** Under the proposed program, individual significant industrial dischargers and each discharger under the BATEA sectors will be required to obtain an effluent discharge permit. The permit would contain the effluent discharge requirements and limitations, self-monitoring requirements, reporting requirements, along with other general and special conditions.
- **Enforcement:** Municipalities are to be delegated the responsibility to enforce all discharge limits and other control measures. As such, it is envisioned that municipalities would develop an enforcement plan and submit it to the ministry for approval.

The Sewer Use Program would be implemented through a number of regulations including a general sewer use program regulation which would provide the framework for all program activities including cataloging indirect dischargers, developing certain control requirements, monitoring and enforcement protocols. Other regulations would then be developed to implement BATEA effluent limits for each of the 22 sectors.

MISA and Public Participation

As noted above, there is no rule-making process in Canada akin to many of those processes found in the United States. At minimum, comment periods must be provided for draft regulations. Under MISA, a number of avenues of public consultation are available.

For the development of technology-based limits, a Joint Technical Committee has been set up for each of the nine MISA sectors. Ministry officials, Environment Canada, industry, and the MISA Advisory Committee are represented on each Joint Technical Committee. The function of these Committees are to resolve the myriad of issues which are encountered in creating MISA's regulations.

The MISA Advisory Committee was established by the Minister of the Environment in 1986 pursuant to an Order in Council under the **Environment Protection Act**. The purpose of the Committee is to review draft regulations, to liaise and work with the technical committees and to provide independent expert advice to the Minister on the content of draft regulations being developed under MISA. The eight member committee is composed of persons from the academic, professional, industrial, and environmental communities. The primary route for public involvement in the MISA process is through a review and comment period. All regulations appear in draft form with a 30-day period for the public to review and comment on the draft regulations. The Ministry of the Environment, however, is not obliged to respond to those comments.

GLOSSARY OF SELECTED TERMS RELATED TO SPDES PERMITS

ACTION LEVEL- a numerical reporting level, accompanied by monitoring requirements, that is part of a SPDES permit. It is a triggering mechanism which, if exceeded, requires the permittee to undertake a more intensive monitoring program to determine if higher than expected levels of a pollutant are being discharged.

AMBIENT WATER QUALITY- composition of water in the environment, as a result of all surrounding contributions of contaminants, as a basis to evaluate its fitness to support different uses.

AVERAGE LIMIT- refers to a limitation on the average amount of discharge of pollutants either in terms of loading or concentration (or both), allowed by the permit. This is calculated by dividing the sum of the measured amounts by the number of days on which measurements were taken. Usually monthly but can also be weekly, 3-day, and quarterly.

BAT (Best Available Technology Economically Achievable)- as defined in the Clean Water Act (Sec. 304(b)(2)) - the degree of effluent reduction attainable through the application of best control measures and practices achievable for classes and categories of point sources (other than publicly owned treatment works), taking into account "the age of equipment and facilities involved, the process employed, the engineering aspect of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and other such factors ..."

BOD (Biological Oxygen Demand)- amount of oxygen dissolved in water required by aquatic organisms to break down organic matter. Wastes with a high BOD may reduce the oxygen level in water below the minimum required to sustain life. BOD refers to a standard laboratory procedure to evaluate the oxygen depletion over a period of five days at a constant temperature.

BIOACCUMULATION- phenomenon by which food chains concentrate chemical contaminants to levels far higher than those present in the surrounding environment, with highest levels being found in predators at the top of the food chain.

BIOMONITORING- the use of a living organism to determine the biological effect(s) of effluent.

COD (Chemical Oxygen Demand)- measures the amount of oxygen a wastewater discharge will deplete from the receiving water.

CSO (Combined Sewer Overflow)- sanitary wastewater is connected to stormwater and or process water. During storm events, a CSO may release untreated effluent into a receiving waterway.

COMPLIANCE- a discharger is meeting permit conditions.

COMPLIANCE SCHEDULE- fixed dates for completion of specific tasks, usually part of an administrative decision, consent order, or SPDES permit, legally binding on both the agency and the discharger.

CONCENTRATION- the amount (weight) of a substance in a given volume of solution. Changing the volume of the solution changes the concentration but does not change the total amount (weight) of that substance.

CONSENT ORDER- a judgement by a court that puts into effect a legally enforceable remedy. Also known as an Order of Consent or Consent Decree.

CONVENTIONAL POLLUTANT- a term which includes nutrients, substances that consume oxygen upon decomposition, materials that produce an oily sludge deposit, and bacteria. Conventional pollutants include total suspended solids, oil and grease, pH, biological oxygen demand, chemical oxygen demand, phosphorous, nitrogen, and fecal coliform bacteria.

CRITERIA- numerical limits of pollutants established to protect specific water uses.

DMR (Discharge Monitoring Report)- form submitted by SPDES discharger to the State that includes the results of their waste water testing. DMRs are self-monitoring, meaning the permittee is responsible for testing its effluent.

DEC (Department of Environmental Conservation, New York State)- state agency charged by law with protection and management of New York's natural resources.

DIRECT DISCHARGE- wastewater from the individual discharger into receiving waters.

DISCHARGE- wastewater dumped or released usually on a regular basis from any source.

DO (Dissolved Oxygen)- the oxygen freely available in water; necessary for aquatic life and the oxidation of organic materials. A high dissolved oxygen level is good for water quality.

EFFLUENT- the wastewater that comes from a treatment plant after completion of the treatment process.

EXCURSION- an exceedance of a permit limitation.

FECAL COLIFORM- bacteria associated with human or animal feces.

GPD- gallons per day

GRAB SAMPLE- a sample that is taken from a waste stream on a one time basis with no regard to the flow in the waste stream and without consideration of time.

INDIRECT DISCHARGE- wastewater from discharger piped to another facility, almost always a municipally owned sewage treatment plant, for treatment before discharge.

KG/DAY- refers to the discharge of particular pollutants limited by the SPDES permit in terms of the number of kilograms that may be discharged on a given day during the month. This is sometimes referred to as "loading" or "weight." Kg/day is an alternative to lbs/day.

LBS/DAY- refers to the discharge of particular pollutants limited by the SPDES permit in terms of the number of pounds that may be discharged on a given day during the month. This is sometimes referred to as "loading" or "weight." Lbs/day is an alternative to kg/day.

LOADINGS- total mass of pollutant to a water body over a specified time, e.g., tons per year of phosphorus.

MG/L- refers to the discharge of particular pollutants of the concentration limited by the SPDES permit in terms of milligrams of the pollutant per unit volume of liquid (liter). This is sometimes referred to as "concentration." One mg/l is approximately 1 ppm (part per million).

MGD- million gallons per day.

MASS- weight of a given substance.

MAXIMUM DAILY LIMIT- a limitation on the amount of discharge of pollutants, either in terms of loading or concentration (or both), allowed by the permit. Also known as the maximum limit or daily maximum limit.

NONCOMPLIANCE- discharger not meeting permit conditions.

NONCONVENTIONAL POLLUTANTS- all pollutants not specifically listed as toxic or conventional that may be discharged.

NONPOINT SOURCE- a diffuse source of water contamination, usually only periodically discharging and generally associated with human activities over a large land surface area, such as the water that runs off urban and agricultural areas during a storm.

OUTFALL- a discharge pipe. Usually an area where the effluent enters the receiving water or another waste stream.

pH- a measure of acidity or alkalinity of water on a scale from 0 to 14; 7 is neutral; low numbers indicate acidic conditions, high numbers alkaline.

ppb- parts per billion; approximately equivalent to micrograms per liter for solutions (ug/l).

ppm- parts per million; approximately equivalent to milligrams per liter of solution (mg/l).

PERMIT LIMIT- usually a numerical amount for a particular substance, specified as the upper or lower bound, within the document allowing a facility to discharge into receiving waters.

PERSISTENT TOXIC SUBSTANCES- any toxic substance with a half-life in water of greater than eight weeks.

PHENOLICS- any of a number of compounds with the basic structure of phenol but with substitutions made onto this structure. Phenolics are produced during the coking of coal, the distillation of wood, the operation of gas works and oil refineries, from human and animal wastes, and the microbiological decomposition of organic matter.

PRETREATMENT- treatment of an industrial waste to remove pollutants before discharge to a municipal sewer system.

POINT SOURCE- a separate and distinct point, such as a wastewater discharge pipe, where pollutants enter a waterway. The term is also used to describe the facility causing the discharge.

PRIMARY TREATMENT- mechanical removal of floating or settleable solids from wastewater.

PRIORITY POLLUTANTS- 129 substances identified by EPA regulation to be limited in SPDES permits when detected in wastewater.

RECEIVING WATER- the water body into which a plant's treated or untreated wastewater is discharged.

RESIDUAL CHLORINE- the chlorine remaining in a wastewater discharge when it goes into the receiving water. Limited amounts of chlorine are used to kill bacteria in wastewater, but excessive amounts will also harm aquatic life.

SPDES (State Pollutant Discharge Elimination System)- the New York State program for discharge permits and the primary system for water pollution control.

SAMPLING- the taking of a portion to characterize the whole. In instances of water pollution, a small amount of wastewater from a facility discharging under a SPDES permit is collected and various laboratory tests are undertaken to determine the presence and amount of various pollutants. Different methods of sampling are required of different dischargers, based on the expected nature of their discharge.

SECONDARY TREATMENT- primary treatment plus bacterial action to remove organic parts of the waste.

STANDARDS enforceable numerical limits based on criteria to control something to acceptable limits. New York State regulations contain standards for ambient water which must reflect levels of substances that must not be exceeded, in order to protect the best uses of a water body for drinking or fishing.

SETTLABLE SOLIDS- any solid matter that settles to the bottom of the water. Causes sedimentation and oxygen depletion and can store toxic substances on the bottom of the receiving water.

TECHNOLOGY BASED LIMIT- a limit that is established by BAT.

TOTAL KJELDAHL NITROGEN (TKN)- refers to the two most important forms of nitrogen found in untreated wastewater -- ammonia and organic nitrogen. Nitrogen is essential for biological life, yet at excessive levels it can degrade aquatic environments.

TOTAL ORGANIC CARBON (TOC)- one of several measures of the organic matter present in water. Common organic compounds include: plant and animal matter; fats, oil and grease; pesticides; and various synthetic compounds.

TOTAL SUSPENDED SOLIDS (TSS)- any solid matter that remains suspended at any level in the water. Makes the water murky, limits sunlight penetration, and makes passage and breathing difficult for fish.

TERTIARY TREATMENT- any advanced treatment process, in addition to secondary treatment, that removes a higher percentage of conventional pollutants or removes nutrients like phosphorus and nitrogen.

TOXIC POLLUTANTS- those substances alone or in a combination, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformations, in such organisms or their offspring. The definition includes, but is not limited to, the 129 priority pollutants.

UG/L- refers to the discharge of particular pollutants of the concentration limited by the SPDES permit in terms of micrograms of the pollutant per unit volume of liquid (liter). Sometimes referred to as "concentration." One ug/l is approximately 1 ppb.

WATER QUALITY STANDARD- a plan for water quality management specifying: the use (recreation, fish and wildlife propagation, drinking water, industrial or agricultural) to be made of the water; criteria to measure and protect these uses; implementation and enforcement plans; and an antidegradation statement to protect existing water quality.

WATER QUALITY CRITERIA- the levels of pollutants that affect the suitability of water for a given use.

WATER-QUALITY BASED LIMIT- a pollution limit based on water quality in the receiving water body.

24-HOUR COMPOSITE SAMPLE- small amounts of effluent collected at regular intervals for a 24-hour period, mixed and analyzed in an attempt to account for variations in wastewater discharge over time and more accurately represent composition of effluent.

RESOURCES

Government Agencies

US Environmental Protection Agency
Region 2, 26 Federal Plaza, New York, NY 10278
(212) 264-2515

New York State Department of Environmental Conservation
50 Wolf Road, Albany, NY 12233
(518) 474-2121

NYS Department of Environmental Conservation
Division of Water, 600 Delaware Avenue, Buffalo, NY 14202
(716) 847-4590

New York State Department of Health
Division of Environmental Health, 584 Delaware Avenue, Buffalo, NY 14202
(716) 847-4500

Environment Canada
Great Lakes Environment Office, 25 St. Clair Avenue, East, Toronto, Ontario M4T 1M2
(416) 973-8632

Ministry of the Environment
Regional Office, West Central Region, 12 Floor, 119 King Street, West,
Hamilton, Ontario L8N 3Z9

Frank Giorno, Project Coordinator, MISA
Ministry of the Environment, 4th Floor, 1 St. Clair Avenue West
Toronto, Ontario M4V 1K6
(416) 323-4648

Private Organizations

Atlantic States Legal Foundation
658 West Onondaga Street, Syracuse, NY 13204
(315) 475-1170

Program for Zero Discharge
Canadian Institute for Environmental Law and Policy, 517 College Street, Suite 400
Toronto, Ontario M6G 4A2
(416) 923-3529

Canadian Institute for Environmental Law and Policy, 243 Queen Street West, 4th Floor 3
Toronto, Ontario M5V 1Z4
(416) 977-2410

Great Lakes United, SUNY College at Buffalo, Cassety Hall, 1300 Elmwood Avenue
Buffalo, NY 14222
(716) 886-0142

International Joint Commission - US, P.O. Box 32869, Detroit, MI 48232-2869

International Joint Commission - Canada, 100 Ouellette Avenue,
Windsor, Ontario N9A 6T3

Libraries

Science and Engineering Library, Capen Hall, SUNY Center Buffalo
Buffalo, NY 14214

Collection Division Office, Butlers Library, SUNY Buffalo, 1300 Elmwood Avenue
Buffalo, NY 14222

McMaster University, Hamilton, Ontario L8S 4L6

USEFUL PUBLICATIONS

Bureau of National Affairs. The Clean Water Act Amendments of 1987. Environmental Reporter, September 4, 1987. This publication describes the Clean Water Act and the 1987 amendments. Provides a useful summary of the Clean Water Act.

Great Lakes United. A Citizens' Guide to the Great Lakes Water Quality Agreement. December 1988. This booklet provides the reader with a summary of the Great Lakes Water Quality Agreement.

International Joint Commission. Great Lakes Water Quality Agreement of 1978. January 1988.

Lake Ontario Toxics Committee. Lake Ontario Toxics Management Plan. February 1989. This report describes sources of toxics in Lake Ontario and reviews toxic control programs.

NYS DEC. Guide to Public Hearings. 1987. This booklet describes the public hearing process and is available at DEC offices.

NYS DEC. Water Quality Regulations Surface Water and Ground water Classifications and Standards. New York State Codes, Rules, and Regulations, Title 6, Chapter X, Parts 700-705. Contains NYS water quality regulations and was last revised in 1986.

Niagara River Toxics Committee. Report of the Niagara River Toxics Committee. October 1984. This report describes sources of toxics in the Niagara River and reviews toxic control programs.

US-Environmental Protection Agency. Permit Writer's Guide to Water Quality-Based Permitting for Toxic Pollutants. July 1987. This booklet provides the reader with procedural recommendations to State and Federal NPDES permit writers on setting water quality-based permit limits for toxic pollutants.

READINGS IN ONTARIO WATER POLLUTION LAW AND ENVIRONMENTAL RIGHTS

Environmental Law and Rights in Ontario

Estrin and Swaigen, Environment on Trial: A Handbook of Ontario Environmental Law (Toronto, 1978).

Swaigen (ed.) Environmental Rights in Canada (Toronto: Butterworths, 1981).

Muldoon, Cross-Border Litigation: Environmental Rights in the Great Lakes Ecosystem (Toronto: Carswell, 1986).

Standard-Setting and Regulatory Reform

Garrod, Valiante, et al. The Regulation of Toxic and Oxidant Air Pollution in North America (Toronto: CCH Canadian, 1986).

Gibson, Control Orders and Industrial Pollution Abatement In Ontario (Toronto: CIELAP, 1983).

AHL, Great Lakes United, Citizen's Guide to St. Marys River - Sources of Contamination - A review of Algoma Steel Corporation, Ltd. Control Order (Buffalo: 1988).

Muldoon and Valiante, Toxic Water Pollution in Canada: Regulatory Principles for Reduction and Elimination (Calgary: Canadian Institute of Resources Law, 1989).

Muldoon and Valiante, Zero Discharge: A Strategy for the Regulation of Toxic Substances in the Great Lakes Basin (Toronto: CIELAP, 1988).

Waste Reduction and General

Shrybman, A Regulatory Agenda for Solid Waste Reduction (Toronto: CIELAP, 1989).

Macdonald and Pickfield, From Pollution Prevention to Waste Reduction: A Comprehensive Hazardous Waste Strategy for Ontario (Toronto: CIELAP, 1989)

Pickfield et al. Control At Source: Regulating Industrial Sewer Use in Ontario (Toronto: CIELAP, 1988).

Great Lakes United, et al. Citizens' Agenda for Restoring Lake Ontario (1988)

RECEIVED JAN 14 1989

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
SARA TITLE III 1987 TOXIC CHEMICAL RELEASE INVENTORY DATA
DATA COMPLETE AS OF DECEMBER 5, 1988

E.I. DUPONT DE NEMOURS & CO. (CHEMICAL &
BUFFALO AVE.
NIAGARA FALLS NY 14302
NIAGARA COUNTY

FACILITY NYS ID #..... 9110107
TOTAL # EPA FORM R SUBMITTED..... 10
FACILITY SIC CODE..... 2869
NAME OF RECEIVING STREAM/WATERBODY. NIAGARA RIVER-FALLS SECT I
POTW USED..... NIAGARA FALLS (C) WASTEWATER TRTMT PLNT

NYS DEC PERMITS SPDES : 000 3328

AIR EMISSIONS : 2911000339

1.2 CAS NUMBER	000071-55-6	000107-21-1	001310-73-2	007647-01-0
1.3 CHEMICAL NAME	1,1,1-TRICHLORO-ETHANE	ETHYLENE GLYCOL	SODIUM HYDROXIDE	HYDROCHLORIC ACID
RELEASES TO THE ENVIRONMENT	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR
5.1 FUGITIVE OR NON POINT AIR EMISSIONS.....	12,000	1,900	0	150
5.2 STACK OR POINT AIR EMISSIONS.....	0	1	0	70
5.3 DISCHARGES TO WATER 1.....	0	0	24	0
2.....	0	0	0	0
3.....	N/A	N/A	N/A	N/A
5.4 UNDERGROUND INJECTION.....	N/A	N/A	N/A	N/A
5.5 RELEASES TO LAND 1.....	N/A	N/A	N/A	N/A
2.....	N/A	N/A	N/A	N/A
3.....	N/A	N/A	N/A	N/A
TRANSFERS IN WASTE TO OFF SITE LOCATIONS	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR
6.1 DISCHARGE TO POTW.....	0	150,000	20,300	1
6.2 OTHER OFF-SITE LOCATIONS.....	300	N/A	590	7,040
6.3	300	N/A	N/A	N/A
6.4	N/A	N/A	N/A	N/A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF WATER
 SARA TITLE III 1987 TOXIC CHEMICAL RELEASE INVENTORY DATA
 DATA COMPLETE AS OF DECEMBER 5, 1988

E.I. DUPONT DE NEMOURS & CO. (CHEMICAL &
 BUFFALO AVE.
 NIAGARA FALLS NY 14302
 NIAGARA COUNTY

FACILITY NYS ID #..... 9110107
 TOTAL # EPA FORM R SUBMITTED..... 10
 FACILITY SIC CODE..... 2869
 NAME OF RECEIVING STREAM/WATERBODY. NIAGARA RIVER-FALLS SECTI
 POTW USED..... NIAGARA FALLS (C) WASTEWATER TRTMT PLNT

NYS DEC PERMITS SPOES : 000 3328

AIR EMISSIONS : 2911000339

1.2 CAS NUMBER	007664-39-3	007664-93-9	007697-37-2	007782-50-5
1.3 CHEMICAL NAME	HYDROFLUORIC ACID (HYDROGEN FL	SULFURIC ACID	NITRIC ACID	CHLORINE
RELEASES TO THE ENVIRONMENT	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR
5.1 FUGITIVE OR NON POINT AIR EMISSIONS.....	8	0	160	1 - 499
5.2 STACK OR POINT AIR EMISSIONS.....	310	1	870	35,000
5.3 DISCHARGES TO WATER 1.....	1	20	0	120
2.....	0	0	0	0
3.....	N/A	N/A	N/A	N/A
5.4 UNDERGROUND INJECTION.....	N/A	N/A	N/A	N/A
5.5 RELEASES TO LAND 1.....	N/A	N/A	N/A	N/A
2.....	N/A	N/A	N/A	N/A
3.....	N/A	N/A	N/A	N/A
TRANSFERS IN WASTE TO OFF SITE LOCATIONS	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR
6.1 DISCHARGE TO POTW.....	4	10	0	280
6.2 OTHER OFF-SITE LOCATIONS.....	1	1	N/A	N/A
6.3	1,100	5,100	N/A	N/A
6.4	N/A	N/A	N/A	N/A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF WATER
 SARA TITLE III 1987 TOXIC CHEMICAL RELEASE INVENTORY DATA
 DATA COMPLETE AS OF DECEMBER 5, 1988

E.I. DUPONT DE NEMOURS & CO. (CHEMICAL &
 BUFFALO AVE.
 NIAGARA FALLS NY 14302
 NIAGARA COUNTY

FACILITY NYS ID #..... 9110107
 TOTAL # EPA FORM R SUBMITTED..... 10
 FACILITY SIC CODE..... 2869
 NAME OF RECEIVING STREAM/WATERBODY. NIAGARA RIVER-FALLS SECTI
 POTW USED..... NIAGARA FALLS (C) WASTEWATER TRTMT PLNT

NYS DEC PERMITS SPDES : 000 3328

AIR EMISSIONS : 2911000339

1.2 CAS NUMBER	M11000-00-0	M998AR-IU-M	- -	- -
1.3 CHEMICAL NAME	SILVER COMPOUNDS	BIARIUM COMPOUNDS		
RELEASES TO THE ENVIRONMENT	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR
5.1 FUGITIVE OR NON POINT AIR EMISSIONS.....	0	0		
5.2 STACK OR POINT AIR EMISSIONS.....	79	3,500		
5.3 DISCHARGES TO WATER 1.....	0	0		
2.....	0	0		
3.....	N/A	N/A		
5.4 UNDERGROUND INJECTION.....	N/A	N/A		
5.5 RELEASES TO LAND 1.....	N/A	N/A		
2.....	N/A	N/A		
3.....	N/A	N/A		
TRANSFERS IN WASTE TO OFF SITE LOCATIONS	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR	POUNDS PER YEAR
6.1 DISCHARGE TO POTW.....	810	130,000		
6.2 OTHER OFF-SITE LOCATIONS.....	N/A	45,000		
6.3	N/A	340,000		
6.4	N/A	170		

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
NAME RISON RADIATOR DIV
ADDRESS RISON RADIATOR DIV
 100 R MOUNTAIN RD
 LOCKPORT NY 14094

NATIONAL POLLUTANT ABatement ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
 (2-16) (17-19)
 446958 PERMIT NUMBER 010 DISCHARGE NUMBER

F - FINAL
 COMBINED DISCHARGE
RECEIVED
 OMB No. 2040-0004
 Approval expires 9-30-85
FEB 12 1987

FACILITY
LOCATION
 ATTN: L.F. CHAMBERLIN, SUPT ENV ACT

MONITORING PERIOD
 FROM YEAR MO DAY TO YEAR MO DAY
 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

Bureau of Wastewater Facilities Operations
 MAJOR (SUBR 99) 9-MIA
 NOTE: Read instructions before completing this form. ER

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (3 Card Only) (46-53) (54-61)			QUALITY OR CONCENTRATION (4 Card Only) (38-45) (46-53) (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 1 0		*****	*****		*****	*****	56	0	WEEKLY	GRAB
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	*****	*****	90.0 INST MX		WEEKLY	GRAB
300, 5-DAY (24 DEG. C) 00311 1 0		*****	*****		*****	56	67		WEEKLY	COMP24
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	*****	REPORT DAILY AV	REPORT DAILY MX		WEEKLY	COMP24
PH		*****	*****		6.5	*****	8.2	0/0	WEEKLY	GRAB
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	6.0 MINIMUM	*****	9.50 MAXIMUM		WEEKLY	GRAB
SULFATE, TOTAL SULFEND. 0 00731 1 0		*****	*****		*****	8	9	0	WEEKLY	COMP24
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	*****	REPORT	20.00 DAILY MX		WEEKLY	COMP24
NITRATE, KJELDAHL TOTAL (S N) 00635 1 0		*****	*****		*****	7	7		WEEKLY	COMP24
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	*****	REPORT DAILY AV	REPORT DAILY MX		WEEKLY	COMP24
FLUORIDE, TOTAL (AS F) 00911 1 0		*****	*****		*****	*****	20.6 violation	2	WEEKLY	COMP24
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	*****	*****	15.00 DAILY MX		WEEKLY	COMP24
CHROMIUM, HEXAVALENT (AS CR) 01112 1 0		*****	*****		*****	*****	0.024	0	WEEKLY	COMP24
EFFLUENT GROSS VALU	PERMIT REQUIREMENT	*****	*****	***	*****	*****	0.10 DAILY MX		WEEKLY	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 T.B. Guthrie - General Manufacturing Manager
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

T.B. Guthrie
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
 L. Chamberlin
 716 439-2192
DATE
 87 02 09

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
 As-analyzed fluoride concentrations: 1/6 - 4.7; 1/13 - 9.6; 1/20 - 17.5; 1/27 - 20.6 mg/l. Excursions continuation of problems in achieving removal to permit limit level. Preliminary engineering study submitted.

RECEIVED
 APPROVED
 OMB No. 2040-0004
 Approval Expires 9-30-85
 FEB 12 1987

TITLE: E/AD S (Inc)
 Facility Name/Location if different:
NAME HARRISON RADIATOR DIV
ADDRESS HARRISON RADIATOR DIV
 20 UPPER MOUNTAIN RD
 LOCKPORT NY 14094
FACILITY
LOCATION
 ATTN: L.J. CHAMBERLIN, SUPT ENV ACT

DISCHARGE MONITORING REPORT (DMR)
 (17-19)
 PERMIT NUMBER: NY100558
 DISCHARGE NUMBER: 00110

F - FINAL
 COMBINED DISCHARGE

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	87	1	01		87	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

MAJOR (SUBR 09) 9-NIA
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (54-61)			QUALITY OR CONCENTRATION (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
CHROMIUM, TOTAL (CS CR) 01074 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	0.13	0	WEEKLY	COMP24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	1.00 DAILY MX MG/L		WEEKLY	COMP24
COPPER, TOTAL (CS CU) 01042 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	0.06 0.08	0	WEEKLY	COMP 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	0.40 DAILY AV DAILY MX MG/L		WEEKLY	COMP24
IRON, TOTAL (CS FE) 01045 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	0.03	0	WEEKLY	COMP 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	1.00 DAILY MX MG/L		WEEKLY	COMP24
LEAD, TOTAL (CS PB) 01041 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	0.17	0	WEEKLY	COMP 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	0.50 DAILY MX MG/L		WEEKLY	COMP24
ZINC, TOTAL (CS ZN) 01092 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	0.37 0.40	0	WEEKLY	COMP24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	0.50 DAILY AV DAILY MX MG/L		WEEKLY	COMP24
ALUMINUM, TOTAL (CS AL) 01105 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	1.2 1.00	1	WEEKLY	COMP 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	1.00 DAILY MX MG/L		WEEKLY	COMP24
PH CLICS, TOTAL RECOVERABLE 3274 1 0 EFFLUENT GROSS VALU		*****	*****	*****	*****	*****	0.068	0	WEEKLY	COMP 24
	PERMIT REQUIREMENT	*****	*****	*****	*****	*****	0.30 DAILY MX MG/L		WEEKLY	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
 T.B. Guthrie - General
 Manufacturing Manager
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

William M. ...
 for T.B. GUTHRIE
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: 716 439-2192
 DATE: 87 02 09
 AREA CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) As-analyzed aluminum concentrations: 1/6 - 0.8; 1/13 - 0.7; 1/20 - 1.2; 1/27 - 0.9 mg/l. Retention time in treatment system reduced when one clarifier taken off steam to permit change of polymer used.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)
 NAME MERRISON RADIATOR DIV
 ADDRESS MERRISON RADIATOR DIV
200 UPPER MOUNTAIN RD
LOCKPORT NY 14094

FACILITY _____
 LOCATION _____
 ATTN: L.E. CHAMBERLIN, SUPT ENV ACT

NATH: _____
 LARGE MONITORING REPORT (DMR) (2-16) (17-19)
 0558 7010
 PERMIT NUMBER DISCHARGE NUMBER

F - FINAL
 COMBINED DISCHARGE
 RECEIVED
 FEB 12 1987
 Form Approved OMB No. 2040-0004 Expires 9-30-85
 Bureau of _____

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	87	1	31		87	1	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

MAJOR (SUBR #9) _____
 NOTE: Read instructions before completing this form.

PARAMETER (32-37)	SAMPLE MEASUREMENT	QUANTITY OR LOADING (3 Card Only) (46-53) (54-61)			QUALITY OR CONCENTRATION (4 Card Only) (38-45) (46-53) (54-61)			NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50000 1 0 EFFLUENT GROSS VALUE	*****	3.48			*****	*****	*****	0	WEEKLY	INSTAN
	PERMIT REQUIREMENT	*****	7.87 DAILY MX	MGD	*****	*****	*****		WEEKLY	INSTAN
AMMONIA & AMMONIUM-TOTAL 8220 1 0 EFFLUENT GROSS VALUE	*****				*****	6.54	7.02	0	WEEKLY	COMP24
	PERMIT REQUIREMENT	*****	*****	*****	*****	REPORT	10.00 DAILY MX	MG/L	WEEKLY	COMP24
AMMONIA, UN-IONIZED	*****	*****			*****	*****	0.06	0	WEEKLY	COMP24
	PERMIT REQUIREMENT	*****	*****		*****	*****	0.28 DAILY MX	MG/L	WEEKLY	COMP24
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									
	SAMPLE MEASUREMENT									
	PERMIT REQUIREMENT									

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
T.B. Guthrie - General Manufacturing Manager
 TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HERIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT, SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)

William A. Hurd
 for T. B. GUTHRIE
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE
L. Chamberlin
 716 | 439-2192
 AREA CODE NUMBER
 DATE
 87 | 02 | 09
 YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

STATE OF UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY (NPDES)
 DISCHARGE MONITORING REPORT
 (2-16) 1987
 NY2000558 PERMIT NUMBER
 10 DISCHARGE NUMBER

F - FINAL
 COMBINED DISCHARGE

FEB 12 1987

Bureau of Water Quality

MAJOR (SUBR 19) 9-10-85
 NOTE: Read instructions before completing this form.

Facility Name/Location if different: HERRISON RADIATOR DIV
 NAME: HERRISON RADIATOR DIV
 ADDRESS: 200 UPPER MOUNTAIN RD
 LOCKPORT NY 14094
 FACILITY: _____
 LOCATION: _____
 ATTN: L.C. CHAMBERLIN, SOFT ENV ACT

MONITORING PERIOD							
FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	87	01	01		87	01	31
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

SLUDGE DISPOSAL REPORT (As required by Permit Condition 13)

A) SOURCE OF MATERIALS

Precipitated solids resulting from lime treatment of process wastewater.

B) APPROXIMATE TOTAL MONTHLY WEIGHT & VOLUME AS DISPOSED

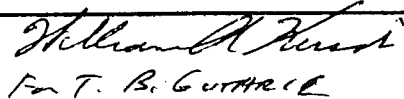
380 tons 855 cubic yards

C) REMOVAL METHOD & TRANSPORTATION

Liquid sludge is pumped from the bottom of clarifiers into sludge thickener tanks. Thickened sludge is pressure filtered to a solids content of approximately 40% by weight and transported to the final disposal site by Jack Gray Transport, Inc. in covered 45 cubic yard dump trailers.

D) FINAL DISPOSAL SITE

Sludge is beneficially recycled for metal recovery at New Jersey Zinc Co. in Palmerton, PA.

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER T.B. Guthrie - General Manufacturing Manager	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to \$10,000 and/or maximum imprisonment of between 6 months and 5 years.)	 For T. B. GUTHRIE	TELEPHONE		DATE		
			716	439-2192	87	02	09
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

State Pollutant Discharge Elimination System (SPDES)

DISCHARGE PERMIT

Special Conditions (Part 1)

RECEIVED JAN 25 1985

Industrial Code 2869
Discharge Class (CL) 03
Toxic Class (TX) 04
Major D.B. 01
Sub D.B. 01

Facility ID Number: NY-000-3328
UPA Tracking Number: 90-86-0780
Effective Date (EDP): April 1, 1983
Expiration Date (ExDP): April 1, 1988
Modification Date(s): 9/27/83, 10/18/83, 4/4/84, 10/7/85
Attachment(s): General Conditions (Part II, 12/85)
Modification Date(s): 1/8/86, 9/24/86

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. §1251 et. seq.) (hereinafter referred to as "the Act").

Attn: Mr. Richard Knowles

Permittee Name: E.I. Du Pont de Nemours & Co., Incorporated
Street: 1007 Market Street
City: Wilmington State: Delaware Zip Code: 19898

is authorized to discharge from the facility described below:

Facility Name: E.I. Du Pont de Nemours & Co., Incorporated
Location (C.T.V): Niagara Falls (C) County: Niagara
Mailing Address (Street): P.O. Box 787
Mailing Address (City) Niagara Falls State: New York Zip Code: 14302

from Outfall No. 004 at: Latitude 43° 04' 45" & Longitude 79° 01' 35"

into receiving waters known as: Niagara River Class A - Special

and: (list other Outfalls, Receiving Waters & Water Classification) International Boundary Waters

- 001 - To Niagara River
005 - To Niagara River
006 To Gill Creek, class D
007 To Gill Creek, class D

in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit.
This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed, or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal as prescribed by Sections 17-0803 and 17-0804 of the Environmental Conservation Law and Parts 621, 752, and 755 of the Departments' rules and regulations.

PERMIT ADMINISTRATOR Paul D. Eismann, DATE ISSUED 9/24/86 ADDRESS 600 Delaware Avenue, Buffalo, New York 14202-1073
Alternate Regional Permit Administrator

Distribution: Region 9 Water Dr. Baker, EPA Mr. R. Diamond, DuPont
R. Hannaford, BWFD Dr. Spear, EPA ENCRPB
Niagara Co. Health Dept.

Handwritten signature of Paul D. Eismann
SIGNATURE

Final EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the Period Beginning (EDPM) October 24, 1986
 and lasting until April 1, 1988

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	GROSS * Discharge Limitations		Units	Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type
<u>001 Non-Contact Cooling Water, Salt Scrubber Water:</u>					
Flow	Monitor	Monitor	MGD	Continuous	Meter
Temperature	Monitor	90	Deg.F	2 per month	Instantaneous
pH (Range)	(6.0 to 9.0)		SU	2 per month	Grab
Barium, Total	100	200	lbs/d	2 per month	24-hr. comp.
Solids, Suspended	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Solids, Dissolved	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Oil and Grease	Monitor	Monitor	mg/l	2 per month	Grab
COD	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
<u>004 Treated Waste Acid, Contact and Non-contact Cooling Water, Stormwater</u>					
Flow	Monitor	Monitor	MGD	Continuous	Meter
Temperature	Monitor	90	Deg.F	2 per month	Instantaneous
pH (Range)	(6.0 to 9.0)		SU	2 per month	Grab
Solids, Suspended	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Solids, Dissolved	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Oil and Grease	Monitor	Monitor	mg/l	Weekly	Grab
COD (Net)	6000	9000	lbs/d	3 per week	24-hr. comp.
Fluoride, Total	250	375	lbs/d	3 per week	24-hr. comp.
<u>005 Boiler House Non-contact Cooling Water, Stormwater:</u>					
Flow	Monitor	Monitor	MGD	Continuous	Meter
Temperature	Monitor	90	Deg.F	2 per month	Instantaneous
pH (Range)	(6.0 to 9.0)		SU	2 per month	Grab
Solids, Suspended	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Oil and Grease	Monitor	Monitor	mg/l	Weekly	Grab
COD	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
1,1-Dichloroethylene	Monitor	0.5	lbs/d	Monthly	Grab
<u>006 Non-Contact Cooling Water, Stormwater:</u>					
Flow	Monitor	Monitor	MGD	Continuous	Meter
Temperature	Monitor	90	Deg.F	2 per month	Instantaneous
pH (Range)	(6.0 to 9.0)		SU	2 per month	Grab
Solids, Suspended	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Oil and Grease	Monitor	Monitor	mg/l	Weekly	Grab
COD	Monitor	Monitor	mg/l	2 per month	24-hr. comp.
Chlorine, Total Residual	Monitor	Monitor	mg/l	2 per month	Grab

* unless otherwise stated

Final EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the Period Beginning (EDPM) October 24, 1986

and lasting until April 1, 1988

the discharges from the permitted facility shall be limited and monitored by the permittee as specified below:

Outfall Number & Effluent Parameter	Gross* Discharge Limitations		Units	Minimum Monitoring Requirements	
	Daily Avg.	Daily Max.		Measurement Frequency	Sample Type
<u>Sum of Outfalls 001E, 001W, 004, 005, 006, and 007:</u>					
#Solids, Suspended	1500	3000	lb/d	2 per month	Calculated(a)
COD (Net)	6000	9000	lb/d	2 per month	Calculated(a)
Chloroform	9.5	Monitor	lb/d	2 per month	Calculated(a)
Phenolics, Total	1.95	Monitor	lb/d	2 per month	Calculated(a)
Zinc, Total	Monitor	36.5	lb/d	Monthly	Calculated(a)

#This limit on Suspended Solids is a NET limit, and is applicable in dry weather conditions only.

Sum of Outfalls 001, 005, and 006:

Oil and Grease (Net)	300	600	lb/d	Weekly	Grab
----------------------	-----	-----	------	--------	------

007 Non-Contact Cooling Water:

Flow	Monitor	Monitor	MGD	Continuous	Recorder
Temperature	Monitor	90	Deg.F	2 per month	Instantaneous
pH (Range)	(6.0 to 9.0)		SU	2 per month	Grab
Chlorine, Total Residual	Monitor	0.05	mg/l	2 per month	Grab
Solids, Total Suspended	Monitor	Monitor	mg/l	2 per month	24-hr. comp.

*Limits and Monitoring are Gross, unless otherwise stated

Note: (Water Treatment Chemicals):

The permit application must list all the corrosion/scale inhibitors or biocidal-type compounds used by the permittee. If the use of new boiler/cooling water additives is intended, application must be made prior to use.

Note (Outfall 001):

The effluent limits for pH and temperature, and the monitoring requirements for Flow, Suspended Solids, Dissolved Solids, Oil and Grease, and COD at outfall 001 shall apply to outfall 001E and 001W individually; the effluent limits on Barium shall apply to the arithmetic sum of the Barium loadings at 001E and 001W.

(a) The "Sum of Outfalls" loadings shall be calculated as the arithmetic sum of the loading at 001E, 001W, 004, 005, 006, and 007; 24-hour composite samples shall be taken at each of these outfalls for Suspended Solids, COD, Total Phenolics, and Zinc; Grab samples shall be taken at each of these outfalls for Chloroform.

ACTION LEVEL REQUIREMENTS

The parameters listed below have been reported present in the discharge but at levels that currently do not require water-quality or technology-based limits. Action levels have been established which if exceeded will result in re-consideration of Water Quality and Technology based limits.

Routine action level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted.

If any of the action levels is exceeded, the permittee shall undertake a short-term, high-intensity monitoring program for this parameter. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three operating days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the action level was first exceeded. Results may be appended to a DMR or transmitted under separate cover to the same addresses. If levels higher than the action levels are confirmed, the result shall constitute a revised application and the permit shall be reopened for consideration of revised action levels or effluent limits.

The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

Outfall Number and Effluent Parameter	Net ⁽¹⁾ Action Level	Units	Minimum Monitoring Requirements	
			Measurement Frequency	Sample Type
<u>001E</u>				
Dichlorodifluoromethane	0.5	lbs/d	Semiannual	24-hr. Composite
Trichlorofluoromethane	0.1	lbs/d	Semiannual	24-hr. Composite
Cyanide, Total	0.5	lbs/d	Semiannual	24-hr. Composite
Arsenic, Total	0.4	lbs/d	Semiannual	24-hr. Composite
Mercury, Total	0.001	mg/l	Semiannual	24-hr. Composite
Copper, Total	0.1	lbs/d	Semiannual	24-hr. Composite
Lead, Total	0.1	lbs/d	Semiannual	24-hr. Composite
Selenium, Total	0.1	lbs/d	Semiannual	24-hr. Composite
bis(2-ethylhexyl)Phthalate	0.5	lbs/d	Semiannual	24-hr. Composite
<u>001W</u>				
Cyanide, Total	0.5	lbs/d	Semiannual	24-hr. Composite
Arsenic, Total	0.4	lbs/d	Semiannual	24-hr. Composite
Mercury, Total	0.001	mg/l	Semiannual	24-hr. Composite
Lead, Total	0.1	lbs/d	Semiannual	24-hr. Composite
Selenium, Total	0.2	lbs/d	Semiannual	24-hr. Composite
bis(2-ethylhexyl)Phthalate	0.5	lbs/d	Semiannual	24-hr. Composite

(1) To calculate net values, intake samples shall be taken from the Niagara River prior to entering the raw water intake pipe

ACTION LEVEL REQUIREMENTS

The parameters listed below have been reported present in the discharge but at levels that currently do not require water-quality or technology-based limits. Action levels have been established which if exceeded will result in re-consideration of Water Quality and Technology based limits.

Routine action level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted.

If any of the action levels is exceeded, the permittee shall undertake a short-term, high-intensity monitoring program for this parameter. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three operating days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the action level was first exceeded. Results may be appended to a DMR or transmitted under separate cover to the same addresses. If levels higher than the action levels are confirmed, the result shall constitute a revised application and the permit shall be reopened for consideration of revised action levels or effluent limits.

The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

Outfall Number and Effluent Parameter	Net Action Level	Units	Minimum Monitoring Requirements	
			Measurement Frequency	Sample Type
<u>004</u>				
Benzene	0.1	lbs/d	Semiannual	24-hr. Composite
Cyanide, Total	1.0	lbs/d	Semiannual	24-hr. Composite
Copper, Total	1.0	lbs/d	Semiannual	24-hr. Composite
Mercury, Total	0.001	mg/l	Semiannual	24-hr. Composite
Arsenic, Total	0.5	lbs/d	Semiannual	24-hr. Composite
bis(2-ethylhexyl)Phthalate	1.0	lbs/d	Semiannual	24-hr. Composite
<u>005</u>				
Dibromochloromethane	0.01	lbs/d	Semiannual	24-hr. Composite
Cyanide, Total	0.1	lbs/d	Semiannual	24-hr. Composite
Copper, Total	0.1	lbs/d	Semiannual	24-hr. Composite
bis(2-ethylhexyl)Phthalate	0.1	lbs/d	Semiannual	24-hr. Composite
<u>006</u>				
Copper, Total	0.25	lbs/d	Semiannual	24-hr. Composite
Lead, Total	0.25	lbs/d	Semiannual	24-hr. Composite
Selenium, Total	0.1	lbs/d	Semiannual	24-hr. Composite
Mercury, Total	0.001	mg/l	Semiannual	24-hr. Composite

ACTION LEVEL REQUIREMENTS

The parameters listed below have been reported present in the discharge but at levels that currently do not require water-quality or technology-based limits. Action levels have been established which if exceeded will result in re-consideration of Water Quality and Technology based limits.

Routine action level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted.

If any of the action levels is exceeded, the permittee shall undertake a short-term, high-intensity monitoring program for this parameter. Samples identical to those required for routine monitoring purposes shall be taken on each of at least three operating days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the action level was first exceeded. Results may be appended to a DMR or transmitted under separate cover to the same addresses. If levels higher than the action levels are confirmed, the result shall constitute a revised application and the permit shall be reopened for consideration of revised action levels or effluent limits.

The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

Outfall Number and Effluent Parameter	Net Action Level	Units	Minimum Monitoring Requirements	
			Measurement Frequency	Sample Type
<u>Sum of Outfalls 001E, 001W, 004, 005, 006, and 007:</u>				
Tetrachloroethylene,	0.5	lb/d	Monthly	Calculated(a)
1,1,2,2-tetrachloroethane	0.5	lb/d	Monthly	Calculated(a)
1,2(trans)-Dichloroethylene	0.5	lb/d	Monthly	Calculated(a)
1,1,1-Trichloroethane	0.05	lb/d	Monthly	Calculated(a)
Carbon Tetrachloride	0.05	lb/d	Monthly	Calculated(a)
Trichloroethylene	1.0	lb/d	Monthly	Calculated(a)
Methylene Chloride	0.5	lb/d	Monthly	Calculated(a)
Bromodichloromethane	0.5	lb/d	Monthly	Calculated(a)
1,2-Dichloroethane	1.0	lb/d	Monthly	Calculated(a)
Chloroethane	0.5	lb/d	Monthly	Calculated(a)

(a) The "Sum of Outfalls" loadings shall be calculated as the arithmetic sum of the loadings at 001E, 001W, 004, 005, 006, and 007, using grab samples at each outfall.

SPECIAL REPORTING REQUIREMENTS:

The permittee shall monitor for all Volatile and Base/Neutral Fraction Priority Pollutants, and for Priority Pollutant Metals, Cyanide (Total), and Phenolics (Total), on a semi-annual basis using simultaneous 24-hour composite* samples at each outfall as well as the river water intake. The results shall be tabulated and submitted to the Department as an addendum to the pre-printed Discharge Monitoring Report (DMR).

In addition to the above monitoring and reporting requirements, the permittee shall conduct sampling and analysis for all 129 priority pollutants at each outfall, on three different 24-hour periods. Grab samples shall be required for all volatile priority pollutants, and 24-hour composites shall be used for all other Priority Pollutants. The results of these samples and analyses shall be submitted to this Department, as required in the Schedule of Compliance, within three months of the effective date of this permit.

The permittee shall also conduct monthly samplings at each SPDES outfall, using grab samples, which shall be analyzed for all purgeable Halocarbons and purgeable aromatics (EPA method 601 and 602). Based on the results of the analyses over the first twelve months of the effective term of this permit, this routine sampling for these priority pollutants may be discontinued by determination of the Department. The individual analytical results of these analyses shall be submitted monthly as an addendum to the pre-printed DMR summary.

The permittee shall develop and submit to this Department for approval, an analytical method for TETRAHYDROFURAN, capable of detecting this compound in the parts-per-million range, within two months of the effective date of this permit. An appropriate quality assurance program must be included. Also the permittee shall, as part of the BMP plan for outfall 004, develop and submit to this Department for approval, a program for sampling and analysis for Tetrahydrofuran at outfall 004, within two months of the effective date of this permit.

* All 24-hour composite samples for volatile priority pollutants must be taken using a series of grab samples, at least one for each three-hour period over the course of the day (i.e., a minimum of eight discrete grab samples over the 24-hour period). These discrete grab samples from a given outfall on a given day may be composited in the laboratory before analysis according to procedures approved by the New York State Department of Health, Division of Laboratories and research; Field-compositing for volatile priority pollutants shall not be practiced.

Additional Monitoring Requirements: The permittee shall submit with each Discharge Monitoring Report the results of monthly sampling and analysis of the dilute NIACHLOR brine that will be returned to the brine field for the following parameters: pH, temperature, conductivity, total hardness as CaCO₃, calcium, magnesium, potassium, sodium, chlorides, total dissolved solids.

In addition, the January, April, July, and October Discharge Monitoring Reports shall provide results of a quarterly analysis for all EPA priority pollutants (40 CFR 122-Appendix D). The sample type may be grab or composite.

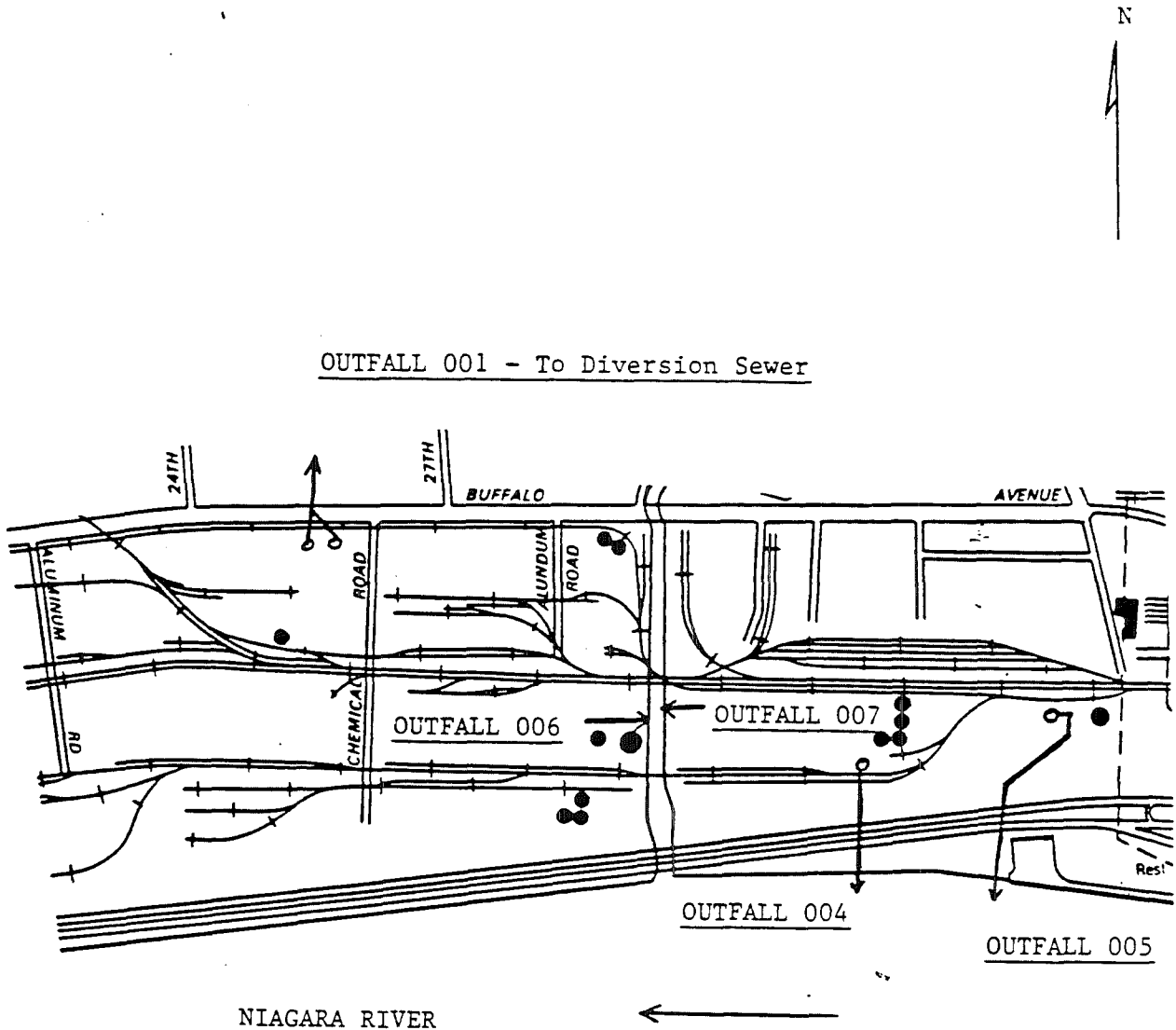
Definition of Daily Average and Daily Maximum

The daily average discharge is the total discharge by weight or in other appropriate units as specified herein, during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges in appropriate units as specified herein divided by the number of days during the calendar month when the measurements were made.

The daily maximum discharge means the total discharge by weight or in other appropriate units as specified herein, during any calendar day.

Monitoring Locations

Permittee shall take samples and measurements to meet the monitoring requirements at the location(s) indicated below: (Show locations of outfalls with sketch or flow diagram as appropriate).



SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES

1. The permittee shall develop and implement a Best Management Practices (BMP) plan to prevent, or minimize the potential for, release of significant amounts of toxic or hazardous pollutants to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2. The permittee shall review all facility components or systems (including material storage areas; in-plant transfer, process and material handling areas; loading and unloading operations; and sludge and waste disposal areas) where toxic or hazardous pollutants are used, manufactured, stored, or handled to evaluate the potential for the release of significant amounts of such pollutants to the waters of the State. In performing such evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, the effects of factors such as the probability of equipment failure or improper operation, the effects of natural phenomena such as freezing temperatures and precipitation, and the facility's history of spills and leaks. For Hazardous pollutants, the relative toxicity of the pollutant shall be considered in determining the significance of potential releases.

The review shall address all the substances present at the facility that are listed as toxic pollutants under Section 307(a)(1) of the Clean Water Act or as hazardous pollutants under Section 311 of the Act or that are identified as Chemicals of Concern, by the Industrial Chemical Survey. The review shall specifically address the following substances:

(see attached Table I)

3. Whenever the potential for a significant release of toxic or hazardous pollutants to State waters is determined to be present, the permittee shall identify Best Management Practices that have been established to minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider typical industry practices such as spill reporting procedures, risk identification and assessment, employee training, inspections and records, preventive maintenance, good housekeeping, materials compatibility and security. In addition, the permittee may consider structural measures (such as secondary containment devices) where appropriate.

4. The BMP plan shall be documented in narrative form and shall include any necessary plot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the BMP plan shall be maintained at the facility and shall be available to the Director upon request.

5. The BMP plan shall be modified whenever changes at the facility materially increase the potential for significant releases of toxic or hazardous pollutants or where actual releases indicate the plan is inadequate.

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES (continued):

6. The BMP Plan shall address contingency plans to identify and control the source of all Priority Pollutants, Hazardous Substances, and Substances of Concern present in significant quantities in the discharges. If the source of significant contamination is found or believed to be groundwater infiltration, measures shall be taken to prevent or minimize such contributions from contaminated groundwater infiltration.

7. For the purposes of this Best Management Practices Program, any discharge of a Priority Pollutant in excess of the "Action Levels" contained in the permit would be considered a "significant" discharge. For those priority pollutant parameters not listed as "Action Levels" in the permit, any detectable net increase would be "significant". For those "Hazardous Materials" and "Substances of Concern" which are not priority pollutants, a "significant discharge" would be one that may reasonably be expected to cause or contribute to a condition in contravention of Water Quality Standards in the receiving waters. Part of the BMP Plan, therefore, may involve the definition of expected or possible discharges of each substance, and an evaluation of the water quality impacts of such discharges on the receiving water quality.

8. The BMP Plan shall also consider the identification of toxic substances in the shallow groundwater aquifer and bedrock aquifer within the plant site and the prevention, minimization, or elimination of discharges of toxic substances to Waters of the State that have been or are infiltrating from past or present operations.

In selecting appropriate measures, the BMP Plan shall consider sewer line rehabilitation, interception and treatment, evacuation and/or isolation.

SPECIAL CONDITIONS - BEST MANAGEMENT PRACTICES (Continued):

TABLE I

6M	Copper
7M	Lead
9M	Nickel
10M	Selenium
11M	Silver
13M	Zinc
14M	Cyanide
22V	Methylene Chloride
25V	Toluene
27V	1,1,1-Trichloroethylene
29V	Trichloroethylene
30V	Trichlorofluoromethane
25B	Dimethyl Phthalate
26B	Di-n-Butyl Phthalate
19P	PCB 1254 (transformers)
24P	PCB 1016 (Capacitors)
	Tetrahydrofuran

HEIGHTENED DEPARTMENT MONITORING (TOXICS)

The permittee shall be responsible for an annual prepayment of departmental costs for inspecting the facility and sampling and analyzing the discharge(s) from this facility. The Department and the permittee shall develop and the permittee shall institute a heightened monitoring program effort for all significant outfalls. The costs of such monitoring shall be borne by the permittee, and payable to the Department, in advance, on an annual basis beginning one year from the effective date of this permit. The costs shall include all direct personal and non-personal services related to this monitoring effort. Failure to cooperate with this monitoring effort or to prepay the costs are grounds for revocation of this permit.

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS

(a) Permittee shall achieve compliance with the effluent limitations specified in this permit for the permitted discharge(s) in accordance with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date
56	All	Submit an approvable Best Management Practices Plan, as outlined in this permit.	October 1, 1983
57	All	Impliment non-structural measures specified by the BMP Plan	April 1, 1984
58	All	Complete construction of structural measures specified by the BMP Plan (Note: The due date for the completion of the structural BMP measures may be modified, at the discretion of the Department, to allow the permittee reasonable and necessary time to design and construct these measures, which will be defined in the BMP Plan described above.)	June 30, 1984
59	All	Submit Flow measurement and analysis. (Three separate analyses of all priority pollutants at each outfall, as defined under "Special Reporting Requirements")	July 1, 1983
60	004	Submit for approval analytical method for tetrahydrofuran, and a proposed sampling program in conjunction with BMP plan development.	June 1, 1983
19	004	Submit flow measurement and sample analysis for tetrahydrofuran.	Aug. 1, 1983

(b) The permittee shall submit to the Department of Environmental Conservation the required document(s) where a specific action is required in (a) above to be taken by a certain date, and a written notice of compliance or noncompliance with each of the above schedule dates, postmarked no later than 14 days following each elapsed date. Each notice of noncompliance shall include the following information:

1. A short description of the noncompliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirement without further delay;
3. A description of any factors which tend to explain or mitigate the noncompliance; and
4. An estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next scheduled requirement on time.

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS

(a) Permittee shall achieve compliance with the effluent limitations specified in this permit for the permitted discharges, in accordance with the following schedule:

<u>Action Code</u>	<u>Outfall No.</u>	<u>Compliance Action</u>	<u>Due Date</u>
01	007	Submit Approvable Engineering Report	Before Discharge
02	007	Submit Approvable Final Plans	Before Discharge
08	007	Completion of Construction	Before Discharge
09	007	Attainment of Operational Level	Before Discharge
<u>Additional Requirements:</u>			
26	007	The permittee shall submit for Department Review and Approval a plan to determine the annual impingement of fish on all intake screens. The plan shall incorporate the following: A. Collections for 24 continuous hours one day per week for one year; B. Collection to begin at the same time for all collections; C. Screens to be washed thoroughly before the start of the 24-hour collection period; D. Individual length (cm) and weight (g) shall be made on at least 25 individuals of each species from each weekly collection; E. Facility water use, including intake and discharge water temperature shall be tabulated on a daily basis and included with the impingement report.	EDPM + 3 Months February 1, 1986
26	007	The permittee shall submit for Department Review and Approval a plan to conduct a fishery survey in Gill Creek once the facility is operating.	EDPM + 3 Months February 1, 1986
26	007	The permittee shall submit for Department Review and Approval a plan to verify the thermal plume.	EDPM + 3 Months February 1, 1986
26	007	The permittee shall submit for Department Review and Approval a plan to prevent rapid cooling of discharge temperatures during scheduled winter shutdown. Winter is defined as periods when ambient temperature is below 50°F.	EDPM + 3 Months February 1, 1986

SCHEDULE OF COMPLIANCE FOR EFFLUENT LIMITATIONS (continued)

(c) The permittee shall submit copies of the written notice of compliance or noncompliance required herein to the following offices:

Chief, Compliance Section
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Regional Water Engineer
New York State Department of Environmental Conservation
600 Delaware Avenue
Buffalo, New York 14202

U.S. EPA
Region II
26 Federal Plaza
New York, NY 10278

Niagara County Health Department
Main P.O. Box 428
Niagara Falls, New York 14302

The permittee shall submit copies of any engineering reports, plans of study, final plans, as-built plans, infiltration-inflow studies, etc. required herein to the New York State Department of Environmental Conservation Regional Office specified above unless otherwise specified in this permit or in writing by the Department or its designated field office.

MONITORING, RECORDING AND REPORTING

a) The permittee shall also refer to the General Conditions (Part II) of this permit for additional information concerning monitoring and reporting requirements and conditions.

b) The monitoring information required by this permit shall be:

Summarized, signed and retained for a period of three years from the date of sampling for subsequent inspection by the Department or its designated agent.

Summarized and reported by submitting completed and signed Discharge Monitoring Report forms once every ~~one~~ month(s) to the locations specified below. Blank forms available at department offices listed below.

The first report will be due no later than May 28, 1983.

Thereafter, reports shall be submitted no later than the 28th of the following month(s): every month.

Department of Environmental Conservation
Regional Water Engineer - Region 9
600 Delaware Avenue
Buffalo, New York 14202

Department of Environmental Conservation
Division of Water
50 Wolf Road,
Albany, New York 12233

(Applicable only if checked)

Dr. Richard Baker, Chief

Permit Administration Branch
Planning & Management Division
USEPA Region II, 26 Federal Plaza
New York, New York 10278

- c) If so directed, Monthly Wastewater Treatment Plant Operator's Reports should be submitted to the Regional Engineer and County Health Department or County Environmental Control Agency specified above.
- d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- e) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculations and recording of the data on the Discharge Monitoring Reports.
- f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- g) Unless otherwise specified, all information recorded on the Discharge Monitoring Report shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- h) On or after April 1, 1984, any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section five hundred two of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquires regarding laboratory certification should be sent to the Laboratory Certification/Quality Assurance Group, New York State Health Department Center for Laboratories and Research, Division of Environmental Sciences, The Nelson A. Rockefeller Empire State Plaza, Albany, New York 12201.

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