MUNICIPAL PRETREATMENT PROGRAM GUIDANCE PACKAGE

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Municipal Construction Division Office of Water Program Operations U.S. Environmental Protection Agency Washington, D.C. 20460

NOTE

This guidance document will be distributed through the Office of Water Program Operations--Municipal Construction Division, MCD Series. For limited copies, please contact Ms. Laura Cammarota at (202) 426-8976, or write:

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I. INTRODUCTION

The purpose of this document is to provide guidance for obtaining construction grant assistance for developing approvable local pretreatment programs. Sections II-VI provide background information for the reader in understanding the overall pretreatment picture. Specific information on developing a scope of work, development of a compliance schedule, and grant eligibility is covered in Section VII.

Sections 307(b) and (c) of the Clean Water Act (CWA) require that EPA develop and administer regulations pertaining to national pretreatment standards for existing and new industrial users introducing incompatible or toxic pollutants into publicly owned treatment works (POTWs). Furthermore, Sections 304(g)(1) and 304(h)(2) require that EPA issue guidelines to assist NPDES states in developing local pretreatment standards and uniform procedures for implementation of pretreatment programs by POTWs subject to state permits (NPDES) pursuant to Section 402(b) of the CWA. Section 301 (b)(2)(A)(ii) requires that all industrial users introducing pollutants into POTWs be in compliance with national pretreatment standards no later than 3 years after such standards have been established. In addition, as a condition to approval of a grant for construction, a municipality must demonstrate that it has the legal, institutional, and financial capability to insure the adequate operation and maintenance of it's treatment works (Section 201(b)(1)(c) of the CWA), including the implementation of the pretreatment program.

To implement these statutory requirements, EPA promulgated Part 403 of Title 40 of the Code of Federal Regulations, entitled, "General Pretreatment Regulations for Existing and New Sources of Pollution". In connection with Part 403 and as the result of consent decrees entered into by EPA in NRDC vs. Costle, national pretreatment standards (commonly referred to as Categorical Standards) for 34 industry categories and 65 classes of toxic pollutants, (broken down into 129 specific compounds), are being issued as technology-based pretreatment standards satisfying the requirement of Section 307(b) and (c) of the Act. Compliance with the above mentioned statutory and regulatory provisions is effected through the NPDES permit issued to POTWs in accordance with Section 402 of the Act and Parts 124 and 125 of the Regulations (Title 40 of C.F.R.). Furthermore, encouragement for Pretreatment Programs includes financial assistance in the form of Section 201 and 208 grants (40 CFR 35.907(a), 35.903, 35.920-3(b)7 and (c)(4), and 35.915-1(d)).

The major objectives of the General Pretreatment Regulations (Part 403 and other related sections cited above) are to: (1) prevent the introduction of pollutants into POTWs which will interfere with plant operations and/or the disposal or use of municipal sludge; (2) prevent the introduction of pollutants into POTWs which will pass through treatment works into receiving waters or the atmosphere or will otherwise be incompatible with the POTW; and (3) improve opportunities to recycle and reclaim wastewaters and the sludges resulting from wastewater treatment.

Finally, removal and disposal of toxic pollutants subject to the <u>NRDC</u> consent decree may be covered by the Resources Conservation and Recovery Act, or the Toxic Substances Control Act. Consequently, pretreatment programs developed

by POTWs (201 agencies) and Areawide Water Quality Management Planning Agencies (208 agencies) may result in subjecting industrial users to the requirements of these statutes and their implementing regulations. (See TSCA-15 USC 2605 and Part 761 of Title 40 of CFR; RCRA 42 USC 6921 and Part 257 of Title 40 CFR).

II. PROHIBITED DISCHARGE STANDARDS AND CATEGORICAL STANDARDS

To meet these objectives, the Pretreatment Regulation establishes the framework for application and enforcement of general Prohibited Discharge Standards for all dischargers and specific, technology-based Categorical Pretreatment Standards for 34 industrial categories.

Prohibited Discharge Standards

Prohibited Discharge Standards prohibit discharges from any nondomestic user containing certain types or amounts of pollutants which would substantially interfere with the operation of the POTW. These standards prohibit the introduction of pollutants into the POTW which:

- Create a fire or explosion hazard;
- Have a pH lower than 5.0;
- Obstruct the flow in the sewer system;
- Opset the treatment process and cause a permit or sludge quality violation; and
- Exceed 40°C at the POTWs influent.

The POTW must also set specific limits to supplement the Prohibited Discharge Standards based on the POTW's capacity to accept such pollutants. These general standards became effective on August 25, 1978, excluding the heat standard which must be met by August 25, 1981.

Categorical Pretreatment Standards

The Categorical Pretreatment Standards are in the process of being developed and will be promulgated separately by EPA. These categorical standards will contain concentration discharge limitations for each industrial category based on the best available technology economically achievable (BAT) for existing industries and based on the best available demonstrated technology economically achievable (BDT) for new industries. In establishing the categorical standards, EPA will review a list of 65 classes of toxic pollutants (Table 1) and will establish 34 sets, (Table 2), of pretreatment standards, one for each industrial category, for any of the 65 toxic pollutants found not to be susceptible to treatment by POTWs or which would interfere with the operation of the POTW. The industries subject to categorical pretreatment standards may have up to three years from the effective date of the standard to comply with the standard. For example, the categorical pretreatment standards for existing sources in the electroplating point source category were promulgated on September 7, 1979. These standards became effective on October 9, 1979, and all affected users of the POTWs must achieve compliance before October 12, 1982.

It should be noted that compliance dates associated with different industries vary and are not directly related to local pretreatment program development compliance dates.

Since not all of the categorical standards are promulgated at this time and the General Pretreatment Regulations are not completely finalized, a POTW should follow a phased approach in developing the local pretreatment program. This phased approach will be discussed in Section VII; scope of work, development schedule, and grant eligibility.

TABLE 1

65 TOXIC POLLUTANTS LISTED IN NRDC CONSENT DECREE AND REFERENCED IN 307 (a) OF THE CWA OF 1977

Acenapthene Acrolein Acrylonitrile Aldrin/Dieldrin Antimony and compounds Arsenic and compounds Asbestos Benzene Benzidine Beryllium and compounds Cadmium and compounds Carbon tetrachloride Chlordane Chlorinated benzenes Chlorinated ethanes Chloralkyl ethers Chlorinated naphthalene Chlorinated phenols Chloroform 2-chlorophenol Chromium and compounds Copper and compounds Cyanides DDT and metabolities Dichlorobenzenes Dichlorobenzidine Dichloroethylenes 2, 4-dichlorophenol Dichloropropane & Dichloropropene 2, 4-dimethylphenol Dinitrotoluene Diphenylhydrazine Endosulfan and metabolites

Enrin and metabolites Ethylbenzene Fluoranthene Haloethers **Halomethanes** Heptachlor and metabolites Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocyclohexane Isophorone Lead and compounds Mercury and compounds Napthalene Nickel and compounds Nitrobenzene Nitrophenols Nitrosamines Pentachlorophenol Phthalate esters Polychlorinated biphenyls (PCBs) Polynuclear aromatic hydrocarbons Selenium and compounds Silver and compounds 2,3,7,8,-Tetrachlorodibenzop-dioxin (TCDD) Tetrachloroethylene Thallium and compounds Toluene Toxaphene Trichloroethylene Vinyl chloride Zinc and compounds

TABLE 2

34 INDUSTRIAL CATEGORIES NRDC CONSENT DECREE - March 9, 1979 NATURAL RESOURCES DEFENSE COUNCIL (NRDC)

Indus	try
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- 1. Adhesives
- 2. Leather Tanning and Finishing
- 3. Soaps & Detergents
- 4. Aluminum Forming
- 5. Battery Manufacturing
- 6. Coil Coating
- 7. Copper Forming
- 8. Electroplating
- 9. Foundries
- 10. Iron & Steel
- 11. Nonferrous Metals
- 12. Photographic Supplies
- 13. Plastics Processing
- 14. Porcelain Enamel
- 15. Gum & Wood Chemicals
- 16. Paint & Ink
- 17. Printing & Publishing

Industry

- 18. Pulp & Paper
- 19. Textile Mills
- 20. Timber
- 21. Coal Mining
- 22. Ore Mining
- 23. Petroleum Refining
- 24. Steam Electric
- 25. Organic Chemicals
- 26. Pesticides
- 27. Pharmaceuticals
- 28. Pesticides Materials
- 29. Rubber
- 30. Auto & Other Laundries
- 31. Mechanical Products
- 32. Electric & Electronic Components
- 33. Explosives Manufacturing
- 34. Inorganic Chemicals

III. NPDES PERMITS

Pursuant to Section 402 and 405 of the Clean Water Act (CWA), the discharge of any pollutants or sewage sludge resulting from the operation of a treatment works are prohibited unless a National Pollutant Discharge Elimination (NPDES) permit is issued. Section 402(a)(1) of the CWA requires that as a condition to a NPDES permit, all requirements of Section 301, 302, 306, 307, 308, and 403 of the Act be met. Section 307(d) makes it unlawful for any indirect industrial discharger to violate any pretreatment standard or any POTW to violate effluent standards. Parts 122, 124, and 125 of Title 40 of the CFR (Consolidated Permit Regulations) implement among others, the requirements of Sections 402 and 405 of the CWA and prescribe the policy and procedures to be followed in connection with federally-issued NPDES permits. Similar requirements are imposed on dischargers through state-issued NPDES permits, authorized by Section 402(b) of the CWA and Part 123 of the regulations.

Under the Consolidated Permit Regulations, any person who discharges or proposes to discharge pollutants (including POTWs) from any point source into the waters of the United States and who does not have an effective permit must apply for either an individual NPDES permit (Section 122.53(a)) or a general permit (Section 122.59). Industrial users of POTWs (indirect industrial dischargers) are exempted from the requirements of applying for and obtaining such permits, but must comply with pretreatment standards under Section 307(b) of the CWA and Part 403 of the Regulations (see Section 122.51 (c)(iii) and Section 122.62(j)). Any POTW with a currently effective permit must submit a new application at least 180 days before the expiration of the existing permit unless an extention has been granted (Section 122.53(c)). Application for new permits under the Consolidated Permit Regulations must contain the information required by Sections 122.53(f) and 122.4(d) of the Regulations. All applications must be properly signed and include the required certifications (see Section 122.6).

In addition, for federally-issued permits, Section 401(a)(1) of the CWA requires that a certification from the State in which the discharge originates must be obtained or waived. Section 124.53 of the Consolidated Permit Regulations covers this requirement. In the case of state-issued permits, EPA reserves the right to review, comment on and object to the issuance of such permit within 90 days of it's transmission to EPA (see Section 123.75 and 123.74 of the Regulation). No permit shall be issued by a state when EPA has objected to it (Section 123.76) until appropriate action has been taken by the State Director to eliminate the objection (see Section 123.75(b)(2) (ii)).

Under the Consolidated Permit Program, permittees are required to comply with all the conditions of the applicable permit in accordance with Sections 122.7, 122.60 and 122.61 of the Regulations. Such conditions include, among others, duties: to reapply for permits; to properly operate treatment facilities; to provide information to the issuing official (an agency); to allow inspection and entry; to monitor and maintain records; and, to provide timely notice of noncompliance which may endanger the environment, etc. Any permit noncompliance constitutes violation of the appropriate Act (Clean Water Act) and is grounds for an enforcement action, termination, revocation or denial

of a permit (see Sections 122.7 and 122.60(a)). In addition, all POTWs must provide adequate notice of: (1) any new introduction of pollutants into that POTW which would be governed by Effluent Limitations under Section 301 of the CWA, if directly discharged; and (2) substantial changes in the volume or character of pollutants being introduced into that POTW (see Section 122.61 (b)).

Industrial users discharging into POTWs, while not required to obtain NPDES permits, will be required to comply with all national pretreatment standards whether or not they discharge into POTWs falling within the coverage of Part 403. Compliance with pretreatment standards is ensured through local pretreatment programs that are developed in accordance with Part 403 within time frames specified in a compliance schedule to be included in NPDES permits under Section 403.8(b) of the Pretreatment Regulations or Section 35.920(b) and (c) of the Construction Grants Regulations. When required, NPDES permits will be reissued or modified to prescribe the relevant compliance date. Industries subject to categorical pretreatment standards which do not discharge into a POTW required to develop a pretreatment program will be controlled by the applicable NPDES state or EPA.

With regards to pretreatment programs for POTWs, the Consolidated Permits Regulations require that POTWs: (1) identify, in terms of character and volume of pollutants, industrial users, subject to pretreatment standards under Section 307(b) of the CWA and Part 403 of Title 40 of CFR; and, (2) submit local programs, when required by and in accordance with Part 403. When required, such local programs will be incorporated into the permit as described in Part 403 (see Section 403.8(b).

The Consolidated Permit Regulations published on May 19, 1980, Volume 45, page 33290 of <u>The Federal Register</u>, fully implement the NPDES permit program requirements and should be referred to for more detailed information. They include the following Parts of Title 40 of the Code of Federal Regulations:

- Part 122 Permit Requirements;
- Part 123 State Program Requirements;
- Part 124 Procedures for Decision-Making;
- Part 125 Criteria and Standards for the National Pollutant Discharge Elimination System.

IV. GENERAL PRETREATMENT REGULATIONS (40 CFR 403)

The "General Pretreatment Regulations for Existing and New Sources of Pollution", (Title 40 of CFR), establish the responsibilities of government and industry to implement the following pretreatment objectives:

- (1) prevention of the introduction of pollutants into POTWs which will interfere with the operation of the plant and disposal of the sludge;
- (2) prevention of the introduction of pollutants which will pass through or are incompatible with the POTW; and
- (3) the improvements of opportunities to recycle and reclaim municipal and industrial wastewater and sludge.

Section 403.8 "POTW Pretreatment Programs: Development by POTW" defines the primary methods and responsibilities for implementing pretreatment objectives. Section 403.8 requires any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (mgd) which receive pollutants from Industrial Users which pass through or interfere with the operation of the POTW or are otherwise subject to section 307(b) or (c) standards to establish a Pretreatment Program. The Regional Administrator or State Director may require a POTW with a design flow of 5 mgd or less to develop a Pretreatment Program if the nature or volume of the industrial influent causes treatment process upsets, contributes to violations of the POTW's effluent limitations, causes contamination of municipal sludge, or otherwise causes interference or the pass through of pollutants.

The elements of an approvable pretreatment program include the requirement that the POTW have legal authority enforceable in Federal, State, or local courts to:

- (1) enforce national and local pretreatment standards, through permits, contracts or orders:
- (2) require the development of compliance schedules by industry for installation of technology necessary to meet applicable pretreatment standards;
- (3) carry out inspections and monitoring to determine compliance by industrial users with the applicable pretreatment standards; and
- (4) develop effective sanctions and remedies to ensure compliance with any pretreatment standards and requirements;

Also, the POTW must develop procedures enabling it to:

- identify all possible industrial users that may be subject to pretreatment requirements;
- (2) identify the pollutants contributed by such industrial users;

- (3) provide notice to affected industrial users of any requirements to which they may be subjected (including pretreatment standards); and
- (4) sample and analyze and inspect the effluent of industrial users and investigate instances of noncompliance with pretreatment standards and requirements.

These requirements are to be reflected in a program description, complying with Section 403.9(a)(1)(4), submitted and approved by the State Director (in NPDES-delegated states with pretreatment program approval) or the EPA Regional Administrator (in NPDES nondelegated states). Also, to accelerate development and implementation of pretreatment programs by POTWs, industrial users will be subject to reporting obligations set forth in Section 403.12.

To insure that POTWs will carry out the above requirements in a timely fashion, approval of pretreatment programs will be required no later than 3 years after the reissuance or modification of its NPDES permit, but in no case later than July 1, 1983 (see also Section VII).

An important factor to be considered by POTWs in developing pretreatment programs is the extent to which the treatment plant will remove toxic pollutants (pollutants subject to the categorical standards). Such removal potential may be significant in allowing some revision of pretreatment standards when the major objectives of Part 403 are not impaired. Details on the criteria and procedures to be used in revising pollutant discharge limits can be found in Section 403.7. Also, variances from categorical pretreatment standards for factors relating to an existing specific industrial user that are different from those considered by the Agency in developing categorical pretreatment standards can be obtained pursuant to Section 403.13.

V. CONSTRUCTION GRANTS REGULATIONS (40 CFR Part 35) ON MUNICIPAL PRETREAT-MENT PROGRAMS

For those POTWs (including NPDES and non-NPDES dischargers) that are required to implement pretreatment programs under the General Pretreatment Regulations (40 CFR Part 403), EPA will provide Federal funds to assist in the development of an approvable municipal pretreatment program. POTWs may request this funding assistance through amendments to their ongoing Step 1, Step 2, or Step 3 construction grants, or through a separate grant specifically for pretreatment. The scope of work of an approvable program, and grants eligibility for the development of an approvable program will be discussed in Section VII.

In addition, to enable the POTWs to meet their NPDES permit conditions, including pretreatment requirements, EPA requires the POTWs to develop their pretreatment program based on the following schedule:

- (1) In the Step 1 application, the plan of study must include development of an approvable pretreatment program (40 CFR 35.917-1(k)).
- (2) After December 31, 1980, a Step 2 application must include completed items required by 40 CFR 35.907(d)(1), (d)(2) and (d)(4). (40 CFR 35.920(b)(a)). This requirement automatically applies to Step 3 applications after that date.
- (3) A pretreatment program satisfying both 40 CFR 35.907(d) and 40 CFR 403.8 must be completed in accordance with the schedule for the development of a pretreatment program prescribed in the POTW's NPDES permit, or in absence of a permit schedule by December 31, 1981, and in any event no later than July 1, 1983. Otherwise, no new Step 3 grant will be awarded. A municipality with more than one POTW should have a single schedule for pretreatment program completion.
- (4) To receive grant payments beyond 90 percent, for a Step 3 or Step 2 and 3 project awarded after October 1, 1978, the grantee must have an approved pretreatment program, or otherwise demonstrate to the Regional Administration that significant progress has been made (and is likely to continue) toward the development of an approvable pretreatment program, and that withholding of grant payments would not be in the best interest of protecting the environment.

Municipal Sewage Sludge

Regulations for the utilization and disposal of sludge are needed to provide for its safe management and to protect human health and the environment. Regulatory requirements that have been developed by EPA are having a major impact on the POTW's ability to manage municipal sewage sludge. USEPA Office of Water Programs is preparing a guidance document entitled, "A Guide to Regulations and Guidance for the Utilization and Disposal of Municipal Sewage Sludge."

The document provides concise up-to-date guidance on all relevant regulations. Included as background information is the current proportion of sludge handled by the described alternatives, salient technical facts, limitations, and other information that helps establish the current status. The applicable laws, regulations, and guidelines are brought together for each method of sludge disposal. The procedures given for implementing a described method show which regulations need to be addressed and how to meet the regulatory requirements. The guidance also indicates problems that are not addressed by the regulations and suggests possible solutions to these problems. It includes sections on: incineration, composting, surface impoundment, ocean dumping, landspreading, and distribution to the general public.

The current strategy for regulating sludge within the Agency calls for the development of comprehensive sludge regulations by the Office of Solid Waste. The guidance document is an important step in the Agency's effort to develop this regulation. The existing regulations are scattered throughout The Federal Register. They have been developed under the authority of at least seven laws—the Clean Water Act (CWA) (PL 95-217), the Resource Conservation and Recovery Act (RCRA) (PL 94-580), the Marine Protection Research and Sanctuaries Act (PL 92-532), the Clean Air Act (PL 91-604 and 95-95), the Safe Drinking Water Act (PL 93-523), the National Environmental Policy Act (PL 91-190), and the Toxic Substances Control Act (PL 94-469). In brief, summaries of how each of these Federal laws apply to sludge management are contained in Table 3. Table 4 presents major areas of impact within Subtitles C and D of RCRA.

Industrial Residuals

The General Pretreatment Regulations will affect the introduction of non-domestic wastes into POTWs. Pretreatment Standards may, in some cases, require industrial users to reduce or eliminate the amount of pollutants (or alter pollutant properties) before discharging wastewaters into POTWs.

Industry compliance with these standards will improve the potential for recycling municipal sludges because of the absence of toxic pollutants; however, the residuals generated by industry during pretreatment will be of great concern. In an effort to assist POTWs and their respective industrial users with solving waste management problems, USEPA, Office of Enforcement, is developing a document entitled <u>Industrial Residuals Manual</u>. This document brings together the most current and available information on residual waste management options and requirements, legislative and regulatory conside-

rations, wastewater pollutants, categorical industries affected by Federal pretreatment standards, and pretreatment and sludge management technologies. Publication is scheduled for the Fall of 1980.

Considerations for cost-effective sludge/residuals treatment and disposal options are also covered in this document. The following flow diagram represents an approach that addresses the economic impacts and cost-effective solutions possible under an integrated waste management plan. Studies to evaluate and determine the cost-effective alternatives for industrial residuals and municipal sludges can be considered grant eligible on a case-by-case basis.

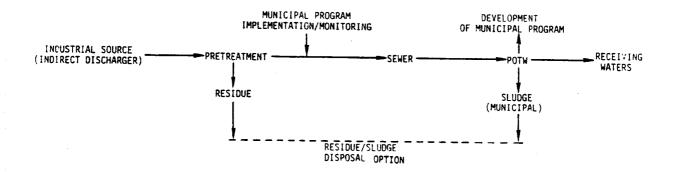


TABLE 3

FEDERAL LAWS APPLICABLE TO SLUDGE MANAGEMENT

- Clean Water Act of 1977, PL 95-217 (CWA) and the Federal Water Pollution Control Act of 1972, PL 92-500 (FWPCA). Authorizes Federal funding of up to 75 percent (85 percent for innovative and alternative technology projects) for the construction of wastewater treatment plants and sludge management operations; requires EPA to issue comprehensive sludge management guidelines and regulations; authorizes the NPDES (National Pollution Discharge Elimination SYstem) for point source discharges and development of areawide waste treatment or water quality management plans for non-point source pollution; and requires the implementation of pretreatment standards for industrial discharges that enter POTMs.
- Resource Conservation and Recovery Act of 1976, PL 94-580 (RCRA). Provides financial assistance to state and local governments for development of solid waste management plans; provides that technical assistance be developed for solid waste management methods; requires regulations involving the closure or upgrading of existing open dumps; requires regulations for the safe disposal of hazardous waste; and encourages the research and demonstration of more effective solid waste disposal and resource conservation technologies.
- Marine Protection Research and Sanctuaries Act of 1977, PL 92-532 (MPRSA). Phases out ocean disposal of sewage sludge by December 31, 1981. MPRSA also gives EPA the authority to determine a reasonable compliance schedule for the implementation of land-based disposal alternatives.
- Clean Air Act Amendments of 1970 and 1977, PL 91-604 and PL 95-95 (CAA). Authorizes the development of State Implementation Plans (SIPs) for the purpose of meeting minimum Federal ambient air quality standards. To meet the CAA objectives, EPA has developed an emission offset policy for new or modified incinerator facilities and a procedure for preventing the significant deterioration of ambient air quality. CAA also authorizes regulations for the control of hazardous air pollutants and new source performance standards.
- Safe Drinking Water Act of 1975, PL 93-523 (SDWA). Requires coordination with the CWA and RCRA to protect drinking water from contamination.
- National Environmental Policy Act of 1969, PL 91-190 (NEPA). Authorizes Regional Administrators, at their discretion, to require Environmental Impact Statements (EIS) (40 CFR), Part 6) if an adverse social, economic or environmental impact is suspected for a new or modified sludge disposition facility or practice.
- Toxic Substances Control Act of 1975, PL 94-469 (TSCA), Section 9. Requires coordination with the Clean Air Act and Clean Water Act to restrict disposal of hazardous wastes. Presently only PCB (polychlorinated biphenyl) is regulated in regards to sludge disposition. If a sludge contains greater than 50 ppm PCB then the disposition practice must comply with PCB regulations (40 CFR, Part 761).

TABLE 4

MAJOR AREAS OF IMPACT - RCRA

Subtitle C - Hazardous-Waste Management

- Section 3001 Identification and listing of hazardous wastes (December 1978). (ignitable, corrosive, reactive, or toxic).
- Section 3002 Standards applicable to hazardous-waste generators (December 1978) (records, labeling, containers, chemical composition, manifest system, periodic reporting of quantities and disposition of wastes generatea).
- Section 3003 Standards applicable to hazardous-waste transporters. Proposed regulations (April 28, 1978) (records, transport labeled wastes only, manifest system, transport to permitted disposal site only).
- Section 3004 Standards applicable to management of hazardous-waste treatment, storage and disposal facilities (December 1978) (records; reporting, monitoring, inspection, compliance; history; location, design and construction of facilities; contingency plans; operation, maintenance, ownership, personnel, and financial responsibility; permit compliance.)
- Section 3005 Permits for treatment, storage or disposal facilities. Effective 6 months after regulations are promulgated. (Permit application, issuance, interim permits for facilities in existence as of October 21, 1976 - complied with preliminary notification requirements and application filed prior to effective date of regulations.)
- Section 3006 Authorization of State programs. Federal guidelines to be published. In general, States will regulate.

Subtitle D - Non-hazardous Waste Management - State or Regional Solid Waste Plans

Section 4004 - Guidelines for plans. (Environmentally sensitive areas such as: wetlands, etc.; surface water; groundwater; air; land application consideration such as pathogens, Cd, etc.; disease vectors; safety.)

VII. SCOPE OF WORK, DEVELOPMENT SCHEDULE AND GRANTS ELIGIBILITY

Federal funds (maximum of 75 percent of total costs) to assist POTWs in developing approvable pretreatment programs will be available through 201 Construction Grants and governed by the Construction Grant Regulations (40 CFR Part 35). POTWs may request funding through revision of amendments to ongoing Step 1, 2, or 3 grants or through a separate grant specifically for pretreatment. Costs incurred for pretreatment programs developed prior to the effective date (September 28, 1978) of the pretreatment requirements in the Construction Grant Regulations however, are not reimbursable. Work performed after that date to an existing program in order to comply with Federal guidelines or to develop new programs is fundable. 40 CFR 35.907 (d) outlines the items included in the development of a pretreatment program to ensure its eligibility and approvability for Federal funding. Any of the fundable pretreatment program items may be performed by the POTW itself using force account procedures if approved in accordance with 40 CFR 35.935-14 or may be contracted to consultants.

Additionally, equipment and facilities necessary to implement the pretreatment program are also grant eligible. However, any purchase of monitoring equipment or construction of facilities for monitoring equipment may only proceed after the pretreatment program is approved and readily implementable. Section F of this package provides a brief discussion of monitoring equipment costs, and operating personnel requirement information.

There can be as many as four segments in the development of pretreatment programs. These four segments are as follows:

- Segment 1. Development of items d(1), (2), and (4) under 40 CFR 35.907 for Step 2 applicants.
- Segment 2. Development of items d(3) and d(5)-d(9) under 40 CFR 35.907 for Step 3 applications.
- Segment 3. Purchase of monitoring equipment and construction of facilities for monitoring equipment, if necessary, after the program is approved and readily implementable.
- Segment 4. Additional work on d(1)-d(9) (including equipment, facilities) needed as a result of newly developed (not modified) categorical standards, and general pretreatment regulations.

Any grant application can include costs for all the four segments, or a portion thereof, and will be subject to EPA/State approval. If a grant is awarded for work under more than one segment, the detailed scope of the next segment should be reviewed upon completion of the previous segment.

The June 27, 1980, class deviation on pretreatment program submissions in the construction grants program requires that workplans must be submitted detailing the schedule to meet the Steps 2 and 3 grant applications requirement. This requirement can be met by any of the following:

- 1. An already submitted plan of study for the pretreatment program which includes a schedule to meet the Step 2 and/or Step 3 grant application requirement.
- 2. Evidence that Step 2 and/or Step 3 grant application requirements have already been met.
- 3. As part of grants application plan of study for the pretreatment program development.
- 4. A development schedule indicating milestone points to meet the required submission dates for Step 2 or Step 3 grant applications.

A detailed description of the work for each item under each segment is discussed as follows:

Segment 1. Items d(1), d(2), and d(4) of §35.907 for Step 2 Application.

(1) Item d(1): Industrial Waste Survey

All industrial users of the POTW must be identified. Industrial users, as classified and identified in the user charge system, should be used as a base for this identification. Subsequent to identification, all industrial users must be notified to report to the POTW their industry classification and the general discharge and flow characteristics. A model questionnaire (Appendix C) illustrates the type of information to be included. It is anticipated that follow-up activities will be necessary to obtain the information required. Follow-up letters and meetings may be adequate, but in certain cases exercise of legal authorities may be necessary. Upon receipt of all industrial information, the industrial users must be categorized by SIC code.

In addition, under §35.907(f), the costs of a limited amount of end-of-pipe sampling and associated analysis of industrial discharges to a municipal treatment works properly allocable to the municipality are allowable if the grantee obtains the prior written approval of the Regional Administrator [see §35.940-3(f)]. The purpose of such sampling includes the following: (i) verification of data provided by those industrial dischargers which may have a significant adverse impact on the POTW; (ii) sampling of recalcitrant industrial users which are suspected to have a significant adverse impact on the POTW and have refused to provide the required information concerning their discharge; (iii) sampling to determine interaction of industrial pollutants from various sources where such interaction is suspected to occur and further suspected to have an adverse impact on the POTW; (iv) sampling to determine interaction or effect due to other suspected sources such as non-point or nonindustrial sources from which a POTW is experiencing an adverse impact.

Appendix C contains a Table (pages C-6 and C-7) that can be useful in identifying potential impacts of priority pollutants from categorical industries and minimizing sampling and analysis costs in developing a pretreatment program.

(2) Item d(2): Evaluation of Legal Authority

Concurrent with identification of industries, the municipality must review its existing ordinances and other legal authorities to monitor and regulate the discharge of wastes from non-domestic dischargers. In particular, the legal authority to require submission of discharge-related information must be assessed. If adequate legal authority does not exist to require the submission of information by all industrial users, such authority must be established. The review of legal authority must embrace all elements of subsection 403.8 for development of the complete pretreatment program. Upon completion of this review, any necessary changes to the existing ordinances or other legal authorities must be developed to provide for implementing the provisions of Subsection 403.8. Particular attention must be given to multi-municipal systems to ensure that the permittee has proper jurisdiction over all industrial users within the permittee's service area.

(3) Item d(4): Technical Information

The information obtained from the industrial survey should be used to highlight those pollutants which the POTW should sample for in its influent and effluent. In some cases the POTW's influent and effluent may be scanned (gas chromatography/mass spectrometry) for all the 129 EPA Priority Pollutants.

The results of the sewage treatment plant's samples should be analyzed to determine removal in existing treatment works and the tolerance to those "significant" pollutants found (i.e., the prohibited pollutants--40 CFR 403.5--and those that pass through in such quantities that cause water quality or NPDES permit violations, or interfere with the operation of the works or sludge treatment, reuse, recycle, or disposal). For treatment works not yet in existence, these analyses, if necessary, must be performed in the design phase of the treatment works. For the "significant" pollutants in the POTW's influent and/or effluent, quantitative information should be obtained from the industries inventoried in item 1 above to the extent such information was not previously submitted with the questionnaire. (Note: Limited end-of-pipe sampling and associated analysis eligibility was discussed under item d(1)). This technical information is required to support development of the industrial waste ordinance (or other enforcement mechanism) and after December 30, 1980 must be part of a Step 2 Construction Grant application. The final determination of specific pollutant limitations for the "significant" pollutants present must be completed prior to grant application. See Segment 2, items d(6) and d(7) for additional guidance in determining local standards.

Implementation of the pretreatment program will generate additional quantities of hazardous and/or toxic residuals, thus the following residual tasks must be performed as a condition of grant funding. (Note: The following requirements are not mandated by the general pretreatment regulations and thus need not necessarily be implemented by POTWs developing pretreatment programs without construction grant assistance):

- a. Survey industrial contributors to treatment works to determine type and quantity of residuals generated presently and estimated to be generated due to compliance with upcoming pretreatment standards. (See Appendix C--Model Industrial Questionnaire attached.) Estimates are satisfactory based upon analysis of the industries in the various SIC categories.
- b. Determine whether individual generators of residual waste plan to dispose of it on site in the political jurisdictions served by the POTW sewer system. Advise such industries of their obligations under the Resource Conservation and Recovery Act (RCRA).

Segment 2. Items d(3) and d(5)-d(9) of §35.907 for Step 3 Application.

(1) Item d(3): Evaluation of Financial Program

An overall evaluation of financial capabilities and systems to properly finance the pretreatment program, monitoring techniques and equipment and technical information necessary to implement the pretreatment program must be conducted. The user charge system is available for implementation of the pretreatment program.

The costs associated with administering the industrial aspects of the local program should be recovered proportionately from the indirect industrial dischargers using the POTW.

(2) Item d(5): Design of a Monitoring Enforcement Program.

The permittee must notify all affected industrial users of applicable local, State or Federal pretreatment standards. The permittee is responsible for obtaining detailed information on the industrial discharges, schedules to come into compliance with pretreatment standards and all other requirements of Subsection 403.12. The municipality must develop a program to monitor compliance of the industrial users with the pretreatment requirements in accordance with 403.12.

(3) Item d(6) and d(7): A Determination of Pollutant Removals in Existing Treatment Works and Tolerance to Pollutants which Interfere with Its Operation, Sludge Use, or Disposal.

These items expand on the need for technical information determined under item d(4). The determination of pollutant removal in an existing treatment facility is necessary to adequately protect the treatment, the sludge utilization or disposal operation and the receiving waters. Determination of design parameters needed to properly design a treatment facility (accounting for categorical standards application to non-domestic users) is required to insure proper operation of the POTW. This information is required to assist the POTW in determining specific local prohibitive standards or more strigent categorical standards. Determination of specific pollutant removal for the purpose of establishing removal credits for industrial users is not grant eligible.

(4) Items d(8) and d(9): Monitoring Equipment and Facilities.

The POTW is required to develop a list of equipment for monitoring and analysis of industrial discharges to the municipal system that would be required to implement the proposed compliance monitoring program. Costs of such equipment will ordinarily be part of a Step 3 Construction Grant application and are subject to Program Operations Memorandum 78-4 for eligibility determination. A grantee may acquire such equipment to serve multiple jurisdictions if agreed upon by those jurisdictions where such a regional approach would make cost-effective purchase of necessary equipment.

As appropriate, the POTW is required to determine the need for construction of facilities to house the monitoring and analysis equipment necessary to the pretreatment program for controlling industrial wastes.

These total costs have to be cost-effective in order to be grant eligible.

Segment 3. Purchase of Monitoring Equipment and Construction of Facilities.

The purchase of required monitoring equipment and construction of facilities for housing the equipment, if necessary, is grant-eligible after a local pretreatment program is approved and ready to be implemented. Eligibility is limited to required equipment for administering and operating the local program at the time of approval. Equipment and facilities expected to be required for future program needs will be considered for funding under Segment 4.

Segment 4. Additional Efforts for Newly Developed Categorical Standards and General Pretreatment Regulations.

Additional efforts on items d(1)-d(9), including monitoring equipment and facilities, required as the result of newly developed (not modified) categorical standards and general pretreatment regulations will be grant eligible. This provides flexibility in the grant program and allows the grantee to be responsive to future requirements as necessary.

This segment is necessary in view of the delay in the development of categorical standards and general pretreatment regulations. Making additional efforts eligible would allow the grantee to only purchase and construct the equipment and facilities that are necessary for immediate implementation, yet still provide a mechanism by which future equipment and facilities can be purchased with grant assistance. This approach allows the grantee to meet the requirement under all the applicable categorical standards and the general pretreatment regulation.

In reference to NPDES permit requirements, Section 307(b) and 402(b)(8) of CWA require the permittee to meet a compliance schedule for the development of an approvable local pretreatment program. Table 5 shows the specific activities (1-8) to be covered in the permit compliance schedule. These activities are cross referenced to item d(1)-d(9) in §35.907 of the Construction Grant Regulation. In any event, the permit requirements govern.

TABLE 5
MODEL PRETREATMENT COMPLIANCE SCHEDULE

ACTIVITY NO.	REFERENCE §35.907	ACTIVITY	DATE
1	d(1)	Submit the results of an industrial user survey as required by 40 CFR 403.8(f)(2)(i-iii), including identification of industrial users and the character and volume of pollutants contributed to the POTW by the industrial users.	
2	d(2)	Submit an evaluation of the legal authorities to be used by the permittee to apply and enforce the requirements of Sections 307(b) and (c) and $402(b)(8)$ of the Clean Water Act, including those requirements outlined in 40 CFR $403.8(f)(1)$.	
3	d(4)	Submit a determination of technical information (including specific requirements to specify violations of the discharge prohibitions in 403.5) necessary to develop an industrial waste ordinance or other means of enforcing pretreatment standards.	
4	d(3)	Submit an evaluation of the financial and revenue sources, as required by 40 CFR 403.8(f)(3), which will be employed to implement the pretreatment program.	
5	d(5)	Submit design of a monitoring program which will implement the requirements of 40 CFR 403.8 and 403.12, and in particular those requirements referenced in 40 CFR 403.8(f)(1)(iv-v), 403.8(f)(2) (iv-vi) and 403.12(h-j), (1-n).	
5	d(8) d(9)	Submit list of monitoring equipment required by the POTW to implement the pretreatment program and a description of municipal facilities to be constructed for monitoring or analysis of industrial wastes.	
7	d(6) . d(7)	Submit specific POTW effluent limitations for prohibited pollutants (as defined by 40 CFR 403.5) contributed to the POTW by industrial users.	
8		Submit a request for pretreatment program approval (and removal credit approval, if desired) as required by 40 CFR 403.9.	

Eligibility for specific items under the development of a local pretreatment program are covered in Table 6.

TABLE 6

ELIGIBLE COSTS FOR THE DEVELOPMENT OF AN APPROVABLE MUNICIPAL PRETREATMENT PROGRAM

			<u>Task</u>			and the second s	Item Referenced in §35.907
1.	Ident	ifica	tion	and survey of indus	trial	Yes	d(1)
	A. Inver		ntory of existing information		tion	Yes	
	В.	Acqui	sitio	n of additional inf	ormation	Yes	•
		(1) (2)		ionnaire/direct con ed end-of-pipe samp		Yes Yes, with prior R written approval	A
2.	Revie	w of	legal	authority		Yes	d(2)
	Α.	Asses	sment	of current authori	ties	Yes	
	8.	Develop alternative control approaches				Yes	
		(3)		t ance ation of intermunic aches	ipal		
	C.	<pre>Selection of most appropriate mechanism(s)</pre>			:	Yes	
	0.	Preparation of documents necessary to establish authority for and implement the pretreatment program (e.g., legislative proposals)			No		
3.		e for		selection of a reve reatment program im		Yes	d(3)
4.				f technical informa ce or standards	tion to	Yes	d(4), d(6), and d(7)
	Α.		ibited Itants	and "significant"	discharge	Yes	
		(1) (2)		Identification of problems in operations	Yes		
			Development of POTW tolerance to problem pollutants	Yes			
			(a) (b) (c)	review of operating review of literatur review of limits fo pollutants which masubject to categoricharge standards	e r problem y also be		
		(3)	prohi	opment of specific bited and "signific tants		Yes	

TABLE 6 (Continued)

	T	ask		Eligi	bility	Item Referenced in §35.907
	(1)	Information management systems necessary to integrate all facets of the program		Yes	
	((2)	Staffing levels required		Yes	
	((3)	Laboratory/equipment/construction needs		Yes	
5.	Public	: Par	rticipation		Yes	
	inform affect	the	se of this item is to e general public and industries of the struc- the program is taking			
	A. P	Prel '	iminary Meeting		Yes	
	п	nativ	uss approach; alter- ves to be considered; light known problems			
	B. M	4idpo	oint Meeting		Yes	
	p	prese	uss items covered to date; ent interim outputs and re actions			
	C. F	Fina	l Meeting		Yes	
			ent full program prior to bmittal for approval			
7.	Monitoring, Sampling and Analysis Equipment for use by POTW				see Segmen	t 3,
	Trucks			Case	by case	
	Automo	obil	es	Case	by case	
	Equipment used by industry				No	

APPENDIX A SAMPLE PLAN OF STUDY

SAMPLE PLAN OF STUDY

I. Background and Description of the POTW and Service Area.

II. Industrial Waste Survey

The purpose of this task is to identify and characterize the industrial users of the POTW. The tasks required are as follows:

- A. Identification, review of potential sources:
 - Existing Sewer Authority Files;
 - City and State Industrial Directories;
 - Labor Department Records;
 - 4. Property Tax Records;
 - 5. Chamber of Commerce Rosters;
 - 6. Census Bureau Records:
 - 7. Local Telephone Directories;
 - 8. Water Consumption Records;
 - Dun's Market Identifiers Dun & Bradstreet;
 - 10. Part 4 of the Municipal Permit Application Form;
 - 11. Informative Data Company (IDC), St. Louis, MO; and
 - 12. Utility Company Records.

B. Characterizations

- 1. By SIC Category (type of industry) from:
 - a. questionnaire/direct contact
 - b. manual, by reference to SIC list
 - c. other
- 2. By pollutant type and quantity; for identified problem pollutants from:
 - a. questionnaire/direct contact
 - b. sampling program
 - c. estimates

Data developed during this phase will be manually entered in a centralized file, which will identify the industry, its location, type of discharge, potential problem pollutants and other issues pertaining to the pretreatment management study. This information will become part of the information management system developed under item IV.

III. Pretreatment Limitation Development

The purpose is to identify the current problems in operations resulting from the discharge of industrial wastes, if any, and the level of control necessary to overcome these problems and to integrate State and National pretreatment standards which have been issued into the program.

- A. Prohibited discharge pollutants
 - 1. Identification of problems in POTW operations
 - 2. Development of POTW tolerance to problem pollutants
 - a. review of operating history
 - b. review of literature
 - c. review of limits for problem pollutants which may also be subject to categorical discharge standards
 - Development of specific limits for problem and prohibited discharges (40 CFR § 403.5)
- B. Categorical Standards Requirements
 - 1. Review for applicability
 - 2. Review for potential for deviations from national standards, either by local credits or fundamentally different factors (optional/not grant-eligible)

IV. Design of Monitoring Enforcement Program

The purpose is to establish an overall approach to the continuing management of the program and ensuring compliance with pretreatment standards.

- A. Identification and analysis of industrial waste contributions and actions to:
 - 1. Develop mechanisms to meet minimum federal standards
 - notify industry of specific categorical or prohibited discharge limits, including future
 - b. receive and analyze initial reports (403.12(b))
 - c. receive and analyze schedule compliance reports (403.12(c))
 - d. receive and analyze final compliance reports (403.12(d)
 - e. receive and analyze semi-annual reports (403.12(e))
 - f. develop modification to categorical standard reports (403.7(c)) (optional/not grant-eligible)
 - g. develop annual report on violators (403.3(b) (VII))
 - h. develop random sampling program (see below)
 - 2. Determine local controls necessary to insure compliance
 - a. develop sampling needs and schedule (403.8(f)(2)(v))
 - random (at industry)
 - 2) periodic (at selected points)
 - b. develop noncompliance tracking procedures (403.8(f)(2)(vi))
 - Perform limited amount of end-of-pipe sampling of industrial effluent (prior written approval of RA required for grant eligibility)

- B. Development of needs to accomplish monitoring program
 - 1. Information management systems necessary to integrate all facets of the program.
 - 2. Staffing levels required.
 - 3. Laboratory/equipment needs established under item VI.

V. Evaluation of Legal Authorities

The purpose of this section is to ascertain what actions are necessary to insure that the community has adequate legal authority to enforce the pretreatment program. Minimum Federal requirements are set forth in 403.8, and require the community to have the capability to: (i) control discharges to insure compliance with pretreatment standards; (ii) develop and enforce compliance schedules and reporting requirements; (iii) carry out independent inspection, surveillance and monitoring and; (iv) obtain injunctive relief and assessment of penalties for noncompliance.

- A. Assessment of current authorities
- B. Develop alternative control approaches
 - 1. Contract
 - 2. Permit
 - 3. Ordinance
 - 4. Evaluation of intermunicipal approaches
 - 5. Other
- C. Selection of most appropriate mechanism(s)
- D. Preparation of documents necessary to obtain authority for and implement the control program (not grant-eligible)

A mechanism for reviewing a local ordinance to determine if it is sufficient to meet the requirements of 40 CFR Part 403 is contained in Appendix D of this guidance package. Also included in this Appendix is a draft Model Ordinance.

VI. Needed Equipment/Construction to Implement the Program

- A. Laboratory
 - 1. Analyses needed; type and frequency
 - 2. Purchase cost vs. contract cost (including regional approach)
- B. Sampling
 - 1. Sampling, type and frequency
 - 2. Equipment needed
 - a. fixed
 - b. portable (motor vehicles, mobile laboratory facilities are not grant-eligible)
- C. Sitework necessary at approved municipal sampling locations

VII. Funding Necessary to Implement the Program

- A. Capital costs; summation of A, B and C under item VI
- B. Operating Costs
 - 1. Labor
 - 2. Supplies
 - 3. Contracted services
- C. Alternative sources of funding:
 - 1. User Charges
 - 2. Fee-for-service charges
 - 3. Discretionary ICR receipts
 - 4. Other

VIII. Public Participation

The purpose of this item is to inform the general public and affected industries of the structure that the program is taking.

- A. Preliminary meeting to discuss approach; alternatives to be considered; highlight known problems
- B. Midpoint meeting to discuss items covered to date; present interim outputs and future actions.
- C. Final meeting to present full program prior to a submittal for approval

IX. Summary of Report

- A. General findings; industrial impact
- B. Schedule of implementation
- C. Schedule of submittal for approval
- D. Costs and revenue sources

Preparation of Program Submission

The contents of a POTW Pretreatment Program Submission must contain suitable information, in sufficient detail, to adequately demonstrate the POTWs ability and plan of implementation to carry out the Pretreatment Program.

Prior to submission of three copies of the program description to the NPDES State Approval Authority or Regional Administrator of EPA (for POTWs in non-NPDES States), the POTW should provide information to and consultation with interested and affected members of the public. A copy of the draft Submission should be available to the public 30 days before it is submitted to the

Approval Authority. This draft Submission must be accompanied by a fact sheet, written in layman's terms, adequately describing the POTW Pretreatment Program and its significance and/or any request for authority to modify Categorical Pretreatment Standards for pollutants removed by the POTW.

APPENDIX B

SAMPLE SPECIAL GRANTS CONDITIONS

Special Grant Conditions

Grant Increase for C-555555-01,

Municipal Pretreatment Program Development

- 1. 40 CFR 35.907 of the Construction Grant Regulations provides that the Regional Administrator is authorized to provide grant assistance for the development of an approvable municipal pretreatment program as required by 40 CFR 403. In accepting this grant amendment, the grantee agrees to comply with all applicable requirements of the construction grant and pretreatment regulations, including the approval data requirements set forth in 35.920-3(b), 35.920-3(c)(4), 35.935.19 and 40 CFR 403.8(b).
- 2. As set forth in 40 CFR 35.936-14, the grantee must secure prior approval of the force account method for any Step 1 work in excess of \$10,000. Before EPA approves the use of force account, the grantee must demonstrate that he possesses the necessary competence required to accomplish such work and that (1) the work can be accomplished more economically by the use of the force account method, or (2) emergency circumstances dictate its use. Force account costs eligible for grant participation may include costs for labor, materials and other out-of-pocket expenses. Such costs as amortization of skunk costs or maintenance costs for laboratory equipment purchased by the grantee are not eligible force account costs.
- 3. The grantee agrees that all equipment purchased with construction grant funds will be acquired in accordance with procurement requirements set forth in 40 CFR 35.936.
- 4. The grantee agrees to comply with provisions of the Federal regulations under 40 CFR 35.936-7, 35.936-15 and with other requirements of Region _____ to make positive efforts to utilize, to the maximum extent practicable, small and minority A/E firms in completing the pretreatment program. In pursuing this effort the grantee is to consider, as applicable, the course of action set forth in the above referenced regulations which were published in The Federal Register on February 23, 1977. Grant payments for this project will not be made until this office is advised that minority and small business firms have entered into contracts to perform segments of the work, or until evidence is submitted which indicates an acceptable level of positive measures taken to utilize minority and small business firms.
- 5. The grantee agrees to comply with all applicable requirements of 40 CFR 35.936 and 35.937 concerning the procurement of architectural or engineering services, including those concerning subcontracts under subagreements for architectural or engineering services. In addition to copies of proposed subagreements and subcontracts under subagreements, the grantee agrees to submit, as a minimum, documentation describing the consultant selection process, basis for selection and negotiations leading to determination of a fair and reasonable price

- and time for completion of significant project tasks. No work shall be initiated and no payment shall be made until EPA has notified the grantee of its approval.
- 6. Award of this grant amendment does not obligate the United States to fund any subsequent or related projects nor any findings or recommendations which result from this project.
- 7. EPA shall have, at all times, complete access to all facilities used and all records, data reports, etc. resulting from these studies. The grantee further agrees, at no additional cost to the United States, to furnish one reproduceable master and 3 copies of all draft and final documents requested by EPA and that the use of such documents shall be determined solely by EPA.

APPENDIX C

SAMPLE INDUSTRIAL SURVEY QUESTIONNAIRE

MODEL INDUSTRIAL WASTE QUESTIONNAIRE

GENERAL INFORMATION

Phone

Standard Industrial Classification Code (SIC)
Company Name
Mailing Address
Address of Premises
Name and Title of Signing Official
Contact Official
Name
Title
Address

The information contained in this questionnaire is familiar to me and to the best of my knowledge and belief, such information is true, complete, and accurate.

Date Signature of Official

PLANT OPERATIONAL CHARACTERISTICS

Brief description of manufacturing or service activity on premises:

Principal Raw Materials Used:

Catalysts, Intermediates:

Principal Product or Service appropriate)	(use Standard	Industria	l Classificati	on Manual if
Type of Discharge:		Batch		Continuous
If batch, average number of b	atches/24 hrs		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Is there a scheduled shutdown When?	?			
Is production seasonal? If yes, explain indicating mo	nth(s) of peak	producti	on	
Average number of employees p Shift start times:1s	<u></u>	-		3rd
Shifts normally worked each d Sun Mon Tue 1st	Wed Thu		·····	
Describe any wastewater treat	ment equipment	or proce	esses in use:	
Raw Water Sources:				
Source	<u>Quantity</u>	11		
		gallons p	•	
		gallons p	-	
		·	-	

Describe any raw water treatment processes in use:

List Water Consumption in Plant

Cooling water	gallons per day
Boiler feed	gallons per day
Process water	gallons per day
Sanitary system	gallons per day
Contained in product	gallons per day
Other	gallons per day
List average volume of discha	arge or water loss to
City wastewater sewer	gallons per day
	gallons per day
Waste hauler	gallons per day
Evaporation	gallons per day
•	gallons per day
Is discharge to sewer:	Intermittent Steady
List plant sewer outlets, siz	e, flow (attach and refer to map):
Is there a Spill Prevention C plant? Yes	ontrol and Countermeasure Plan in effect for this

Are any of the toxic pollutants listed in Table 1 being used at this facility in manufacturing of the product or is a by product which may be discharged? If so, please indicate by a check mark on Table 1.

TABLE 1

65 Toxic Pollutants Listed In Consent Decree and Referenced in 307(a) of the CWA of 1977

Acenapthene Acrolein Acrylonitrile Aldrin/Dieldrin Antimony and compounds Arsenic and compounds Asbestos Benzene Benzidine Beryllium and compounds Cadmium and compounds Carbon tetrachloride Chlordane Chlorinated benzenes Chlorinated ethanes Chlorinalkyl ethers Chlorinated naphthalene ·Chlorinated phenols Chloroform 2-chlorophenol Chromium and compounds Copper and compounds Cyanides DDT and metabolities **Dichlorobenzenes** Dichlorobenzidine Dichloroethylenes 2, 4-dichlorophenol Dichloropropane & Dichloropropene 2. 4-dimethylphenol Dinitrotoluene Diphenylhydrazine Endosulfan & metabolites

Endrin and metabolites **Ethylbenzene** Fluoranthene Haloethers Halomethanes Heptachlor and metabolites Hexachlorobutadiene Hexachlorocyclopentadiene Hexachlorocylohexane Isophorone Lead and compounds Mercury and compounds Naphthalene Nickel and compounds Nitrobenzene Nitrophenols Nitrosamines Pentachlorophenol Phenol Phthalate esters Polychlorinated byphenyls(PCB) Polynuclear aromatic hydrocarbons Selenium and compounds Silver and compounds 2,3,7,8,-Tetrachlorodibenzop-dioxin (TCDD) Tetrachloroethylene Thallium and compounds Toluene Toxaphene Trichloroethylene Vinyl chloride Zinc and compounds

NOTE: List any other toxicants known or anticipated to be present in the discharge.

PRETREATMENT

Is this plant subject to an existing Federal Pretreatment Standard?

If so, are Pretreatment Standards being met on a consistent basis?

Are additional pretreatment facilities and/or operation and maintenance required to meet Pretreatment Standards? If additional pretreatment and/or operation and maintenance are required, list the schedule by which they will be provided:

The following table lists the categorical industrial groups that may discharge priority pollutants to the POTW. The pollutants noted are considered significant in the wastewater discharge based on a national survey of industries conducted by EPA. This does not mean that every facility within a specific group discharges that pollutant; it does mean that there is a high probability that it will be in the discharge. In addition, it does not mean that there is a high probability that other priority pollutants will not be found in significant quantities but in general, the manufacturing process and raw materials do not lead to the discharge of these pollutants.

CITY	INDUSTRY CATEGORY	TEXTILE MILLS	INORGANIC CHEMICALS	AP	SEE			TEGOR OF TH				AUTO AND OTHER LAUNDRIES	PESTICIDES
COMPOUND NAME			11									₹	۵
Acendonthene Z. Acrolein													
3. Lacrylonitrile													
i. Denzene i. Denzidine					 								
S. i caroon tetrachloride													
7. chloropenzene 3. 1,2,4-crichloropenzene					 								
- 3. Inexachiorcoenzene													
10. 1.2-gich loroethane				-			1	1		_			
72. nexacnioroetnane													
									1				
14. 1,1,2-trichloroethane 15. 11.2,2-tetrachloroethane													
16. chloroethane 17. pistchloromethyl) ather						1							
13. (bis(2-chloroethy)) ether													
19, 2-miorpetnyl vinyl etner (mixed) 20. 2-chloromagnthalene						i 1	}						
21. 2,4,5-Erichioropheno													
22. parachiorometa cresol 23. chioroform (trichioromethane)				-		<u> </u>							
24. 2-chloroppenol													
25. 1.2-dichlaromenzene 25. 1.3-dichlaromenzene					 								
27. [1,4-dichlorobenzene													
29. [1,1-dichloropenzidine 29. [1,1-dichloropenzidine				-	 	-) 						
30. 1,2-crans-dignioroethylene													
32. 1.2-dichiorophenoi					 								
13. 1.2-dichioropropylene (1.3-dichioropropene)													
14. 2.4-dimethylphenol 15. 2.4-dimitrotoluene					 						1		
16. 2.5-dinitrotoluene													
37. 1.2-diomenylhydrazine 38. ethylbenzene													
19. i Tuorathene													
10 4chigrophenyl phenyl ether 11. 4-promognenyl phenyl ether		-			 	1							
12. 315(2-chiorisopropy) ether													-
13. bis(2-chlordethoxy) methane 14. methylene chloride (dichlordmethane)				 	 								
45. methyl chloride (chloromethane)													
16. methy promide (promomethane) 17. promoform tripromomethane)				,									
48. iiich gropromomethane													
49. trichlorofluoromethane							<u> </u>						
El. chigrogibromomethane													
12. nexachioroputagiene 13. nexachiorocyclopentagiene					 <u></u>		<u> </u>						
51, isophorane 55, inconthalene													
56. ni Crogenzene													
[57. nitrophenol													
:7. 2dinitropnenol													
30. 4.5-dint tro-g-cresol													
62. Hanttrosocioneny lamine													
53. Y-ni rosogi-n-oronylamine 54. pentachlorophenoi													
SS. Smenoi		 			 	 		<u> </u>					
والمراجع والم					 								

			,											
	<u>۲</u> ۶		S										DRIES	
CITY	CATEGORY	· S	CHEMICAL	LI	ST TH	HE IN	DUSTI	RY CA	TEGOR	RIES	WHICH	4	R LAUN	
	INDUSTRY	LE MILLS	ł	1	PLY -		TABI	E 2	OF TH	IE GU	I DAN	CE	AND OTHER LAUNDRIES	TOFS
	I	TEXTILE	INORGANIC									,	AUTO A	PESTICIDES
. COMPOUND NAME	$\overline{}$,											⋖	
56. Dis(2-ethylhexyl) onthalate 57. Dutyl penzyl onthalate														
fd. ii-n-outy onthelate														
To. I dietnyi phthalate														
i. dimetnyl onthalate														
/2. Denzo(a)anthracene (1,2-benzanthracene)														
74. 3.4-penzofluoranthene 5. penzo(k) fluoranthane (11.12-penzofluoranthene	ne i		-			-	<u> </u>			 				
76. carvsene														
/a, anthracene						-								
79. cenzo(qni)perylene (1,12-benzoperylene)														
31. nenanthrene				-			 		<u> </u>					
32. I dibenzo(a.n)anthracene (1.2.5.5-dibenzanthra	(acsúe													
33. Indend (1,2,3-cd)pyrene (2,3-d-ohenvlenepyr	aue)								 	 				
35. I tetrachiorgethylene				Ĭ										
36, Italuene 37, Itricalo roethylene		-		1										
38. vinyl chloride (chloroethylene)														
39. Falgrin 70. Edieldrin														
31. chlordane (technical mixture & metabolites)														
33. 4.4'-00E (0.5'-00X)									Ī					
94. 4.4'-000 (p.p'-10E) 95. a-endosulfan-Apnaa														
36. D-endol sul fan-deta														
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APPENDIX D*

ORDINANCE REVIEW SHEET AND SAMPLE MODEL ORDINANCE

* This draft model ordinance is being reviewed and will be included in the 304(g) pretreatment guidance document to be published later in 1980.

ORDINANCE REVIEW SHEET

INSTRUCTIONS FOR USE

Introduction

The ordinance review sheet is an aid to evaluation of the legal authority of publicly owned works to carry out the requirements and procedures of the General Pretreatment Regulations For Existing and New Sources of Pollution of 40 CFR Part 403. It is designed primarily for review of local statutes. Legal authority mechanisms other than statutes—contracts, joint powers agreements, and local administrative regulations—may satisfy the Federal regulatory requirements. They can be reviewed using this form, if the reviewer makes careful notes.

PART I

Part I of the Ordinance Review Sheet is essentially an outline of the EPA Model Ordinance. The first column contains two types of notations:

- (1) The section number in which the information is found in the EPA Model Ordinance (Appendix B).
- (2) Reference to the General Pretreatment Regulations 40 CFR Part 403 which either requires or describes the need for that item's inclusion.

The comments column is used to compare the local ordinance and related documents with the regulatory requirements and model ordinance. When the local ordinance adequately covers an item, the ordinance's corresponding section number is recorded. Not all the items are required by law or regulation; their inclusion is considered desirable to the operation of an effective Pretreatment Program.

PART II

The General Pretreatment Regulations require POTWs to have adequate legal authority to apply and to enforce the requirements of Sections 307(b) and (c) and 402(b)(8) of the Clean Water Act and any regulations implementing those sections. This authority must meet the requirements of Section 403.8(f)(1) of the General Pretreatment Regulations. This section contains six subsections referenced as 403.8(f)(1)i-vi. Attachment I to this Appendix presents the entire wording of these subsections and other relevant sections of 40 CFR Part 403.

Part II is to be used as an overall summary and review of the subject ordinance to ensure completeness and compliance with the minimum requirements of Section 403.8(f)(1). If the subject ordinance meets any of these minimum requirements, the section number(s) which achieves compliance is recorded in the column labeled "Overall Comments."

PART I

40CFR, Part 403	EPA Model Ordinance	ITEM	COMMENTS ON EXISTING ORDINANCE	···
	Section 1	GENERAL PROVISIONS	·	
	1.1	Purpose		
	1.1	Policy		
	1.1	Objectives		
	1.2	Definitions		
	1.3	Abbreviations		
	Section 2	REGULÀT LONS		
403.5	2.1	General Discharge Prohibitions		0-2
403.5(b)(l)	2.1(a)	(i) fire/explosion hazard		_
403.5(b)(2)	2.1(c)	(2) pH/corrosion		
403.5(b)(3)	2.1(b)	(3) solid or viscous - obstruction/interference		
403.5(b)(4)	2.1(j)	(4) volume or strength to cause interference		
403.5(b)(5)	2.1(1)	(5) heat		
		Others include: toxic pollutants, noxious or malodorous, objectionable color, slug flows, radioactive wastes, etc.		
403.6	2.2	Federal Categorical Pretreatment Standards		
403.7	2.3	Modification of Standards		
	2.4	Specific Pollutant Limitations -concentration limit for arsenic, cadmium, copper, cyanide, lead, mercury, nickel, silver, total chromium, zinc, total identifiable chlorinated hydrocarbons, and phenolic compounds.		

ORDINANCE REVIEW SHEET PART I (Continued)

40CFR, Part 403	EPA Model Ordinance	ITEM	COMMENTS ON EXISTING ORDINANCE
	2.5	State Requirements	
	2.6	City's Right of Revision	
	2.7	Excessive Discharges	
	2.8	Accidental Discharges	
	Section 3	FEES	Refer to 40 CFR 35.929 (ICR-User Charge)
	3.1	Purpose	
	3.2	Charges and Fees	
D-	3.2(a)	(a) reimbursement for set-up and operating the Pretreatment Program	
ယ်	3.2(b)	(b) fees for monitoring, inspection and sur- veillance procedures	
	3.2(c)	(c) review of accidental discharge procedures and construction	
	3.2(d)	(d) permit applications	
	3.2(e)	(e) filing appeals	
	3.2(f)	(f) fees for consistent removal	
	3.2(g)	(g) other fees deemed necessary	
	Section 4	ADMINISTRATION	
403.8(f)(1)1	4.1	Wastewater Discharges	
403.8(f)(1)iii	4.2	Wastewater Contribution Permits	
	4.2.1	General Permits	
	4.2.2	Permit Application	
		n read Hetanetonn	

ORDINANCE REVIEW SHEET

PART I (Continued)

40CFR, Part 403	EPA Model Ordinance	LTEM	COMMENTS ON EXISTING ORDINANCE
403.8(f)(1)i-vi	4.2.4	Permit Conditions	
	4.2.5	Permit Duration	
	4.2.6	Permit Transfer	
403.8(f)(1)1v	4.3	Reporting Requirements for Permitee	
403.12	4.3.1	Compliance Date Report	·
403.12	4.3.2	Periodic Compliance Reports	
403.8(f)(1)v	4.4	Monitoring Facilities	
403.8(f)(1)v	4.5	Inspection and Sampling	
403.8(f)(1)11	4.6	Pretreatment	
	4.7	Confidential Information	D-4
	Section 5	ENFORCEMENT	
403.8(f)(1)vi	5.1	Harmful Contributions	
403.8(f)(1)i-vi	5.2	Revocation of Permit	
	5.3	Notification of Violation	
	5.4	Show Cause Hearing	
403.8(f)(1)vi	5.5	Legal Action	
	Section 6	PENALTY: COSTS	
403.8(f)(1)vi	6.1	Civil Penalties	
	6.2	Falsifying Information	

ORDINANCE REVIEW SHEET PART I (Continued)

40CFR, Part 403	EPA Model Ordinance	ITEM	COMMENTS ON EXISTING ORDINANCE
	Section 7	SEVERABILITY	
	Section 8	CONFLICT	
	Section 9	EFFECTIVE DATE	
	Section 10	INDUSTRIAL SEWER APPLICATION	
D- 5	Section 11	WASTEWATER DISCHARGE PERMIT	

ORDINANCE REVIEW SHEET

PART II

40CFR, Part 403	EPA Model Ordinance	LEGAL AUTHORITY REQUIREMENTS 40 CFR, PART 403	OVERALL COMMENTS ON EXISTING ORDINANCE
		Note: See Attachement A of this Appendix for the entire wording of the regulatory requirements. At a minimum, the legal authority shall enable a POTW to:	·
403.8(f)(1)i	4.1	Deny or condition new or increased contributions	
403.8(f)(1)11	2.2,4.2,4.6	Require compliance with applicable Pretreatment Standards	
403.8(f)(1)111	4.2	Control through permit, contract, order, or similar means to ensure compliance	9-0
403.8(f)(1)iv	4.2.4,4.3	Require (A) the development of a compliance schedule (B) the submission of all notices and self monitoring reports	
403.8(f)(1)v	4.4,4.5	Carry out all inspection, surveillance and monitor- ing procedures	·
403.8(f)(1)vi(A) 403.8(f)(1)vi(B)		 (A) Obtain remedies for noncompliance (B)The POTW shall have authority and procedures immediately and effectively to halt or prevent any discharge 	

ATTACHMENT I

LEGAL AUTHORITY REQUIREMENTS

INTRODUCTION

The General Pretreatment Regulations require POTWs to operate pursuant to adequate legal authority which authorizes or enables the POTW to apply and to enforce the requirements of Sections 307(b) and (c) and 402(b)(8) of the Clean Water Act and any regulations implementing those sections. At a minimum, this legal authority must meet the requirements of Section 403.8(f)(1) of the General Pretreatment Regulations. This section contains six subsections referenced as 403.8(f)(1)i-vi. Following is the actual language used in the regulation in its entirety for these six subsections. Also included is the verbage of other specific requirements referred to in the subsections.

NOTE: The General Pretreatment Regulations have been reproposed in order to incorporate changes (dated October 29, 1979 and January 10, 1980). The following regulatory requirements incorporate those revisions currently being proposed.

40 CFR, PART 403 REQUIREMENTS - LEGAL AUTHORITY

403.8(f)(1) - The POTW shall operate pursuant to legal authority, enforceable in Federal, state or local courts, which authorizes or enables the POTW to apply and enforce the requirements of the Clean Water Act. At a minimum, this legal authority shall enable the POTW to:

403.8(f)(1)(i)

Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by Industrial Users where such contributions do not meet applicable Pretreatment Standards and requirements or where such contributions would cause the POTW to violate its NPDES Permit.

[Comment: This provision is not intended to require pretreatment for compatible waste as a substitute for adequate municipal treatment. When difficulties arise in meeting NPDES permit conditions, it is the responsibility of the POTW to come into compliance with its permit. The POTW should consider a solution that is cost-effective and equitable, and consistent with the goal of joint treatment.]

403,8(f)(1)(ii)

Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users.

403.8(f)(1)(iii)

Control, through permit, contract, order or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.

403.8(f)(1)(iv)

Require (A) the development of a compliance schedule by each Industrial User for the installation of technology required to meet applicable Pretreatment Standards and Requirements and (B) the submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in Section 403.12.

[Comment: POTWs and NPDES States are encouraged to develop procedures to ensure the protection of trade secrets and confidential business information (See 40 CFR Part 2).]

- 403.12 Reporting Requirements for POTW's and Industrial Users (as referenced above in 403.8(f)(1)(iv)).
- (a) Definition. The term "Control Authority" as it is used in this section refers to: (1) The POTW if the POTW's Submission has been approved in accordance with the requirements of 403.11; or (2) the Approval Authority if the Submission has not been approved.

[Comment: In cases where there is an approved POTW Pretreatment Program, the Approval Authority may request that Industrial Users submit to it copies of reports required under 403.12.]

(b) Reporting Requirements for Industrial Users. Within (i) 180 days after the promulgation of a categorical Pretreatment Standard under Section 307(b) or (c) of the Act, or (ii) 180 days of the effective date of 40 CFR Part 403 where 307(b) or (c) Categorical Pretreatment Standards are promulgated before the effective date of 40 CFR Part 403, existing Industrial Users subject to such Categorical Pretreatment Standards and currently discharging in or scheduled to discharge into a POTW will be required to submit to the Control Authority a report which contains the information listed in subparagraphs (1)-(7) of this paragraph.

[Comment: Where reports containing this information already have been submitted to the Director or Regional Administrator in compliance with the requirements of 40 CFR 128.140(b), the Industrial User will not be required to submit this information again.]

New sources shall be required to submit to the Control Authority a report which contains the information listed in subparagraphs (1)-(5) of this paragraph:

- (1) The name and address of the Industrial User;
- (2) The location of such Industrial User:
- (3) The nature, average rate of production, and Standard Industrial Classification of the operation(s) carried out by such Industrial User;
- (4) The measured average and maximum flow of the discharge from such Industrial User to the POTW, in gallons per day, or, where approved by the Control Authority due to cost or feasibility considerations, the average and maximum flow of the discharge as estimated by verifiable techniques;
- (5) The nature and concentration of polluants in the discharge from each regulated process from such Industrial User and identification of the applicable Pretreatment Standards and Requirements. The concentration shall be reported as a maximum or average level as provided for in the applicable Pretreatment Standard. If an equivalent concentration limit has been calculated in accordance with Section 403.6(e), this adjusted concentration limit shall also be submitted to the Control Authority for approval.
- (6) A statement, reviewed by an authorized representative of the Industrial User (as defined in subparagraph (k) of this section) and certified to by a qualified professional, indicating whether Pretreatment Standards are being

met on a consistent basis and, if not, whether additional operation and maintenance (O. and M.) and/or additional pretreatment is required for the Industrial User to meet the Pretreatment Standards and Requirements; and

- (7) If additional pretreatment and/or 0. and M. will be required to meet the Pretreatment Standards; the shortest schedule by which the Industrial User will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard.
- (c) The following conditions shall apply to the schedule required by paragraph (b)(7) of this section:
- (1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the Industrial User to meet the applicable Pretreatment Standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).
- (2) No increment referred to in paragraph (c)(1) of this section shall exceed nine months.
- (3) No later than 14 days following each date in the schedule and the final date for compliance, the Industrial User shall submit a progress report to the Control Authority including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the Industrial User to return the construction to the schedule established. In no event shall more than nine months elapse between such progress reports to the Control Authority.
- (d) Within 90 days following the date for final compliance with applicable Pretreatment Standards or, in the case of a New Source, following commencement of the introduction of wastewater into the POTW, any Industrial User subject to Pretreatment Standards and Requirements shall submit to the Control Authority a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by Pretreatment Standards and Requirements and the average and maximum daily flow for these process units in the Industrial User which are limited by such Pretreatment Standards or Requirements. The report shall state whether the applicable Pretreatment Standards or Requirements are being met on a consistent basis and, if not, what additional O. and M. and/or pretreatment is necessary to bring the Industrial User into compliance with the applicable Pretreatment Standards or Requirements. This statement shall be signed by an authorized representative of the Industrial User, as defined in paragraph (k) of this section, and certified to by a qualified professional.
- (e)(1) Any Industrial User subject to a Pretreatment Standard, after the compliance date of such Pretreatment Standard, or, in the case of a New Source, after commencement of the discharge into the POTW, shall submit to the Control Authority during the months of June and December, unless required more frequently in the Pretreatment Standard or by the Control Authority or the Approval Authority, a report indicating the nature and concentration, of

pollutants in the effluent which are limited by such Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the discharge reported in paragraph (b)(4) of this section, except that, the Control Authority may require more detailed reporting of flows.

[Comment Authority to require more detailed reporting of flow should, in most causes, be preserved for those cases where the Industrial User is a major source of inflow to the POTW Treatment Plant or is a significant contributor of pollutants.]

At the discretion of the Control Authority and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the Control Authority may agree to alter the months during which the above reports are to be submitted.

- (2) The Control Authority may impose mass limitations on Industrial Users which are using dilution to meet applicable Pretreatment Standards or Requirements or in other cases where the imposition of mass limitations are appropriate. In such cases, the report required by subparagraph (1) of this paragraph shall indicate the mass of polluants regulated by Pretreatment Standards in the effluent of the Industrial User.
- (f) The Industrial User shall notify the POTW immediately of any slug loading, as defined by 403.5(b)(4), by the Industrial User.
- (g) The reports required in paragraphs (b)(5), (d), and (e) of this section shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the Control Authority, of pollutants contained therein which are limited by the applicable Pretreatment Standards. The frequency of monitoring shall be prescribed in the applicable pretreatment standard. All analysis shall be performed in accordance with procedures established by the Administrator pursuant to Section 304(g) of the Act and contained in 40 CFR Part 136 and amendments thereto or with any other test procedures approved by the Administrator. Sampling shall be performed in accordance with the techniques approved by the Administrator.

[Comment: Where 40 CFR Part 136 does not include a sampling or analytical technique for the pollutant in question sampling and analysis shall be performed in accordance with the procedures set forth in the EPA publication, Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants, April 1977, and amendments thereto, or with any other sampling and analytical procedures approved by the Administrator.]

403.8(f)(1)(v)

Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information, supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which an effluent source or treatment system is located or in which records are required to be kept under

403.12(m) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under Section 308 of the Act.

403.12(m) [as referenced above in 403.8(f)(1)(v)]

The reports required by paragraphs (b), (d), (e), (h), (i), and (j) of this section shall be subject to the provisions of 18 U.S.C. Section 1001 related to fraud and false statements and the provisions of Section 309(c)(2) of the Act governing false statements, representations or certifications in reports required under the Act.

Section 308 of the Clean Water Act [as referenced above in Section 403.8 (f)(1)(v)]

INSPECTIONS, MONITORING, AND ENTRY

Sec 308(a) Whenever required to carry out the objective of this Act, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, or standard of performance under this Act; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance; (3) any requirement established under this section; or (4) carrying out Sections 305, 311, 402, 404 (relating to State permit programs), and 504 of this Act-

- (A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require; and
- (B) the Administrator or his authorized representative, upon presentation of his credentials-
 - (i) shall have a right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained under clause (A) of this subsection are located, and
 - (ii) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under clause (A), and sample any effluents which the owner or operator of such source is required to sample under such clause.
- (b) Any records, reports, or information obtained under this section (1) shall, in the case of effluent data, be related to any applicable effluent limitations, toxic, pretreatment, or new source performance standards, and (2)

shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (other than effluent data), to which the Administrator has access under this section, if made public would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information, or particular portion thereof confidential in accordance with the purposes of Section 1905 of Title 18 of the United States Code, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this Act or when relevant in any proceeding under this Act.

(c) Each State may develop and submit to the Administrator procedures under State law for inspection, monitoring, and entry with respect to point sources located in such State. If the Administrator finds that the procedures and the law of any State relating to inspection, monitoring, and entry are applicable to at least the same extent as those required by this section, such State is authorized to apply and enforce its procedures for inspection, monitoring, and entry with respect to point sources located in such State (except with respect to point sources owned or operated by the United States).

403.8(f)(1)(vi)

- (vi)(A) Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement. All POTW's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. In cases where State law has authorized the municipality or POTW to pass ordinances or other local legislation, the POTW shall exercise such authorities in passing legislation to seek and assess civil or criminal penalties for noncompliance by Industrial Users with Pretreatment Standards and Requirements. POTWs without such authorities shall enter into contracts with Industrial Users to assure compliance by Industrial Users with Pretreatment Standards and Requirements. An adequate contract will provide for liquidated damages for violation of pretreatment standards and requirements and will include an agreement by the Industrial User to submit to the remedy of specific performance for breach of contract.
- Pretreatment Requirements which will be enforced through the remedies set forth in subparagraph (A) will include but not be limited to the duty to allow or carry-out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the POTW; or any reporting requirements imposed by the POTW or these regulations. The POTW shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons. The POTW shall also have authority and procedures (which shall include notice to the affected Industrial Users and an opportunity to respond) to halt or prevent any discharge to the POTW which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the POTW. The Approval Authority shall have authority to seek judicial relief for noncompliance by Industrial Users when the POTW has acted to seek such relief but has sought a penalty which the Approval Authority finds to be insufficient.

[Comment: The procedures for notice to dischargers where the POTW is seeking exparte temporary judicial injunctive relief will be governed by applicable State or Federal law and not by this provision.]

DRAFT MODEL ORDINANCE

ORDINANCE	NO.	

SECTION 1 GENERAL PROVISIONS

1.1 Purpose and Policy

This ordinance sets forth uniform requirements for direct and indirect contributors into the wastewater collection and treatment system for the City of and enables the City to comply with all applicable State and Federal laws required by the Clean Water Act of 1977 and the General Pretreatment Regulations (40 CFR Part 403).

The objectives of this ordinance are:

- (a) To prevent the introduction of pollutants into the municipality wastewater system which will interfere with the operation of the system or contaminate the resulting sludge;
- (b) To prevent the introduction of pollutants into the municipal wastewater system which will pass through the system, inadequately treated, into receiving waters or the atmosphere or otherwise be incompatible with the system;
- (c) To improve the opportunity to recycle and reclaim wastewaters and sludges from the system; and
- (d) To provide for equitable distribution of the cost of the municipal waste-water system.

This ordinance provides for the regulation of direct and indirect contributors to the municipal wastewater system through the issuance of permits to certain non-domestic users and through enforcement of general requirements for the other users, authorizes monitoring and enforcement activities, requires user reporting, assumes that existing customer's capacity will not be preempted, and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

This ordinance shall apply to the (City of ____) and to persons outside the (City) who are, by contract or agreement with the (City), Users of the (City) POTW. This ordinance is a supplement to Ordinance No. ____ as amended. Except as otherwise provided herein, the (Superintendent) of the (City) POTW shall administer, implement, and enforce the provisions of this ordinance.

1.2 Definitions

Unless the context specifically indicates otherwise, the following terms and phrases, as used in this ordinance, shall have the meanings hereinafter designated:

- (1) Act or "the Act". The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251, et. seq.
- (2) Approval Authority. The Director in an NPDES state with an approved State Pretreatment Program and the Administrator of the EPA in a non-NPDES state or NPDES state without an Approved State Pretreatment Program.
- (3) <u>Authorized Representative of Industrial User</u>. An authorized representative of an Industrial User may be: (1) A principal executive officer of at least the level of vice-president, if the Industrial User is a corporation; (2) A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively; (3) A duly authorized representative of the individual designated above if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.
- (4) <u>Biochemical Oxygen Demand (BOD)</u>. The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure, five (5) days at 20° centigrade expressed in terms of weight and concentration (milligrams per liter (mg/l)).
- (5) <u>Building Sewer</u>. A sewer conveying wastewater from the premises of a User to the POTW.
- (6) <u>Categorical Standards</u>. National Categorical Pretreatment Standards or Pretreatment Standard.
- (7) <u>City</u>. The City of _____ or the City Council of _____.
- (8) Cooling Water. The water discharged from any use such as air conditioning, cooling or refrigeration, or to which the only pollutant added is heat.
- (9) Control Authority. The term "control authority" shall refer to the "Approval Authority", defined hereinabove; or the Superintendent if the City has an approved Pretreatment Program under the provisions of 40 CFR 403.11.
- (10) <u>Direct Discharge</u>. The discharge of treated or untreated wastewater directly to the waters of the State of .
- (11) Environmental Protection Agency, or EPA. The U.S. Environmental Protection Agency, or where appropriate the term may also be used as a designation for the Administrator or other duly authorized official of said agency.
- (12) <u>Grab Sample</u>. A sample which 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.
- (13) Holding tank waste. Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks, and vacuum-pump tank trucks.

- (14) Indirect Discharge. The discharge or the introduction of nondomestic pollutants from any source regulated under section 307(b) or (c) of the Act, (33 U.S.C. 1317), into the POTW (including holding tank waste discharged into the system).
- (15) <u>Industrial User</u>. A source of Indirect Discharge which does not constitute a "discharge of pollutants" under regulations issued pursuant to section 402, of the Act. (33 U.S.C. 1342).
- (16) Interference. The inhibition or disruption of the POTW treatment processes or operations which contributes to a violation of any requirement of the City's NPDES Permit. The term includes prevention of sewage sludge use or disposal by the POTW in accordance with 405 of the Act, (33 U.S.C. 1345) or any criteria, guidelines, or regulations developed pursuant to the Solid Waste Disposal Act (SWDA), the Clean Air Act, the Toxic Substances Control Act, or more stringent state criteria (including those contained in any State sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the POTW.
- (17) National Categorical Pretreatment Standard or Pretreatment Standard. Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307(b) and (c) of the Act (33 U.S.C. 1347) which applies to a specific category of Industrial Users.
- (18) National Prohibitive Discharge Standard or Prohibitive Discharge Standard. Any regulation developed under the authority of 307(b) of the Act and 40 CFR. Section 403.5.
- (19) New Source. Any source, the construction of which is commenced after the publication of proposed regulations prescribing a section 307(c) (33 U.S.C. 1317) Categorical Pretreatment Standard which will be applicable to such source, if such standard is thereafter promulgated within 120 days of proposal in the Federal Register. Where the standard is promulgated later than 120 days after proposal, a new source means any source, the construction of which is commenced after the date of promulgation of the standard.
- (20) <u>National Pollution Discharge Elimination System or NPDES Permit</u>. A permit issued pursuant to section 402 of the Act (33 U.S.C. 1342).
- (21) Person. Any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine, the singular shall include the plural where indicated by the context.
- (22) pH. The logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.
- (23) <u>Pollution</u>. The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.
- (24) Pollutant. Any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials.

- radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
- (25) Pretreatment or Treatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical or biological processes, or process changes other means, except as prohibited by 40 CFR Section 403.6(d).
- (26) <u>Pretreatment Requirements</u>. Any substantive or procedural requirement related to pretreatment, other than a National Pretreatment Standard imposed on an industrial user.
- (27) Publicly Owned Treatment Works (POTW). A treatment works as defined by section 212 of the Act, (33 U.S.C. 1292) which is owned in this instance by the City. This definition includes any sewers that convey wastewater to the POTW treatment plant, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. For the purposes of this ordinance, "POTW" shall also include any sewers that convey wastewaters to the POTW from persons outside the (city) who are, by contract or agreement with the (city), users of the (city's) POTW.
- (28) <u>POTW Treatment Plant</u>. That portion of the POTW designed to provide treatment to wastewater.
- (29) Shall is mandatory: May is permissive.
- (30) Significant Industrial User. Any Industrial User of the City's wastewater disposal system who (i) has a discharge flow of 25,000 gallons or more per average work day, or (ii) has a flow greater than 5% of the flow in the City's wastewater treatment system, or (iii) has in his wastes toxic pollutants as defined pursuant to Section 307 of the Act of (State) Statutes and rules or (iv) is found by the City, (State Control Agency) or the U.S. Environmental Protection Agency (EPA) to have significant impact, either singly or in combination with other contributing industries, on the wastewater treatment system, the quality of sludge, the system's effluent quality, or air emissions generated by the system.
- (31) State. State of _____
- (32) <u>Standard Industrial Classification (SIC)</u>. A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972.
- (33) Storm Water. Any flow occurring during or following any form of natural precipitation and resulting therefrom.
- (34) <u>Suspended Solids</u>. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater or other liquids, and which is removable by laboratory filtering.

- (35) <u>Superintendent</u>. The person designated by the City to supervise the operation of the publicly owned treatment works and who is charged with certain duties and responsibilities by this article, or his duly authorized representative.
- (36) <u>Toxic Pollutant</u>. Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of the Environmental Protection Agency under the provision of CWA 307(a) or other Acts.
- (37) <u>User</u>. Any person who contributes, causes or permits the contribution of wastewater into City's POTW.
- (38) <u>Wastewater</u>. The liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, and institutions, together with any ground water, surface water, and storm water that may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.
- (39) <u>Waters of the State</u>. All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State or any portion thereof.
- (40) <u>Wastewater Contribution Permit</u>. As set forth in section 4.2 of this ordinance.

1.3 Abbreviations

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The following abbreviations shall have the designated meanings:

- BOD Biochemical Oxygen Demand
 - CFR Code of Federal Regulations
- ° COD Chemical Oxygen Demand
- ° EPA Environmental Protection Agency
- ° 1 Liter
- ° mg Milligrams
- ° mg/l Milligrams per Liter
- . NPDES National Pollutant Discharge Elimination System
- . POTW Publicly Owned Treatment Works
- . SIC Standard Industrial Classification
- . SWDA Solid Waste Disposal Act, 42 U.S.C. 6901, et. seq.
- . USC United States Code
- . TSS Total Suspended Solids

SECTION 2 - REGULATIONS

2.1 General Discharge Prohibitions

No User shall contribute or cause to be contributed, directly or indirectly, any pollutant or wastewater which will interfere with the operation or per-

formance of the POTW. These general prohibitions apply to all such Users of a POTW whether or not the User is subject to National Categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements. A user may not contribute the following substances to any POTW:

- a) Any liquids, solids or gases which by reason of their nature or quantity are, or may be, sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the POTW or to the operation of the POTW. At no time, shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five percent (5%) nor any single reading over ten percent (10%) of the Lower Explosive Limit (LEL) of the meter. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides and any other substances which the City, the State or EPA has notified the User is a fire hazard or a hazard to the system.
- b) Solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater treatment facilities such as, but not limited to: grease, garbage with particles greater than one-half inch $(\frac{1}{2}")$ in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, staw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastics, gas, tar, asphalt residues, residues from refining, or processing of fuel or lubricating oil, mud, or glass grinding or polishing wastes.
- c) Any wastewater having a pH less than 5.0, unless the POTW is specifically designed to accommodate such wastewater, or wastewater having any other corrosive property capable of causing damage or hazard to structures, equipment, and/or personnel of the POTW.
- d) Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, create a toxic effect in the receiving waters of the POTW, or to exceed the limitation set forth in a Categorical Pretreatment Standard. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act.
- e) Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.
- f) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to

the POTW cause the POTW to be in non-compliance with sludge use or disposal criteria, guidelines or regulations developed under Section 405 of the Act; any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the sludge management method being used.

- g) Any substance which will cause the POTW to violate its NPDES and/or State Disposal System Permit or the receiving water quality standards.
- h) Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.
- i) Any wastewater having a temperature which will inhibit biological activity in the POTW treatment plant resulting in Interference, but in no case wastewater with a temperature at the introduction into the POTW which exceeds 40°C (104°F) unless the POTW treatment plant is designed to accommodate such temperature.
- j) Any pollutants, including oxygen demanding pollutants (BOD, etc.) released at a flow rate and/or pollutant concentration which a user knows or has reason to know will cause Interference to the POTW. In no case shall a slug load have a flow rate or contain concentration or qualities of pollutants that exceed for any time period longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration, quantities, or flow during normal operation.
- k) Any wastewater containing any radioactive wastes or isotopes of such halflife or concentration as may exceed limits established by the Superintendent in compliance with applicable State or Federal regulations.
- 1) Any wastewater which causes a hazard to human life or creates a public nuissance.

When the Superintendent determines that a User(s) is contributing to the POTW, any of the above enumerated subtances in such amounts as to Interfere with the operation of the POTW, the Superintendent shall: 1) Advise the User(s) of the impact of the contribution on the POTW; and 2) Develop effluent limitation(s) for such User to correct the Interference with the POTW.

2.2 Federal Categorical Pretreatment Standards

Upon the promulgation of the Federal Categorical Pretreatment Standards for a particular industrial subcategory, the Federal Standard, if more stringent than limitations imposed under this Ordinance for sources in that subcategory, shall immediately supersede the limitations imposed under this Ordinance. The Superintendent shall notify all affected Users of the applicable reporting requirements under 40 CFR, Section 403.12.

2.3 Modification of Federal Categorical Pretreatment Standards

Where the City's wastewater treatment system achieves consistent removal of pollutants limited by Federal Pretreatment Standards, the City may apply to the Approval Authority for modification of specific limits in the Federal Pretreatment Standards. "Consistent Removal" shall mean reduction in the amount of a pollutant or alteration of the nature of the pollutant by the wastewater treatment system to a less toxic or harmless state in the effluent which is achieved by the system 95 percent of the samples taken when measured according to the procedures set forth in Section 403.7(c)(2) of (Title 40 of the Code of Federal Regulations, Part 403) - "General Pretreatment Regulations for Existing and New Sources of Pollution" promulgated pursuant to the Act. The City may then modify pollutant discharge limits in the Federal Pretreatment Standards if the requirements contained in 40 CFR Part 403, Section 403.7 are fulfilled and prior approval from the Approval Authority is obtained.

2.4 Specific Pollutant Limitations (optional)

No person shall discharge wastewater containing in excess of:

mg/l	arsenic
mg/1	cadmium
mg/1	copper
mg/1	cyanide
mg/1	lead
mg/1	mercury
	nickel
	silver
mg/1	total chromium
	zinc
mg/1	total identifiable chlorinated hydrocarbons
mg/1	phenolic compounds which cannot be removed by the City's
	wastewater treatment processes

2.5 State Requirements

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in this ordinance.

2.6 City's Right of Revision

The City reserves the right to establish by ordinance more stringent limitations or requirements on discharges to the wastewater disposal system if deemed necessary to comply with the objectives presented in Section 1.1 of this Ordinance.

2.7 Excessive Discharge

No User shall ever increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treat-

ment to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards, or in any other pollutant-specific limitation developed by the City or State. (Comment: Dilution may be an acceptable means of complying with some of the prohibitions set forth in Section 2.1, e.g. the pH prohibition.)

2.8 Accidental Discharges

Each User shall provide protection from accidental discharge of prohibited materials or other substances regulated by this Ordinance. Facilities to prevent accidental discharge of prohibited materials shall be provided and maintained at the owner or user's own cost and expense. Detailed plans showing facilities and operating procedures to provide this protection shall be submitted to the City for review, and shall be approved by the City before construction of the facility. All existing Users shall complete such a plan by January 1, 1983. No user who commences contribution to the POTW after the effective date of this ordinance shall be permitted to introduce pollutants into the system until accidental discharge procedures have been approved by the City. Review and approval of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of this Ordinance. In the case of an accidental discharge, it is the responsibility of the user to immediately telephone and notify the POTW of the incident. The notification shall include location of discharge, type of waste, concentration and volume, and corrective actions.

Written Notice Within five (5) days following an accidental discharge; the User shall submit to the Superintendent a detailed written report describing the cause of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to person or property; nor shall such notification relieve the user of any fines, civil penalties, or other liability which may be imposed by this article or other applicable law.

Notice to Employees: A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees whom to call in the event of a dangerous discharge. Employers shall insure that all employees who may cause or suffer such a dangerous discharge to occur are advised of the emergency notification procedure.

SECTION 3 - FEES

3.1 Purpose

It is the purpose of this chapter to provide for the recovery of costs from Users of the City's wastewater disposal system for the implementation of the program established herein. The applicable charges or fees shall be set forth the City's Schedule of Charges and Fees.

3.2 Charges and Fees

The City may adopt charges and fees which may include:

- a) fees for reimbursement of costs of setting up and operating the City's Pretreatment Program;
- b) fees for monitoring, inspections and surveillance procedures;
- c) fees for reviewing accidental discharge procedures and construction;
- d) fees for permit applications;
- e) fees for filing appeals;
- f) fees for consistent removal (by the City) of pollutants otherwise subject to Federal Pretreatment Standards;
- g) other fees as the City may deem necessary to carry out the requirements contained herein.

These fees relate solely to the matters covered by this Ordinance and are separate from all other fees chargeable by the City.

SECTION 4 - ADMINISTRATION

4.1 <u>Wastewater Dischargers</u>

It shall be unlawful to discharge without a (city) permit to any natural outlet within the (City of _____), or in any area under the jurisdiction of said (city), and/or to the POTW any wastewater except as authorized by the Superintendent in accordance with the provisions of this Ordinance.

4.2 Wastewater Contribution Permits

4.2.1 General Permits

All significant users proposing to connect to or to contribute to the POTW shall obtain a Wastewater Discharge Permit before connecting to or contributing to the POTW. All existing significant users connected to or contributing to the POTW shall obtain a Wastewater Contribution Permit within 180 (optional) days after the effective date of this Ordinance.

4.2.2 Permit Application

Users required to obtain a Wastewater Contribution Permit shall complete and file with the City, an application in the form prescribed by the City, and accompanied by a fee of _____. Existing users shall apply for a Wastewater Contribution Permit within 30 (optional) days after the

effective date of this Ordinance, and proposed new users shall apply at least 90 (optional) days prior to connecting to or contributing to the POTW. In support of the application, the user shall submit, in units and terms appropriate for evaluation, the following information:

- a) Name, address, and location, (if different from the address);
- b) SIC number according to the Standard Industrial Classification Manual, Bureau of the Budget, 1972, as amended;
- c) Wastewater constituents and characteristics including but not limited to those mentioned in Section 2 of this Ordinance as determined by a reliable analytical laboratory; sampling and analysis shall be performed in accordance with procedures established by the EPA pursuant to Section 304(g) of the Act and contained in 40 CFR, Part 136, as amended;
- d) Time and duration of contribution;
- e) Average daily and 3 minute peak wastewater flow rates, including daily, monthly and seasonal variations if any;
- f) Site plans, floor plans, mechanical and plumbing plans and details to show all sewers, sewer connections, and appurtenances by the size, location and elevation;
- g) Description of activities, facilities and plant processes on the premises including all materials which are or could be discharged;
- h) Where known, the nature and concentration of any pollutants in the discharge which are limited by any City, State, or Federal Pretreatment Standards, and a statement regarding whether or not the pretreatment standards are being met on a consistent basis and if not, whether additional Operation and Maintenance (O&M) and/or additional pretreatment is required for the User to meet applicable Pretreatment Standards;
- i) If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards; the shortest schedule by which the User will provide such additional pretreatment. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard:

The following conditions shall apply to this schedule:

- (1) The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable Pretreatment Standards (e.g., hiring an engineer, completing preliminary plans, completing final plans, executing contract for major components, commencing construction, completing construction, etc.).
- (2) No increment referred to in paragraph (1) shall exceed 9 months.

- (3) Not later than 14 days following each date in the schedule and the final date for compliance, the User shall submit a progress report to the Superintendent including, as a minimum, whether or not it complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the User to return the construction to the schedule established. In no event shall more than 9 months elapse between such progress reports to the Superintendent.
- j) Each product produced by type, amount, process or processes and rate of production;
- Type and amount of raw materials processed (average and maximum per day);
- 1) Number and type of employees, and hours of operation of plant and proposed or actual hours of operation of pretreatment system;
- m) Any other information as may be deemed by the City to be necessary to evaluate the permit application.

The City will evaluate the data furnished by the user and may require additional information. After evaluation and acceptance of the data furnished, the City may issue a Wastewater Contribution Permit subject to terms and conditions provided herein.

4.2.3 Permit Modifications

Within 9 months of the promulgation of a National Categorical Pretreatment Standard, the Wastewater Contribution Permit of Users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a User, subject to a National Categorical Pretreatment Standard, has not previously submitted an application for a Wastewater Contribution Permit as required by 4.2.2, the User shall apply for a Wastewater Contribution Permit within 180 days after the promulgation of the Applicable National Categorical Pretreatment Standard. In addition, the User with an existing Wastewater Contribution Permit shall submit to the Superintendent within 180 days after the promulgation of an applicable Federal Categorical Pretreatment Standard the information required by paragraph (h) and (i) of Section 4.2.2.

4.2.4 Permit Conditions

Wastewater Discharge Permits shall be expressly subject to all provisions of this Ordinance and all other applicable regulations, user charges and fees established by the City. Permits may contain the following:

- a) The unit charge or schedule of user charges and fees for the wastewater to be discharged to a community sewer;
- b) Limits on the average and maximum wastewater constituents and characteristics;

- c) Limits on average and maximum rate and time of discharge or requirements for flow regulations and equalization.
- d) Requirements for installation and maintenance of inspection and sampling facilities;
- e) Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types and standards for tests and reporting schedule;
- f) Compliance schedules;
- g) Requirements for submission of technical reports or discharge reports (see 4.3);
- h) Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the City, and affording City access thereto:
- i) Requirements for notification of the City or any new introduction of wastewater constitutents or any substantial change in the volume or character of the wastewater constitutents being introduced into the wastewater treatment system.
- j) Requirements for notification of slug discharges as per 5.2;
- 1) Other conditions as deemed appropriate by the City to ensure compliance with this Ordinance.

4.2.5 Permits Duration

Permits shall be issued for a specified time period, not to exceed five (5) (optional) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date. The user shall apply for permit reissuance a minimum of 180 days prior to the expiration of the user's existing permit. The terms and conditions of the permit may be subject to modification by the City during the term of the permit as limitations or requirements as identified in Section 2 are modified or other just cause exists. The User shall be informed of any proposed changes in his permit at least 30 days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

4.2.6 Permit Transfer

Wastewater Discharge Permits are issued to a specific User for a specific operation. A wastewater discharge permit shall not be reassigned or transferred or sold to a new owner, new User, different premises, or a new or changed operation without the approval of the City. Any succeeding owner or User shall also comply with the terms and conditions of the existing permit.

4.3 Reporting Requirements for Permittee

4.3.1 Compliance Date Report

Within 90 days following the date for final compliance with applicable Pretreatment Standards or, in the case of a New Source, following commencement of the introduction of wastewater into the POTW, any User subject to Pretreatment Standards and Requirements shall submit to the Superintendent a report indicating the nature and concentration of all pollutants in the discharge from the regulated process which are limited by Pretreatment Standards and Requirements and the average and maximum daily flow for these process units in the User facility which are limited by such Pretreatment Standards or Requirements. The report shall state whether the applicable Pretreatment Standards or Requirements are being met on a consistent basis and, if not, what additional O&M and/or pretreatment is necessary to bring the User into compliance with the applicable Pretreatment Standards or Requirements. This statement shall be signed by an authorized representative of the Industrial User, and certified to by a qualified professional.

4.3.2 Periodic Compliance Reports

- (1) Any User subject to a Pretreatment Standard, after the compliance date of such Pretreatment Standard, or, in the case of a New Source, after commencement of the discharge into the POTW, shall submit to the Superintendent during the months of June and December, unless required more frequently in the Pretreatment Standard or by the superintendent, a report indicating the nature and concentration, of pollutants in the effluent which are limited by such Pretreatment Standards. In addition, this report shall include a record of all daily flows which during the reporting period exceeded the average daily flow reported in paragraph (b)(4) of this section. At the discretion of the superintendent and in consideration of such factors as local high or low flow rates, holidays, budget cycles, etc., the superintendent may agree to alter the months during which the above reports are to be submitted.
- The Superintendent may impose mass limitations on Users which are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases where the imposition of mass limitations are appropriate. In such cases, the report required by subparagraph (1) of this paragraph shall indicate the mass of pollutants regulated by Pretreatment Standards in the effluent of the User. These reports shall contain the results of sampling and analysis of the discharge, including the flow and the nature and concentration, or production and mass where requested by the Superintendent, of pollutants contained therein which are limited by the applicable Pretreatment Standards. The frequency of monitoring shall be prescribed in the applicable Pretreatment Standard. All analysis shall be performed in accordance with procedures established by the Administrator pursuant to section 304(g) of the Act and contained in 40 CFR. Part 136 and amendments thereto or with any other test procedures approved by the Administrator. Sampling shall be performed in accordance with the techniques approved by the Administrator.

(Comment: Where 40 CFR, Part 136 does not include a sampling or analytical technique for the pollutant in question sampling and analysis shall be performed in accordance with the procedures set forth in the EPA publication, Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants, April, 1977, and amendments therto, or with any other sampling and analytical procedures approved by the Administrator.)

4.4 Monitoring Facilities

The City shall require to be provided and operated at the User's own expense, monitoring facilities to allow inspection, sampling, and flow measurement of the building sewer and/or internal drainage systems. The monitoring facility should normally be situated on the User's premises, but the City may, when such a location would be impractical or cause undue hardship on the User, allow the facility to be constructed in the public street or sidewalk area and located so that it will not be obstructed by landscaping or parked vehicles.

There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the user.

Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the City's requirements and all applicable local construction standards and specifications. Construction shall be completed within 90 days following written notification by the City.

4.5 Inspection and Sampling

The City shall inspect the facilities of any User to ascertain whether the purpose of this Ordinance is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the City or their representative ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, records examination or in the performance of any of their duties. The City, Approval Authority and (where the NPDES State is the Approval Authority). EPA shall have the right to set up on the User's property such devices as are necessary to conduct sampling inspection, compliance monitoring and/or metering operations. Where a User has security measures in force which would require proper identification and clearance before entry into their premises, the User shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the City, Approval Authority and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

4.6 Pretreatment

Users shall provide necessary wastewater treatment as required to comply with this Ordinance and shall achieve compliance with all Federal Categorical Pretreatment Standards within the time limitations as specified by the Federal Pretreatment Regulations. Any facilities required to pretreat wastewater to a level acceptable to the City shall be provided, operated, and maintained at the User's expense. Detailed plans showing the pretreatment facilities and operating procedures shall be submitted to the City for review, and shall be acceptable to the City before construction of the facility. The review of such plans and operating procedures will in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the City under the provisions of this Ordinance. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be acceptable to the City prior to the user's initiation of the changes.

The City shall annually publish in the _______ newspaper a list of the Users which were not in compliance with any Pretreatment Requirements or Standards at least once during the 12 previous months. The notification shall also summarize any enforcement actions taken against the user(s) during the same 12 months.

All records relating to compliance with Pretreatment Standards shall be made available to officials of the EPA or Approval Authority upon request.

4.7 Confidential Information

Information and data on a User obtained from reports, questionnaires, permit applications, permits and monitoring programs and from inspections shall be available to the public or other governmental agency without restriction unless the User specifically requests and is able to demonstrate to the satisfaction of the City that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the User.

When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to this Ordinance, the National Pollutant Discharge Elimination System (NPDES) Permit, State Disposal System permit and/or the Pretreatment Programs; provided, however, that such portions of a report shall be available for use by the State or any state agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

Information accepted by the City as confidential, shall not be transmitted to any governmental agency or to the general public by the City until and unless a ten-day notification is given to the User.

SECTION 5 - ENFORCEMENT

5.1 Harmful Contributions

The City may suspend the wastewater treatment service and/or a Wastewater Contribution Permit when such suspension is necessary, in the opinion of the City, in order to stop an actual or threatened discharge which presents or may

present an imminent or substantial endangerment to the health or welfare of persons, to the environment, causes Interference to the POTW or causes the City to violate any condition of its NPDES Permit.

Any person notified of a suspension of the wastewater treatment service and/or the Wastewater Contribution Permit shall immediately stop or eliminate the contribution. In the event of a failure of the person to comply voluntarily with the suspension order, the City shall take such steps as deemed necessary including immediate severance of the sewer connection, to prevent or minimize damage to the POTW system or endangerment to any individuals. The City shall reinstate the Wastewater Contribution Permit and/or the wastewater treatment service upon proof of the elimination of the non-complying discharge. A detailed written statement submitted by the user describing the causes of the harmful contribution and the measures taken to prevent any future occurrence shall be submitted to the City within 15 days of the date of occurrence.

5.2 Revocation of Permit

Any User who violates the following conditions of this Ordinance, or applicable state and federal regulations, is subject to having his permit revoked in accordance with the procedures of Section 5 of this Ordinance:

- a) Failure of a User to factually report the wastewater constituents and characteristics of his discharge;
- b) Failure of the User to report significant changes in operations, or wastewater constituents and characteristics;
- c) Refusal of reasonable access to the User's premises for the purpose of inspection or monitoring; or,
- d) Violation of conditions of the permit.

5.3 Notification of Violation

Whenever the City finds that any User has violated or is violating this Ordinance, wastewater contribution permit, or any prohibition, limitation of requirements contained herein, the City may serve upon such person a written notice stating the nature of the violation. Within 30 days of the date of the notice, a plan for the satisfactory correction thereof shall be submitted to the City by the User.

5.4 Show Cause Hearing

5.4.1

The City may order any User who causes or allows an unauthorized discharge to enter the POTW to show cause before the City Council why the proposed enforcement action should not be taken. A notice shall be served on the User specifying the time and place of a hearing to be held by the City Council regarding the violation, the reasons why the action

is to be taken, the proposed enforcement action, and directing the User to show cause before the City Council why the proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail (return receipt requested) at least (ten) days before the hearing. Service may be made on any agent or officer of a corporation.

5.4.2

The City Council may itself conduct the hearing and take the evidence, or may designate any of its members or any officer or employee of the (assigned department) to:

- a) Issue in the name of the City Council notices of hearings requesting the attendance and testimony of witnesses and the production of evidence relevant to any matter involved in such hearings;
- b) Take the evidence;
- c) Transmit a report of the evidence and hearing, including transcripts and other evidence, together with recommendations to the City Council for action thereon.

5.4.3

At any hearing held pursuant to this Ordinance, testimony taken must be under oath and recorded stenographically. The transcript, so recorded, will be made available to any member of the public or any party to the hearing upon payment of the usual charges thereof.

5.4.4

After the City Council has reviewed the evidence, it may issue an order to the User responsible for the discharge directing that, following a specified time period, the sewer service be discontinued unless adequate treatment facilities, devices or other related appurtenances shall have been installed on existing treatment facilities, devices or other related appurtenances are properly operated. Further orders and directives as are necessary and appropriate may be issued.

5.5 Legal Action

If any person discharges sewage, industrial wastes or other wastes into the city's wastewater disposal system contrary to the provisions of this Ordinance, Federal or State Pretreatment Requirements, or any order of the City, the City Attorney may commence an action for appropriate legal and/or equitable relief in the (Circuit) Court of this county.

SECTION 6 - PENALTY: COSTS

6.1 Civil Penalties

Any User who is found to have violated an Order of the City Council or who willfully or negligently failed to comply with any provision of this Ordinance, and the orders, rules, regulations and permits issued hereunder, shall be fined not less than (One Hundred Dollars) (optional) nor more than (One Thousand Dollars) (optional) for each offense. Each day on which a violation shall occur or continue shall be deemed a separate and distinct offense. In addition to the penalties provided herein, the City may recover reasonable attorneys' fees, court costs, court reporters' fees and other expenses of litigation by appropriate suit at law against the person found to have violated this Ordinance or the orders, rules, regulations, and permits issued hereunder.

6.2 Falsifying Information

Any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to this Ordinance, or Wastewater Contribution Permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this Ordinance, shall, upon conviction, be punished by a fine of not more than \$1,000 or by imprisonment for not more than six (6) months, or by both.

SECTION 7 - SEVERABILITY

If any provision, paragraph, word, section or article of this Ordinance is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words, sections, and chapters shall not be affected and shall continue in full force and effect.

SECTION 8 - CONFLICT

All other Ordinances and parts of other Ordinances inconsistent or conflicting with any part of this Ordinance are hereby repealed to the extent of such inconsistency or conflict.

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INTRODUCED th	a d	av of		10		
FIRST READING						
SECOND READIN						
PASSED this _						
AYES:		·	7			
NAYS:						
ABSENT:						
NOT VOTING:						
APPROVED by m	e this	day	o f	•	19 .	
ATTEST: d						
SECTION 10 - INDUS	TRIAL S	EWER CO	NNECTION	APPLIC	ATION	
To the (city or to	wn) of					:
The undersigned be						of the
property located a	t					
door honoby posses	t a per	mit to			an indu:	strial
does hereby reques	-					
sewer connection s					,	which

- 1. A plan to the property showing accurately all sewers and drains now existing is attached hereunto as Exhibit "A".
- 2. Plans and specifications covering any work proposed to be performed under this permit is attached hereunto as Exhibit "B".

	3.	A complete schedule of all process waters and industrial wastes produced or expected to be produced at said property, including a description of the character of each waste, the daily volume and maximum rates of discharge, representative analyses, and compliance with any applicable Pretreatment Standard or Requirements, is attached hereunto as Exhibit "C".
	4.	The name and address of the person or firm who will perform the work covered by this permit is
In	consid	deration of the granting of this permit the undersigned agrees:
	1.	To furnish any additional information relating to the installation or use of the industrial sewer for which this permit is sought as may be requested by the City.
	2.	To accept and abide by all provisions of Ordinance No of the City of, and of all other pertinent Ordinances or regulations that may be adopted in the future.
	3.	To operate and maintain any waste pretreatment facilities, as may be required as a condition of the acceptance into the wastewater treatment system of the industrial wastes involved, in an efficient manner at all times, and at no expense to the City.
	4.	To cooperate at all times with the City and his representatives in their inspecting, sampling, and study of the industrial wastes, and any facilities provided for pretreatment.
	5.	To notify the City immediately in the event of any accident, or other occurrence that occasions contributor to the wastewater treatment system of any wastewater or substances prohibited or not covered by this permit.
		Date:Signed
		\$ inspection fee paid
		Application approved and permit granted:

Signed____

Date:_____

SECTION 11 - WASTEWATER DISCHARGE PERMIT

City	of	· · · · · · · · · · · · · · · · · · ·	
Department	t of	Public	Works
WASTEWATER	DIS	CHARGE	PERMIT

Permit No.		
In accordance with all ter	ms and conditions of the	City Code,
Part, Article,	, Şection, et.	seq., and also
with any applicable provisions	of Federal or state law or regul	ation;
Permission Is Hereby Granted To		
Classified by SIC No.		
For the contribution of		•
into the City of	sewer lines at	
	accordance with the application in the office of the	
	in conformity with plans, speci	
other data submitted to the (_) in support of the above appli	cation, all of
which are filed with and consid	ered as part of this permit, tog	ether with the
following named conditions and	requirements.	
	Effective this day of	, 19
	day or	

Permi	t	No.	

•			
	Limitati		
	Wastewater	Strength	
•			
		le)	
	ا ا ا ا	Sample)	
	num Conc.) - 24 hour Proportiona isite Sample	s n Sé	Monitoring
	nc 4 1 ort Sai	laximum Instantaneous Concentration (mg/l) (Grab	Requirements
	Co - 2 opo te	ane rat (Gr	(5 5V 55)
	um) - Pro	um nta nta	(E, SV, SC)
	m / M od	Maximum Instant Concent (mg/l)	
Parameters (mg/1)	Maximum Conc (mg/l) - 24 Flow Proport Composite Sa	Maximum Instantaneous Concentration (mg/l) (Grab	
Aluminum-dissolved (Al)			
Antimony (Sb)			
Arsenic (As)			
Barium (Ba)			
Boron (B)			
Cadmium (Cd)	<u> </u>		
Chromium-total (Cr)			
Chromium-hexavalent (Cr5+)			
Cobalt (Co)			
Copper (Cu)		<u> </u> 	
Cyanide (CN)		<u> </u>	
Fluoride (F)			
Iron (Fe)			
Lead (Pb)			
Manganese (Mn)			
Mercury (Hg)	-		
Nickel (Ni)			
Phenois		ļ	
Selenium (Se)			
Silver (Ag)			
Titanium-dissolved (Ti)	<u> </u>		
Zinc (Zn) .			
Total Kjeldahl Nitrogen (TKN)			
Oil & Grease (Petroleum &/or mineral)			
MBAS			
Total Dissolved Solids			
Temperature-maximum (degrees C)			
pH-maximum (pH units)			
pH-minimum (pH units)			
Biochemical Oxygen Demand		<u> </u>	
Chemical Oxygen Demand		1	
Suspended Solids			
Flow - (MGD)			

E - Enforcement Monitoring
SV - Surveillance Monitoring
SC - Surcharge Monitoring

Permit	No.	
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ADDENDUM I

Monitoring Schedule

Permit	No.	

ADDENDUM II

Compliance Schedule

APPENDIX E

MONITORING EQUIPMENT COST INFORMATION

MONITORING EQUIPMENT COST INFORMATION

Introduction

This section presents an overview of the different types of equipment and personnel which may be used by a POTW in formulating its pretreatment program. Equipment needs may include: laboratory, flow measurement, and sampling equipment. Personnel needs during various stages in the development of a program might include field technicians, chemists, lawyers, accountants, and engineers.

A number of manufacturers and suppliers were contacted to obtain costs for various types of equipment. Commercial laboratories were consulted as to the costs of contracting out industrial wastewater analyses. Additionally, the cities of Buffalo, Muncie, and Grand Rapids supplied labor and equipment costs incurred in the development and operation of their pretreatment programs.

Equipment and Personnel

Organic and Inorganic Analysis Equipment

Both the development and implementation of a pretreatment program may consist of analyzing industrial wastewaters for the 129 toxic pollutants and any other inhibitory or interfering pollutants. Industrial wastewater analyses may require additional specialized equipment beyond the normal wet chemistry equipment currently contained within most POTW laboratories. Particularly, the list of 129 toxic pollutants contains a number of organic and inorganic pollutants which are not normally included within a POTW's NPDES monitoring requirements or routine in-plant testing analyses.

Conventional wet chemistry techniques for the analysis of heavy metals are available but are time consuming and expensive, if performed routinely. The primary instrument used in determining the concentrations of heavy metals in wastewater samples is the atomic absorption spectrophotometer (AA). Atomic absorption methods provide for the analyses of metals with minimum sample preparation and, in most instances, concentrations of the metals in the parts per billion range can be detected. Price estimates for AA units range from \$10,000 to \$28,000. Additional items such as hollow cathode tubes, an air filter and hood, gas pressure regulators, etc. are needed to set up an operable unit. The necessary accessories required to meet accuracy and detection limit guidelines may add another \$3,000 to \$5,000 to the cost of the unit. Therefore, a typical AA unit capable of performing analyses for all the heavy metals within desired accuracy and detection limit ranges may cost on the order of \$18,000 to \$25,000.

Gas plasma units and metal analyzers are highly sophisticated and expensive types of equipment also used in the analyses of metals. The main advantage of these units are that they are automated resulting in increased speed and accuracy. Prices for these units range from \$50,000 to \$100,000. The lifespan of AA units range from 10 to 15 years. Manufacturers recommend that a

degreed chemist be responsible for operating an AA unit although some of the simpler models may be operated by a technician with extensive wastewater lab experience. The salary range for an AA operator may range from \$10,000 to \$15,000. The more sophisticated gas plasma and metal analyzer units would require more experienced operators.

Gas chromatography (GC) is the most prevalent technique used in analyzing organics in wastewaters. Complete GC units range in price from \$50,000 to \$250,000. The topline GC unit has many features such as a memory, data storage, and a printer which saves the operator time in performing the organic analyses. Any GC unit requires the operator to interpret the readout of the machine to determine the presence (or absence) and concentration of individual organic pollutants. A GC operator, therefore, may require substantial training and experience such as a 4-year college level or beyond. Typical salaries for GC operators may range from \$12,000 to \$20,000.

To increase the speed and accuracy of organic analyses, a mass spectrometer (MS) can be added onto a GC unit. Prices for GC-MS units range from \$50,000 to \$250,000. Generally, the more automated the unit--the higher the price. A \$100,000 to \$250,000 unit is usually fully automated and includes extras such as computer printout, hookups to outside laboratory data bases, mag-card tape storage, etc. Operators of GC-MS units usually have bachelors or masters degrees in chemistry and occasionally doctorates. The salaries of GC-MS operators may range from \$15,000 to \$25,000 depending upon the scope of organics analyzed.

Commercial Laboratory Costs

An alternative available to POTWs for the analysis of metals and organics is to send out the samples to commercial labs. A POTW should perform a cost-effectiveness analysis comparing the costs of purchasing equipment such as AA and GC units and employing qualified personnel versus entering a contract for the services of a commercial lab. Although the commercial labs contacted for this study offered a wide variety of services and expertise, ll of the labs indicated that available EPA analytical techniques would be used for metal and organic analyses. One lab contacted indicated that the complete list of 129 toxics could be analyzed for \$1,000. This lab also would collect (locally) 24-hour to 3-day composite or discrete samples at a cost of \$300 to \$500.

Another lab, which would use a \$250,000 computerized GC-MS operated by a Ph.D. in chemistry, quoted a price of \$1,200 for all the organics on the list of 129 toxic pollutants. An analysis for the toxic metals on the list would cost an additional \$300.

A third lab stated that all 129 toxics would be analyzed for \$1,800. Independent metals testing would cost an average of \$10 to \$12 per metal or approximately \$150 for all the metals in a sample. A fourth lab contacted does not perform organic analyses. This lab charges from \$9 to \$16 per metal analysis, depending upon the metal being analyzed. Summarizing, the costs quoted by commercial labs for the analysis of all 65 toxic organics and inorganics ranged from \$1,000 to \$1,800 and for all the metals from \$150 to \$300. The prices charged by these commercial labs are probably much higher than the costs that would be incurred by a POTW laboratory if the analyses were per-

formed daily. However, for the POTW with limited analyses requirements, the costs of equipment depreciation and operation and the salary costs of qualified personnel may be more prohibitive on a per sample basis.

Sampling Collection Costs

Whether the POTW performs the analysis of samples in-house or sends the samples to a commercial lab, the industrial wastewater samples must be collected. Three types of industrial watewater samples can be collected by a POTW:

- (1) Grab samples--a single volume of wastewater is obtained. This type of sample does not account for changes in industrial wastewater characteristics over time.
- (2) Simple composite samples--equal volume grab samples are collected in present time intervals and combined into a single reservoir or collected as individual (discrete) samples. This type of sample provides a partial evaluation of the variability of wastewater composition with time.
- (3) Flow proportioned composits samples—incremental samples with sample volumes proportional to flow are collected. This type of sample, when analyzed and compared to total flow, provides the most accurate measure of wastewater quality and pollutant loading.

All three types of sampling can be accomplished either manually or automatically. In general, manual sampling devices are not commercially available. A simple manual sampler can be fabricated by attaching a stoppered bottle to an extendable pole. The bottle should be hinged so that it can be aligned parallel to the wastewater flow and a string should be attached to the bottle stopper so it can be removed when the sample bottle is submerged. Grab samples and simple composite samples can be readily obtained with this device. Flow proportioned composite samples would require the conjunctive use of a flow-measuring device.

Portable automatic sampling devices are available which consists of a collector bottle and timing and flow controls to enable uniform samples to be taken at specified periods of time. Simple composite samplers of this type range in cost from \$1,000 to \$1,500. Portable discrete composite samplers (non-flow proportioned) operate on a different basis as each sample is collected in individual bottles at present time intervals. These contain a rotating rack with individual sample bottles; the discrete composite samplers with a single reservoir. Both types of composite samplers can be combined with an external mechanical flow-measuring device to obtain flow proportioned composite samples.

Many of the organics on the list of 129 toxic pollutants are hydrocarbon or chlorine-based compounds (e.g., chlorinated benzenes, phenols, PCB's, etc.). As a result, samples with small concentrations of these toxic substances may be contaminated by contact with most common plastics; possibly invalidating the analysis of the samples. Toxic options for the samplers described above include teflon or glass-constructed materials for any parts which might come

into contact with the sample. The costs of including toxic options increase the price of the above samplers from \$600 to \$900.

Portable pH meters may also be used in sampling industrial wastewaters. pH meters range in cost from \$100 for a glass electrode--needle indicator model to \$1,000 for a highly accurate, digital readout model. Multi-purpose units which combine pH, DO, and conductivity functions range in price from \$400 to \$600.

Various types of equipment are available for measuring flows in pipes and manholes including flumes, weirs, and miscellaneous mechanical devices. Portable flumes which can be quickly inserted into pipes ranging in size from 6" to 24" cost from \$200 to \$700 depending upon the pipe size. A complete set of weirs which will enable the measurement of flow in pipes from 6" to 27" costs approximately \$400 to \$600. Individual weirs for different pipe sizes can be purchased for \$50 to \$200.

Numerous mechanical devices are commercially available for the measurement of flow. Electromechanical and ultrasonic recorders can be used to continuously record the level of flow over weirs or flumes. The level of flow can be converted to a flow rate by interpreting a conversion table for the specific weir or flume used. Additionally, both the electromechanical and ultrasonic level recorders can be fitted with internal controls which convert flow levels to flow rates. Electromechanical level recorders range in price from \$1,200 to \$2,000; adding internal controls to convert the level of flow to a flow rate may increase the price by \$200 to \$500. Ultrasonic level recorders cost approximately \$2,000 to \$2,500 and ultrasonic flow rate recorders cost from \$2,300 to \$3,000.

Safety Equipment Costs

Safety equipment for sampling industrial wastewaters should include, at a minimum: hardhats, safety goggles, rubber gloves, safety boots, and other protective clothing, safety harnesses, and first aid kits. Such equipment would range in price from \$150 to \$300.

Other safety equipment needs might include oxygen deficiency meters and explosive and combustible gas detectors. Oxygen deficiency meters range in cost from \$200 for a simple unit to \$700 for a combined meter which detects 0, deficiency and the presence of combustible and explosive gases. Explosive gas meters and combustible gas meters cost from \$250 to \$500. To outfit a sampling crew with a complete set of safety equipment would cost anywhere from \$500 to \$2,000 depending primarily on the types of industries and their sampling locations.

Experienced field technicians will be required to perform the industrial wastewater sampling. All field technicians should be properly trained in sampling techniques and safety procedures. Additionally, the field technician will be required to perform in-plant investigations and may have to testify in court against violators of pretreatment standards. In some cities with operative pretreatment programs, the field technicians collect the samples at the industries and perform the necessary analyses in the wastewater treatment plant laboratory. This methodology may be less expensive than employing

separate personnel for collection and analysis of samples. Additionally, this method ensures a complete "chain of possession" for the industrial samples. Salary ranges for technicians vary from \$8,000 to \$15,000 depending upon the extent of the technician's duties.

Administrative Personnel

The development and operation of a pretreatment program will require highly qualified prsonnel with both technical and administrative abilities. Pretreatment plant operations, knowledge of industrial wastewaters, laboratory analysis techniques, and field sampling and monitoring. Most of these functions would be directed by the Supervisor of a POTW. In larger cities, a staff engineer may head a separate pretreatment department.

Legal assistance may be required in the initial development of the program to revise the ordinance if necessary. Also, accounting assistance may be required to determine an equitable means of financing the pretreatment program. Most POTWs will have staff available either within the POTW staff itself or within other city departments. In many cases, it may be costeffective to have consultants provide services to assist the POTW in developing its pretreatment program.