
FROM: James R. Elder, Director
Office of Water Enforcement and Permits


This manual provides publicly owned treatment works (POTWs) with guidance on the development and issuance of effective industrial user (IU) permits. The need for this guidance has been identified by EPA and approved pretreatment states through audits of local programs during the past several years. There have also been many technical and procedural questions about industrial user permits from control authorities. During program audits, Approval Authorities found that nearly one half of local Control Authorities were issuing inadequate or incomplete control mechanisms. EPA believes that individual industrial user permits are the most effective control mechanism available.

Recognizing the need to address this issue, EPA proposed on November 23, 1988 to amend the General Pretreatment Regulations to include a requirement that POTWs with approved pretreatment programs must issue permits or similar individual control mechanisms to control the discharges from all significant industrial users (53 FR 47632). The proposed amendment also identified certain minimum conditions which EPA has determined must be present in each control mechanism to ensure its effectiveness. This manual has been developed to address and expand upon these minimum requirements and to provide Control Authorities with guidance on how to establish a permit program, procedures for permit issuance, procedures for writing a permit, and requirements for waste haulers.

The Agency expects POTWs to issue effective and enforceable control mechanisms pursuant to 40 CFR §403.8(f)(1)(iii). POTWs that are currently issuing permits are encouraged to use the materials in this manual when drafting new permits or when reissuing existing permits as their terms expire. Upon promulgation of the November 23, 1988 proposed revisions to the General Pretreatment Regulations, control mechanisms should be revised, where necessary, to include the minimum requirements identified in these revisions. For POTWs that are not currently using a permit system, EPA recommends that this manual be used to establish new permitting policies and procedures to ensure that industrial users are adequately controlled.
INDUSTRIAL USER PERMITTING GUIDANCE MANUAL

(A TRAINING MANUAL FOR CONTROL AUTHORITIES TO DEVELOP INDUSTRIAL USER PERMITS)

September 1989

Office of Water
Office of Water Enforcement and Permits

U.S. Environmental Protection Agency
401 M Street, S.W.
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ACKNOWLEDGMENTS

This document was prepared under the technical direction of Mr. Gene Chou, Environmental Engineer, Technical Support Branch, Office of Water Enforcement and Permits, U.S. Environmental Protection Agency. Assistance was provided to EPA by Science Applications International Corporation (SAIC) of McLean, Virginia under EPA Contracts Nos. 68-01-7043 and 68-CR-0066. Ms. Mary Waldron was the SAIC Work Assignment Manager; principal technical authors were: Ms. Mary Waldron, Mr. Mark Charles, and Mr. David Hair. Acknowledgement is also given for the valuable comments received from the review team who donated their time and efforts to make this a more useful document. The review team included: EPA Regional Pretreatment Coordinators, State Pretreatment Coordinators from North Carolina, Virginia, and Washington, and EPA Headquarters staff, Richard Kinch, Roland Dubois, George Utting and Paul Conner. In addition, acknowledgement is given to the many POTWs that contributed their comments and/or the use of portions of their wastewater discharge permits as examples within the guidance manual.
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HOW TO USE THIS MANUAL

PURPOSE

This guidance manual has been prepared by the U.S. Environmental Protection Agency (EPA), Office of Water Enforcement and Permits, to provide a framework for drafting and issuing industrial user permits by Publicly Owned Treatment Works (POTWs) and States with approved pretreatment programs acting as Control Authorities. The purpose of this guidance is to assist new permit writers, experienced permit writers, and legal and administrative personnel who are involved in the implementation of an industrial user permitting program in preparing effective and enforceable industrial user permits.

This manual provides documentation of EPA's recommendations for industrial user permit contents and structure. The manual contains many examples of sections and conditions of a permit, as well as complete sample permits and fact sheets. The goal is to furnish this information to permit writers in a reference manual format which can be used throughout the permitting process.

In addition to the people directly responsible for drafting and issuing permits, legal and administrative support staff should be aware of several aspects of the permitting process. For these individuals, the manual provides background information on requirements of the issuance process and discusses the necessary legal authority required to implement an effective program.

USE

It is recommended that all personnel directly involved with the permit drafting and issuance processes scan the entire manual to get an overview of its contents and structure. In scanning the manual, the reader should note any sections of particular interest to his/her permitting process.
HOW TO USE THIS MANUAL

It is important for new permit writers to read all sections of this manual carefully to learn about each phase of the permit drafting and issuance process. An understanding of each section will provide the inexperienced permit writer with an overview of the typical components of an industrial user permit and the interrelationship between legal authority, permit drafting, public participation, and permit issuance.

Experienced permit writers should carefully study the permitting examples provided to determine if their own permits could be strengthened through modification or addition of the recommended provisions. The manual can also be used as a reference source during subsequent permitting procedures.

The Control Authority’s legal and administrative support personnel should also become familiar with the provisions of the guidance manual with which they will be involved. These individuals should carefully read the background and issuance procedures sections to ensure that their administrative procedures and legal authority are adequate.

The glossary in Appendix C, the list of acronyms immediately following this section, and the index of key words in Part V of the manual are provided to assist the user of this text. The glossary and acronym sections should be consulted whenever terms appear that are unfamiliar to the reader. It may also be helpful to use the index of key words to see how the term is used in context. In addition, the index will allow the user who is familiar with permitting requirements to access specific sections of the manual during the drafting of individual permits.

LIMITATIONS

While this guidance manual gives an overview of the permit writing and issuance processes, it is not intended to address all of the specific determinations which must be made during these processes. Where guidance has previously been developed, this manual references the document which provides...
HOW TO USE THIS MANUAL

the additional information. For example, the use of the Combined Wastestream Formula (CWF) is introduced in this manual, but the specific instructions on how to apply the CWF are not within the scope of a permit writing manual. The permit writer is, therefore, encouraged to use this manual in conjunction with the following EPA guidance documents: 1) the Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program; 2) the Pretreatment Compliance Monitoring and Enforcement Guidance; and 3) the Guidance Manual for Use of Production-Based Standards and the Combined Wastestream Formula [and 51 Federal Register (FR) 21454 and 53 FR 40562]. These documents serve as companion documents to this manual and contain technical guidance on development of local limits, specific information on enforcement of pretreatment standards and requirements, and technical guidance for applying production-based standards using the combined wastestream formula.

Throughout the text of this manual, all references to supplementary guidance material and development documents cite only the document title. Complete citations for all relevant guidance documents are found in the bibliography in Appendix A. Any reference to the Code of Federal Regulations (CFR) is followed by a bracketed citation of the specific section (e.g., [40 CFR Part 403]). References to the Federal Register are also bracketed (e.g., [53 FR Part 40562]).

In general, each Control Authority has pretreatment concerns unique to its own area and which necessitate specific local requirements. Discussion of specific requirements that must be met in order to comply with local or State laws under which a particular Control Authority operates is beyond the scope of this document. The permit writer should, therefore, consult with his/her attorney on these issues.

The National Pretreatment Program continues to evolve and the concepts and procedures recommended here may change with time and experience. EPA
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intends to distribute additions or modifications to this manual that will reflect such changes. These additions or modifications will be dated and formatted so that they can be inserted directly into this manual to replace or append previous sections. Specific questions about this guidance should be addressed to the appropriate State or Regional Pretreatment Coordinator. A list of these coordinators can be found in Appendix B.
LIST OF ACRONYMS

The following is an alphabetical list of all acronyms used in this manual. Its purpose is to serve as a quick reference for those who may be unfamiliar with the lettered short cuts that are commonly used to signify terms and phrases associated with the industrial pretreatment permitting program.

BMR - Baseline Monitoring Report
BOD - Biochemical Oxygen Demand
BPJ - Best Professional Judgment
CFR - Code of Federal Regulations
CIU - Categorical Industrial User
CWA - Clean Water Act (P.L. 95-217 as amended)
CWF - Combined Wastestream Formula
EPA - U.S. Environmental Protection Agency
FR - Federal Register
FWA - Flow Weighted Average
GC - Gas Chromatography
GC/MS - Gas Chromatography/Mass Spectroscopy
gpd - Gallons Per Day
IU - Industrial User
LEL - Lower Explosive Limit
mgd - Million Gallons Per Day
mg/l - Milligrams Per Liter
NPDES permit - National Pollutant Discharge Elimination System permit issued pursuant to Section 402 of the Clean Water Act
O&M - Operation and Maintenance
POTW - Publicly Owned Treatment Works
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<td>Pretreatment Standards for Existing Sources</td>
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<td>Pretreatment Standards for New Sources</td>
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<td>QA</td>
<td>Quality Assurance</td>
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<td>Quality Control</td>
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<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<td>SIC</td>
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<td>SIU</td>
<td>Significant Industrial User</td>
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<td>SWDA</td>
<td>Solid Waste Disposal Act</td>
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<td>TOMP</td>
<td>Toxic Organic Management Plan</td>
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<td>TSS</td>
<td>Total Suspended Solids</td>
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<td>TSDF</td>
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<td>TTO</td>
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PART I

ESTABLISHING A PERMIT PROGRAM
CHAPTER 1
BACKGROUND

The National Pretreatment Program's primary goal is to protect Publicly Owned Treatment Works (POTWs) and the environment from adverse impacts that may occur when pollutants are discharged into a sewage system.

The specific pretreatment program goals are as follows:

- Prevent a pollutant from passing through the treatment works
- Prevent interference with POTW operations, including sludge use and disposal practices and ensuring worker health and safety
- Improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

Pretreatment standards are derived from a number of sources. First, the Clean Water Act [33 USC 1251 et seq.] requires the U.S. Environmental Protection Agency (EPA) to promulgate pretreatment standards and requirements. EPA has responded by establishing general and specific prohibited discharge standards [40 CFR 403.5] applicable to all nondomestic users and by promulgating categorical pretreatment standards applicable to specific industrial categories [40 CFR Parts 405-471]. In addition, Section 403.5(c) of the General Pretreatment Regulations [40 CFR 483.5(c)] requires POTWs to develop local limits where necessary to implement the prohibited discharge standards. Finally, States and POTWs always have the option of establishing more stringent requirements if they so choose. Therefore, the pretreatment program is a mixture of Federal, State, and local standards and requirements.

Section 403.8(a) of the General Pretreatment Regulations [40 CFR 403.8(a)] requires all POTWs with design flows greater than 5 million gallons per day (mgd) and receiving industrial discharges which pass through or interfere with the operation of the POTW, or are otherwise subject to
pretreatment standards, to develop local pretreatment programs (unless the State government has elected to administer the local program). Other POTWs may also be required to implement pretreatment programs, in the discretion of EPA or a State authorized to implement a State pretreatment program. It is assumed for the purposes of this manual that the POTW issuing industrial user permits has an approved pretreatment program and is, thus, the "Control Authority" responsible for administering and enforcing the pretreatment program. The program implementation and enforcement responsibilities are contained in the POTW's National Pollutant Discharge Elimination System (NPDES) permit and failure to adequately fulfill these activities constitutes a NPDES violation and may subject the POTW to penalties.

States with approved pretreatment programs are responsible for overseeing and coordinating the development and approval of local pretreatment programs. Prior to State approval, EPA is the Approval Authority for local pretreatment programs. (NPDES States must receive EPA approval before they may function as Approval Authorities for pretreatment purposes. Prior to this approval, EPA serves as the pretreatment Approval Authority, even where the State issues NPDES permits.) However, States may participate in pretreatment activities even before their State program is approved.

EPA's General Pretreatment Regulations require POTWs to use a control mechanism which ensures that all applicable pretreatment standards and requirements are met by industrial users (IU). It is EPA's experience that, of all possible control mechanisms available, the permit has proven to be the most effective. Permits allow for the systematic integration of all applicable requirements and, if properly structured, may greatly facilitate enforcement of any noncompliance. Therefore, EPA recommends that POTWs satisfy the control mechanism requirement [40 CFR 403.8(f)(1)(iii)] and the requirement that the POTW have procedures to notify industrial users of applicable pretreatment standards [40 CFR 403.8(f)(2)(iii)] by issuing permits to industrial users.
1.1 INDUSTRIAL USER PERMITS

Industrial user permits sanction the discharge of wastewater to a POTW upon condition that permit terms are adhered to. An IU permit is typically effective for only a limited time period, and revocable by the issuing authority at any time for just cause. In addition, the Control Authority's sewer use ordinance will typically include a provision which forbids the discharge of industrial wastewater from a significant industrial user without a current industrial user permit.

An industrial user permit should describe, in a single document, all of the duties and obligations of the permittee including all applicable pretreatment standards and requirements. At a minimum, these should include the prohibited discharge standards and applicable categorical standards, local limits, and monitoring and reporting requirements. Permits should not simply reference the applicable laws, but should contain actual numeric limitations (expressed in terms of concentration or mass of pollutants which may be discharged over a given time period), schedules for monitoring and reporting, and requirements regarding sampling location and scope. These conditions should reflect the most stringent of applicable Federal, State, and local pretreatment standards and requirements.

In the most effective industrial user permit programs, permittees are given an opportunity to challenge permit terms administratively and/or in the courts within only a specified time period after permit issuance. If the permit is not challenged upon issuance, or if all opportunities for challenge of the final permit are exhausted, then it becomes binding on the permittee and any violation of the permit is enforceable simply by proving that the permit included a certain term and that the term was violated.

1.2 WHO ISSUES PERMITS

POTWs with approved pretreatment programs are required to issue industrial user permits or other authorized control mechanisms to their
CHAPTER 1

BACKGROUND

industrial users. Such POTWs are "Control Authorities" in the National pretreatment program. In States with approved State pretreatment programs, the State may assume responsibility for implementation of a City's local pretreatment program [40 CFR 403.10(e)]. In these cases, the State becomes the Control Authority. As of this writing, five States have chosen to implement a State-wide program: Vermont, Connecticut, Alabama, Mississippi, and Nebraska. These States must implement the program to the same extent as the POTWs themselves would otherwise be required to do. Consequently, an industrial user permit may be issued by these States rather than by POTWs. Of course, all States are free to issue such permits or other control mechanisms as they deem necessary to carry out the requirements of State law; this may be particularly appropriate where significant industrial users are discharging to a POTW that does not have an approved pretreatment program.

1.3 WHY PERMITS ARE RECOMMENDED

The Control Authority must be able to regulate through permits, orders, or similar means the contributions of its industrial users in order to ensure that the requirements of the General Pretreatment Regulations are met [40 CFR 403.8(f)(1)(iii)]. EPA believes that in most circumstances a permit program is the most effective mechanism for controlling wastewater discharges.

A permit system provides a mechanism for the Control Authority and its industrial users to determine, at an early stage, the meaning of various pretreatment standards and requirements in terms of specific discharge limitations, monitoring frequency and locations, reporting requirements, etc. Any disagreement between the Control Authority and the industrial user as to pretreatment requirements is resolved at an early date, prior to possible damage to the environment. A permit clearly identifies all of the permittee's responsibilities and obligations in a single document, thereby increasing the understanding of the industrial user with regard to pretreatment requirements. The permit issuance process itself leads to greater understanding and
increased compliance rates by fostering dialogue and development of a one-to-
one relationship between the POTW and an industrial user.

Permit modification procedures can be established to provide flexibility to accommodate changes in the industrial user's circumstances. For example, if an industrial user significantly expands its process operation, the permit can be modified to reflect the increased wastewater discharge. The ability to modify or revoke and reissue a permit also enables the Control Authority to accommodate changes in Federal, State, and local requirements.

Permits are also easily enforced, providing that permit conditions are written in a clear and concise manner and require specific actions on the part of the user. For example, the permit must state that a user "shall" self-monitor rather than stating that the user "should" or "may" monitor. Permits allow the POTW and interested citizens to measure the performance of the user against the permit conditions to determine compliance. In addition, where permittees are given only a limited time period to challenge the substantive content of an industrial user permit, enforcement actions brought after the limited time for review need only demonstrate noncompliance with the specific conditions of the permit; the calculation of applicable discharge limitations from narrative statutory and regulatory provisions is not at issue.
CHAPTER 2

PRELIMINARY DECISIONS

Before a Control Authority can begin issuing permits to industrial users, it must have adequate legal authority to do so, and it must make some basic policy decisions regarding who will be required to obtain permits, when permits will be issued, the effective period or duration for permits, and the circumstances when a permit may be modified or terminated. The following sections address factors which the Control Authority should consider when answering these questions.

2.1 WHO NEEDS A PERMIT

One of the first decisions to be made when establishing a permit program is which industrial users will be required to obtain a permit. EPA strongly recommends that permits at least be issued to all users which are regulated under Federal categorical standards (or similar State requirements) and other users that the Control Authority determines to be "significant." As early as possible, the Control Authority should establish a definition of a significant industrial user (SIU) to avoid the appearance of being arbitrary or discriminatory. To assist Control Authorities in this effort, EPA has published a recommended definition of "significant industrial users" in its Pretreatment Compliance Monitoring and Enforcement Guidance and is proposing to adopt a similar definition in the General Pretreatment Regulations [53 FR 47632]. This definition includes all categorical users, and all noncategorical users whose process flows exceed 25,000 gallons per day, contribute more than five percent of the hydraulic or pollutant loading to a POTW or have a reasonable potential to adversely affect the POTW. EPA has also proposed that Control Authorities be required to issue industrial user permits to these significant industrial users [Id.]. Many Control Authorities have already identified significant industrial users in their ordinances.
CHAPTER 2 PRELIMINARY DECISIONS

Other factors to consider in determining which industrial users should be required to have permits should include:

- Pollutants being introduced
- Spill potential
- Previous compliance history
- Potential for causing POTW to violate its NPDES permit
- Potential for causing difficulties with sludge use or disposal.

In addition, it is recommended that Control Authorities consider permitting all waste haulers. Further discussion on permitting waste haulers appears in Chapter 12. Once the permitting program has become more firmly established, or if additional staff become available, the Control Authority may then decide to expand its program beyond the significant industrial users.

2.2 WHEN TO ISSUE A PERMIT

Once all potential permittees have been identified, another important question to be considered involves the timing of permit issuance. Since permits assist in the imposition and enforcement of pretreatment requirements, they should be issued with as little delay as possible. Where the Control Authority will be permitting several significant industrial users, the permits should be written with staggered expiration dates in order to equalize the permit reissuance workload in the future. Control Authorities should plan to reissue permits before they expire, or provide that an industrial user who has filed a timely application for permit renewal may continue to discharge in accordance with an expired permit in the interim before the Control Authority issues a renewal permit.

Many Control Authorities have required existing significant users to apply for initial permits within six months of the adoption of ordinance provisions authorizing a permit program. New significant industrial users should receive permits before they may begin discharging to the sewer system.
Control Authorities have typically required each significant user to submit an application for permit reissuance at least 90 days prior to the expiration date of the applicable existing permit to provide the Control Authority with sufficient time to adequately evaluate the discharge, develop permit conditions, and issue the permit on or before expiration.

The most important task before the Control Authority is to have all significant industrial users under enforceable control mechanisms which contain specific discharge conditions, based on all available information at the time of permit issuance. In instances where a Control Authority has a large number of significant industrial users, the initial permit issuance, including thorough site inspections, may create a considerable backlog of industrial users waiting to be permitted. The Control Authority may want to issue short-term permits or full-term permits with reopener conditions allowing permit modification when more complete information has been obtained. However, such permits should still contain the minimum elements outlined in Chapter 5 and should be based on all existing data available to the permit writer at that time.

2.3 HOW LONG SHOULD PERMITS BE ISSUED FOR

An industrial user permit should not be issued for an indefinite term. Expiration of the permit initiates reevaluation of the relevant information pertaining to the industrial user and the appropriateness of the permit standards and conditions. EPA suggests that pretreatment permits be limited to a five-year period or less (see EPA's Guidance Manual for POTW Pretreatment Program Development); however, local or State law may mandate a shorter maximum duration. A short-term permit is recommended where the permit writer knows the industrial user is planning a major process change or the business has been advertised for sale. Moreover, a short-term permit is also advisable where the permit writer is aware of proposed changes in the Federal, State, or local pretreatment program which might significantly affect how the user will be regulated in the future (e.g., a revision to include a categorical
pretreatment standard). Alternatively, the permit writer could insert a special condition to "reopen" the permit when the change occurs or, if authorized to do so, may simply choose to modify the permit under its general modification authority (see Section 2.4 below).

2.4 WHEN TO MODIFY OR TERMINATE PERMITS

2.4.1. Permit Modifications

Control Authorities must be able to revise their industrial user permits to implement revisions in Federal, State, and local program requirements and make mid-course corrections or adjustments to reflect significant changes in the user's circumstances. At a minimum, the Control Authority's ordinance should always provide (and the permits should indicate) that they can be modified when, in the opinion of the Control Authority, good cause exists to do so. Generally speaking, permits should not be modified to make discharge standards less stringent where the user is in compliance with the current permit conditions and no changes in operations justifying a relaxation of the permit are involved. Common justifications for modifying permits include the following:

- Alterations in the industrial user's operations, including production rates, which result in new pollutant contributions or substantial changes (increases or decreases) in the amount of pollutants discharged or the volume of wastewaters discharged
- New information which was not available at the time of permit issuance
- New Federal, State, or local requirements promulgated since the time of permit issuance (e.g., revised categorical standards or local limits)
- Correction of technical mistakes, erroneous interpretations of Federal, State or local law, or typographical errors.

To the extent that the Control Authority allows industrial users or interested members of the public to request permit modifications, it is recommended that such requests be made in writing and include facts or reasons...
which support the request. If the Control Authority is required to or routinely provides public notice of draft permits, any proposal for a significant modification should also be subjected to similar public scrutiny. Public participation in the permit issuance process is discussed further in Chapter 3. To avoid nonproductive paperwork, the Control Authority may wish to structure its procedures so that minor modifications to the permit need not be subject to the public notice procedure. The following typically qualify as minor changes:

- Correction of typographical errors
- Imposition of more frequent monitoring or reporting conditions
- Changing interim compliance dates in compliance schedules (which will not affect the final compliance date).

Generally, a permit can be modified in a number of ways. One method, where extensive modifications are necessary, is to reissue a whole new permit with the modifications incorporated. Another method, if only one section of the permit needs modification, may be to issue an addendum to the existing permit. Addendums issued separately from the permit can be forgotten or misplaced so the industrial user should be instructed to replace the original section of the permit that is being modified with the addendum or attach the addendum to the permit.

When modifying a permit, the permit writer should allow a reasonable time frame for the industrial user to comply with the new or changed conditions if the user cannot meet them at the time of the modification and if permitted by law. If these new or changed conditions are the result of new or changed categorical pretreatment regulations, those regulations will stipulate the compliance period. The Control Authority cannot extend the Federal compliance period. Of course, if the industrial user is already complying with the modified condition, no compliance or "grace period" should be provided. The compliance period must be clearly designated in the modified permit. In no
event, however, may a compliance schedule relieve the user of its duty to comply with currently applicable pretreatment standards and requirements.

2.4.2 *Permit or Discharge Terminations or Suspensions*

Situations may arise during the effective period of a permit which require the Control Authority to suspend or terminate the industrial user's right to discharge into the sewer system. The General Pretreatment Regulations require Control Authorities to be authorized to terminate the industrial user's discharge if it presents or may present an endangerment to the environment or if it threatens to interfere with the operation of the treatment works [see 40 CFR 403.8(f)(1)(v1)(B)]. Therefore, the Control Authority's legal authority must allow it to halt any such discharges. Use of permit suspensions or terminations should be part of an overall enforcement management strategy. Development of such a strategy is described in EPA's Pretreatment Compliance Monitoring and Enforcement Guidance

2.5 *PERMIT TRANSFERABILITY*

The justifications for limiting the transferability of permits are very similar to those mentioned in Section 2.3 for limiting permit duration. The Control Authority needs to be notified of owner/operator transfers and be given the opportunity to question the new owner/operator regarding plans to redesign or otherwise change the process or management practices at the facility. The Control Authority should, therefore, require advance notice of all proposed owner/operator transfers, preferably at least 30 days in advance of the transfer. In addition, if the Control Authority does not wish to provide for transfers for changes in owner/operator, it may simply revoke the existing permit and reissue a new permit to the new owner/operator.

2.5.1 *Informal Transfer*

When the Control Authority is satisfied that the transfer involves only a change in owner/operator, the permit may be transferred to a new user without changing any of the permit conditions. This may be accomplished by using what
is referred to as an informal transfer. The following procedures are recommended to implement this type of transfer:

- The current or future owner/operator must submit to the Control Authority, at least thirty days in advance of the proposed transfer date, a notification describing the anticipated transaction and identifying the transfer date. (However, the Control Authority should have authority to allow a shorter notification period for good cause.)

- The notice must include: (1) a written agreement between the current and future owner/operator that the permit held by the current owner/operator, together with all privileges and obligations bestowed through it, be transferred to the future owner/operator effective as of the specified transfer date, and (2) a signed statement by the future owner/operator that it has no immediate intention of modifying operations at the permitted facility in any manner that could result in a discharge from the facility, that it will notify the Control Authority in advance of any such modification it may choose to implement in the future, and that it will abide by all terms and conditions set forth in the permit. These documents should be signed by individuals with authority to execute official documents on behalf of the company represented.

It should be noted that this informal transfer need not preclude the Control Authority from collecting any applicable permit or application fee.

2.5.2 Modify or Revoke and Reissue

If, in the opinion of the Control Authority, the change in owner/operator at a permitted facility will result in a substantial change in process, operation, or management practices at the facility, or if local or State law prevents permit transfers, the Control Authority should formally modify or revoke and reissue the existing permit. The procedure in this case should be the same as if the user were a new connection and all application and permit issuance procedures should be followed.
CHAPTER 3

LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

The legal authority of a POTW or other local Control Authority to administer a permit program is derived from State law and local ordinance. Although this chapter describes the legal authority and procedures required for a POTW to implement an effective permit program, a State acting as the Control Authority should have similar legal authorities and procedures in place. State law will determine what authorities are available to the Control Authority and, thus, the Control Authority must be aware of these laws when developing or seeking modifications to its local ordinance. The local ordinance (which constitutes the Control Authority's exercise of the authority conferred by State law) must describe the permit program in sufficient detail so that industrial users and permit writers will know the procedures, expectations, and liabilities associated with the program. The Control Authority should request its attorney to assist it in reviewing the ordinance to ensure that it provides adequate authority and that the ordinance does not create any unnecessary procedural or institutional obstacles which might hinder the permit program. If legal authority must be modified to establish a permit program, the Control Authority should bear in mind that such modifications are considered a substantial modification requiring approval by the Approval Authority (EPA or State) in accordance with the procedure in 40 CFR 403.18.

Although each Control Authority will have its own set of procedures, the basic formula for permit issuance will usually be the same. Figure 3-1 shows this basic permitting process. Subsequent chapters of this manual will address the application and permit writing processes. This chapter considers the legal authority necessary to implement and enforce a permit program and the permit issuance activities associated with permit development, including public participation, transmitting a final permit to the industrial user, permit appeals, and permit reissuance considerations.
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

FIGURE 3-1. COMMON ELEMENTS OF THE PERMIT ISSUANCE PROCESS

1. Identify and Notify SIU
2. SIU Files Permit Application
3. Application Review: Complete and Accurate?
   - Yes: Visit Site
   - No: Request Additional Data
4. Visit Site
5. Draft Permit
6. Send Draft Permit to Applicant for Review
   - Notify Other Interested Parties
   - Other Public Participation
7. Consider Comments and Revise Draft Permit
8. Issue Permit
9. Appealed?
   - Yes: Administrative Judicial Review
   - No: Monitor Compliance Enforcement During Effective Period of Permit
10. Applicants Files Renewal Application
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

3.1 LEGAL AUTHORITY

Under general principles of administrative law, final permit decisions of the Control Authority typically may be challenged by permit applicants and other interested parties. Therefore, the Control Authority should ensure that it has the requisite legal authority to impose pretreatment requirements in industrial user permits and that it exercises its authority in a non-arbitrary manner. Assuming that State law authorizes Control Authorities to issue and enforce permits, the local ordinance should clearly provide the Control Authority with the following authorities:

- Authority to regulate all industrial users contributing wastewater to the POTW
- Authority to require and issue industrial user permits, including:
  - Authority to require users to obtain permits
  - Authority to require users to submit permit applications containing all data which the Control Authority deems relevant to permit decisions and provisions for public access to data
  - Authority to enter, inspect, and sample to verify information supplied by the industrial user as well as to assess the industrial user's compliance status
  - Authority to incorporate local limits
  - Authority to incorporate Federal and State pretreatment standards and requirements
  - Authority to require self-monitoring, record keeping, and reporting by permittee
  - Authority to develop other appropriate permit conditions
- Authority to enforce permit violations.

Each of these authorities is discussed briefly below. Appendix D contains sample sewer use ordinance provisions addressing permit issuance and enforcement.
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

3.1.1 Authority Over All Industrial Users Contributing Wastewater to the POTW

A Control Authority must be able to impose and enforce applicable pretreatment standards and requirements on every nondomestic user contributing wastewater to its collection system. Therefore, it is necessary that the Control Authority's sewer use ordinance provides it with the requisite authority to issue control mechanisms, conduct compliance monitoring activities, and, when warranted, take appropriate enforcement action in response to noncompliance by users located within its boundaries. However, many Control Authorities serve nondomestic users located beyond their political boundaries (e.g., beyond a city's limits or county line) and the enforceability of the sewer use ordinance in these "multijurisdictional" areas may be uncertain. Such circumstances typically require the Control Authority to take additional measures to ensure its regulatory authority throughout its service area. Control Authorities should consult their attorneys for approaches under State and local laws to any multijurisdictional problems.

3.1.2 Authority to Require and Issue Industrial User Permits

3.1.2.1 Requiring Users to Obtain Permits

The ordinance authorizing a permit system should make it clear that industrial users covered by the permit program (as defined in the local ordinance) must obtain a permit. Ideally, the permit should be obtained as a precondition to discharging wastewater into the sewer system. This requirement places the burden on the user to come forward and identify itself or risk an enforcement action for failing to obtain a permit.

3.1.2.2 Submitting Application Data

The ordinance should authorize the Control Authority to require the user to submit information on its facility, processes, raw materials, flows, pollutant discharge, storage areas, production, and other environmental permits held. Since each industrial user is unique, the Control Authority should also be able to require that the user submit additional information as
CHAPTER 3  LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

may be necessary to evaluate its wastewater discharge and spill potential. The ordinance must ensure information submitted to the Control Authority which meets EPA's definition of "effluent data" under 40 CFR 2.302 will be available to the public without restriction [40 CFR 403.14].

3.1.2.3 Entering and Inspecting

EPA regulations require the Control Authority to have the authority to enter and inspect industrial users' facilities. This authority must be at least as extensive as EPA's own broad authority under Section 308 of the Clean Water Act. At a minimum, these entry and inspection authorities should allow the Control Authority's authorized representative(s) to, (1) have a right of entry to, upon, or through any premises in which an effluent source is located or in which records required to be maintained by the permittee are located, and (2) at reasonable times, have access to and copy any records, inspect any monitoring equipment or methods (required of the permittee), and sample any effluents which the owner or operator of such source is generating [40 CFR 403.8(f)(1)(v)].

3.1.2.4 Imposing Local Limits

The Control Authority is obligated to develop and enforce local limits necessary to implement and enforce the general and specific prohibitions [40 CFR 403.5]. The ordinance should state that such local limits may be imposed on industrial users directly through the sewer use ordinance, through industrial user permits, and through additional control mechanisms the Control Authority intends to use as part of its pretreatment program.

3.1.2.5 Imposing Federal and State Requirements

Control Authorities are responsible for enforcing Federal and State pretreatment standards and requirements as well as local limits. The ordinance should specifically state that EPA's categorical pretreatment standards [40 CFR Subchapter N], the general and specific prohibitions [40 CFR 403.5], and any other requirements mandated under State law are adopted by
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

reference and may be imposed and enforced through industrial user permits [40 CFR 403.8(f)(1)(ii)]. Moreover, the Control Authority should ensure that the ordinance does not provide for any variance or adjustment of these requirements other than those authorized under applicable State or Federal law.

3.1.2.6 Requiring Users to Self-Monitor, Keep Records, and Report

Federal regulations require certain classes of industrial users to conduct periodic self-monitoring, maintain sampling records, routinely report on their compliance status, and disclose any changing conditions or planned alterations at their facilities [40 CFR 403.12]. The Control Authority's ordinance should authorize the Control Authority to impose and enforce these requirements in industrial user permits. In addition, the ordinance should authorize the Control Authority to impose and enforce these or similar obligations on other industrial users.

3.1.2.7 Imposing Other Conditions

In many instances, the Control Authority will have developed other local requirements or conditions applicable to industrial user discharges. These conditions may include such things as user fees, a cross-connection prohibition, or Biochemical Oxygen Demand (BOD) or Total Suspended Solids (TSS) concentrations above which the Control Authority will impose surcharge fees. Although these conditions may not directly relate to controlling interference or pass through, they are nonetheless industrial user requirements and may be included as permit conditions. For this reason, the local ordinance should clearly authorize that industrial user permits may contain other conditions as the Control Authority deems necessary or desirable.

3.1.3 Authority to Enforce Permit Violations

Few ordinances expressly mandate all the pretreatment requirements which a Control Authority may impose through a permit on a particular industrial
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

user. In other words, they leave a great many details regarding the contents and issuance of a permit to the discretion of the Control Authority in general, and the permit writer in particular. At a minimum, the ordinance should always expressly state that permit conditions are specifically and independently enforceable regardless of whether they are expressly required by or set out in the ordinance. The ordinance should specify the enforcement response alternatives available to the Control Authority including injunctive relief, civil and criminal penalties, and service termination.

3.2 PUBLIC PARTICIPATION

The permit writer should not draft a permit in seclusion; nor need the permit development process be viewed as an adversarial contest. Rather, communication between the permit writer, the industrial user, and the public is frequently a legal requirement and should always be encouraged. One way for Control Authorities to encourage public involvement is by publicly noticing permit development activities and accepting comments on draft permits. Alternatively, the Control Authority may wish to hold a public hearing on draft permits. The local ordinance may require some sort of public notice of and opportunity to comment on the draft permit, such as publishing a notice in a local newspaper, notifying specific individuals on a Control Authority’s mailing list, and/or publicizing permits during public meetings of sewage districts, City Councils, town meetings, or in a bulletin or newsletter. Such notice is helpful to explain the Control Authority’s actions and may be particularly important if any possibility exists that the permit may become controversial.

Public involvement during permit development, particularly discussions with the applicant, allow the permit writer to identify and resolve issues that are of concern to the public simply by modifying a draft permit before it is made final. In addition, it provides a source of supplementary data which may fill in gaps and omissions or clarify ambiguities in the permit application. Such communication often leads to a better understanding by the
CHAPTER 3  LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

permit writer of the industrial user's process and to less anxiety by the
industrial user, since the user gains a clearer picture of the Control
Authority's expectations. Therefore, EPA encourages Control Authorities to
involve the permittee and the general public as much as possible in the permit
development process. However, dialogue with the permittee or the public at
large should continue only as long as it proves useful. If the development
process stalls or the interested parties reach an impasse over a particular
issue, the permit writer should proceed directly to permit issuance. If the
discharger believes that the permit writer's position is unreasonable, it may,
upon permit issuance, seek reconsideration through an administrative or
judicial appeal.

Once the Control Authority decides to provide public notice of and
opportunity to comment on draft permits, it should provide this notice and
opportunity for comment for all permits. This will avoid any appearance of
arbitrary behavior on the part of the Control Authority. Public participation
can occur at several points in the permit development process. The Control
Authority may want to meet with the industrial user and interested citizens
prior to drafting the permit or wait until a draft permit is available for
discussion. Alternatively, the Control Authority may choose to distribute
copies of a completed draft permit and request comments in writing. A
subsequent meeting can be arranged to discuss these comments, if warranted.

If comments are received from the public, the Control Authority should
review them and respond in writing, either on an individual basis to each
commenter, or for all commenters in a single "Response to Comment" document
issued at the same time as the final permit. The Control Authority should
keep a record of all public meetings, comments received, and telephone
conversations to document how the permit was developed and to substantiate
that proper procedures were followed. Informal practices during the permit
development and issuance processes (such as undocumented meetings or
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

undocumented verbal communications) with the industrial user or any other interested party may create the appearance of undue and inequitable influence. Therefore, such practices should be avoided.

Even where a Control Authority chooses not to involve the general public in its permit issuance process, it must still develop procedures to respond to individual requests to be notified of permitting activities. EPA regulations require Control Authorities to provide individual notice and opportunity to comment to persons or groups who request notification of local limits development [40 CFR 403.5(c)(3)]. Consequently, Control Authorities are expected to, at a minimum, maintain a mailing list of interested persons and provide them with notice of local limit development.

3.3 ISSUING THE FINAL PERMIT

Once the public participation requirements, if any, are satisfied, the Control Authority revises the draft permit as necessary and proceeds to issue a final permit to the user. A transmittal letter accompanying the permit should summarize its contents. For example, the effective and expiration dates, its enforceability, and, where available, procedures for appealing the permit conditions being imposed should be summarized. To ensure that the industrial user receives the permit, it is recommended that one of the following delivery methods be followed: hand delivery or sending the permit by certified mail with return receipt requested.

In all cases, a signature should be obtained from the person accepting delivery of the permit. This signature should only indicate that the applicant has received the permit. There should not be a statement indicating that, by signing, the permittee agrees to comply with the terms and conditions of the permit. Such a statement could, depending on the circumstances, be misconstrued as changing the legal nature of the document from a permit to a contractual agreement; thereby affecting the interpretations and enforceability of the terms and conditions of the permit.
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3.4 PERMIT APPEALS

Once the final permit is issued, industrial users should have the right to challenge or appeal specific provisions of the permit which they believe are contrary to law or an unreasonable exercise of the Control Authority's discretion under that law. The appeal period specified in the local ordinance should be clearly identified in the letter transmitting the final permit (See Appendix F), together with a brief description of the procedures the permittee must follow to file an appeal. The most effective permit programs provide that once the limited time period for administrative and/or judicial appeals has passed, the permittee may not challenge the legality or appropriateness of the permit terms. Thus the permittee may not (in an enforcement proceeding) raise issues that could have been raised in a permit appeal.

The Control Authority should establish, through its sewer use ordinance, an administrative forum where interested parties may request reconsideration of specific permit conditions. An administrative appeal process may allow legitimate errors to be corrected without expending the resource requirements of a judicial proceeding. The Control Authority should consider the factors listed below when fashioning an administrative appeal mechanism.

- Requests for reconsideration should be in writing and include supporting reasons for reconsidering the permit conditions.
- Requests for reconsideration should be made soon after final issuance (15-30 days) after which time the right of reconsideration, by the Control Authority or by a court of law, is considered waived.
- Reconsideration requests should be evaluated by someone other than the person drafting and issuing the final permit. For example, if the Control Authority has a Board of Directors or a Director who was not directly involved in permit development, the Board or the Director should consider the appeal.
- The appeal may be considered on the basis of written submissions only or may also provide for a hearing before the Board or Director.
The request for reconsideration should not result in an automatic stay of the final permit conditions. However, in the event the request is granted, a stay might be considered appropriate at the discretion of the Board or the Director.

The ordinance should also provide the permittee with a limited time to bring a judicial appeal if the administrative appeal is not successful, after which the right to such an appeal is considered waived.

3.5 PERMIT REISSUANCE

A permit application to renew the user’s current permit must be received with adequate lead time for the Control Authority to issue a new permit prior to the existing permit’s expiration. Ideally, the permit issuance process should take no more than two months to complete for any user. Therefore, EPA recommends that applications for reissuance be filed at least 90 days prior to expiration of the existing permit. To lessen the administrative burden on the Control Authority and to provide additional time to review the permit applications, it is recommended that permits be issued with staggered expiration dates. For additional information on permit issuance and reissuance, see Chapter 2.

3.6 CONTINUING PERMITS BEYOND THEIR EXPIRATION DATE

A Control Authority may wish to state in its sewer use ordinance that a permit’s effectiveness continues beyond its expiration date where the permittee has filed a timely application for permit reissuance but the Control Authority, through no fault on the part of the industrial user, has not reissued the permit at the time of expiration. This is important because the ordinance will typically forbid discharge without a valid permit. Thus, an industrial user, through no fault of its own, could be forced to either cease operations or to continue discharging in violation of the ordinance. Also, in locations where there is no prohibition on industrial user discharges without a permit, the user would not specifically be required to continue to follow the prescribed permit conditions of a lapsed permit pending Control Authority
CHAPTER 3 LEGAL AUTHORITY FOR A PERMIT PROGRAM AND PERMIT ISSUANCE PROCEDURES

reissuance of the permit. However, EPA does not expect permits to be routinely continued beyond their expiration dates and this stopgap measure should only be relied on in unusual situations. This procedure should not be used in lieu of maintaining a sufficient permitting staff or reissuing permits in a timely manner. Furthermore, the length of time a permit is continued should be kept as brief as possible. The Control Authority should be aware that the failure to reissue any permit within 180 days of expiration may result in a determination that the Control Authority itself is in reportable noncompliance with the terms of its NPDES permit. For additional information regarding reportable noncompliance, please refer to EPA's FY 1990 Guidance for Reporting and Evaluating POTW Noncompliance with Pretreatment Requirements.
PART II

PERMIT WRITING PROCEDURES
CHAPTER 4

PERMIT APPLICATIONS

After the Control Authority has established its legal authority and permitting procedures (as discussed in Chapter 3), permit preparation can begin in earnest. The initial step in this process is to obtain and review industrial user data from the permit application and all other pertinent background information. The permit writer must evaluate and verify the completeness and accuracy of these data because they are used as a basis for permitting decisions.

4.1 WHAT INFORMATION TO COLLECT

The Control Authority’s ordinance should require an industrial user to complete and file a permit application in order to receive a permit. The permit application serves as the formal request from the industrial user to the Control Authority to connect and/or discharge to the sewer system. The application enables the Control Authority to obtain the information necessary to evaluate the quality and quantity of wastewater to be discharged and to determine what controls to place on the discharge.

The permit application format should be standardized so that all necessary information is requested, but should also allow the applicant the leeway to include narrative information. While it is evident that the industrial user should be required to provide flow and wastewater characteristics, other information, such as number of employees and list of chemicals used or stored, is also vital to the permit writer. The number of employees can indicate the magnitude of sanitary flow and the list of chemicals can indicate potential pollutants present in the wastestream. This information can lead to a better understanding of the facility’s operations which, in turn, enables the permit writer to evaluate the industrial user’s discharge comprehensively and to develop adequate and appropriate permit conditions. An example of an application form appears in Appendix E.
4.2 APPLICATION REVIEW PROCESS

After receiving the completed application, the review process begins. First, the application should be reviewed for completeness and accuracy of the information submitted. Because the draft permit is based upon the information in the application, it is imperative that the permit writer use all means possible, including inspecting the facility, to verify its completeness and accuracy.

4.2.1 Completeness

At a minimum, the application form should have all applicable spaces filled in. Instructions provided to the industrial user on how to complete the application should state that all items must be completed and that the term "not applicable" should be used to show that the item was considered but was not pertinent to the facility. If blanks do appear on the submitted application form, the permit writer must obtain a response to the items before issuing a permit. In some cases, obtaining a response can be handled over the telephone, with the phone conversation documented in writing. However, the permit writer may choose to meet the responsible party at the industry to assist in completing the missing application information and clarifying questions that may not have been understood. The most reliable method is to obtain the response in writing by returning a copy of the application to the applicant for completion. This method has the advantages of requiring the permit applicant to actually fill in the blanks in the application thereby allowing greater clarity as to who provided the information and who is responsible for any inaccuracies or distortions of fact. Additionally, the permit writer should conduct a facility inspection in order to determine whether the information on the application is complete. If changes or corrections to any application are extensive, the applicant may be required to submit a new application.

When reviewing the application for completeness, the permit writer should make sure that two items which are often overlooked by applicants are included...
in the application: 1) the facility's sewer piping layout and process diagrams; and 2) effluent data (of course, new facilities would not have effluent data, but should provide estimates based on best professional judgment). Applicants may fail to submit any data whatsoever or data sufficient to characterize the facility properly. Waste characterization (through sampling and analysis) of individual wastestreams may be necessary. Pollutant data on the final effluent may not always be adequate for complex facilities where internal wastestreams can be diluted by large volumes of cooling water prior to the sampling point. In some cases, such as where significant dilution is thought to occur, data on the characteristics of internal wastestreams, particularly treatment unit effluents, may be needed to assess the adequacy of existing pollution controls and the feasibility of achieving greater reductions of pollutants in the effluent. In addition, flows of internal wastestreams should be known if the permit writer is applying the combined wastestream formula. Table 4-1 (page 4-12) gives two examples of how to analyze permit applications to determine if they are complete. The permit writer should not hesitate to require any supplementary information (such as more detailed production information or monitoring data) needed to develop the permit.

Finally, signatories must be of sufficient stature (e.g., a corporate officer) so as to enable the Control Authority to hold the facility legally responsible for the representations made in permit applications and subsequent compliance reports. EPA regulations 40 CFR 403.12(1) require that reports from categorical industrial users be signed by the following persons:

a) By a responsible corporate officer, if the industrial user submitting the reports is a corporation. For the purposes of this paragraph, a responsible corporate officer means:

(1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function or any other person who performs similar policy- or decision-making functions for the corporation, or;
(ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b) By a general partner or proprietor if the industrial user submitting the reports is a partnership or sole proprietorship respectively.

c) The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal, State, or local governmental entity, or their agents.

d) By a duly authorized representative of the individual designated in paragraph (a), (b), or (c) of this section if:

(i) the authorization is made in writing by the individual described in paragraph (a), (b), or (c);

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the industrial discharge originates, such as the position of plant manager, operator of a well, or a well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(iii) the written authorization is submitted to the City.

e) If an authorization under paragraph (d) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of paragraph (d) of this section must be submitted to the City prior to or together with any reports to be signed by an authorized representative.

4.2.2 Accuracy

A permit application must be accurate. In other words, not only should all of the necessary information be submitted (complete), it must also be correct. While it may be difficult to detect certain inaccuracies, a number of common mistakes can be readily detected. When mistakes are detected, they must be corrected. The permit writer should follow the same procedures to
correct inaccurate information as were used to obtain missing information. The examples in Table 4-2 (page 4-13) illustrate the type of review which the permit writer must conduct.

In verifying the industrial user's information, particular attention should be given to:

- Information on the use, production, and discharge of toxic substances
- Information on all wastestreams (including schematic flow diagram(s) and waste characterization of individual wastestreams).

Accurate information on the use or production of toxic or nonconventional pollutants at a facility and adequate sampling data on these pollutants in the facility's effluent are essential for preparing appropriate permit limits. Industrial users should provide a comprehensive list of toxic substances used, produced (as products, by-products, or intermediates), and stored, and identify those toxic substances known or suspected to be present in the wastestream. If the industrial user lists toxic substances but does not indicate their potential presence in the wastestream, an explanation for their absence from the wastestream should be provided. Specific organic constituents of trade name products or compounds should be obtained from manufacturers. Facility inspections should be conducted to verify this information by inspecting all storage areas and reviewing material safety data sheets.

Schematic diagrams of facility operations and internal wastewater streams should also be verified by inspecting the facility. If the facility is subject to categorical pretreatment standards, particular attention should be paid to classifying regulated, unregulated, and dilution wastestreams. Proper classification of the various wastestreams and accurate flow data on the individual wastestreams are critical to the calculation of correct effluent limits.
Facility inspections may include dye testing as a method of verifying piping diagrams or identifying where piping diagrams do not exist. Developing a water balance (as illustrated in Table 4-3, page 4-14), using the water and wastewater flow data provided by the industrial user, can determine whether all wastestreams have been accounted for and whether flow data are accurate. If discrepancies exist, actual flow measurement should be employed to gather more accurate data.

4.2.3 Background Information Review

To assist in evaluating the completeness and accuracy of the permit application, the permit writer should consider any additional background information on the facility which may be relevant. Much of this information may already be available in the Control Authority's industrial user files. Pertinent background information to consider includes:

- **Current permit and rationale for the current permit (if one was prepared) -** The permit writer should be aware of the parameters regulated, the basis for setting effluent limits, and any management practices required of the discharger. This information will alert the permit writer to pollutants previously thought to be of concern and the monitoring requirements deemed appropriate. In addition to reviewing the industrial user background information, the permit writer should also consider whether changes in the treatment plant's operation, its NPDES permit conditions and/or its sludge disposal practices and limitations could affect the industry's permit conditions. If the conditions under which specific discharges were permitted have not changed since the last permit application, little reason exists for drastic changes to the conditions for that discharge, assuming the previous permit was developed properly. Exceptions to this include cases where a record of problems or noncompliance exists at the facility, as discussed below.

- **Old permit application, baseline monitoring report, and industrial waste surveys -** Information in these documents can be used: (1) to establish past operating practices and conditions; (2) as a baseline for evaluating the new application; and (3) to identify changes.

- **Compliance inspection reports, sampling data, and self-monitoring reports -** These reports may provide the permit writer with information regarding possible causes for any permit violations, indicate how well wastewater treatment units are operated, and provide insight as to the
discharger's attitude toward environmental compliance. Information gathered from these reports such as evidence of spills or poor operation and maintenance of a pretreatment system may also provide a basis for the requirement of industrial user management practices as a permit condition. If these reports reveal any changes in the facility's operations (compared to the previous permit application), these differences should be noted and verified on the latest application. Any discrepancies should be resolved to the permit writer's satisfaction before a permit is issued.

Review and evaluation of sampling data are important because these data can indicate how consistently the permit limits have been met (this information may be relevant in establishing monitoring frequencies required in the new permit). Changes in monitoring data or compliance can also indicate possible changes at the facility.

- **Correspondence concerning compliance or enforcement actions** - This information can alert the permit writer to the occurrence and/or resolution of compliance problems and can be used to assist the permit writer in determining monitoring frequencies and/or special conditions.

The permit writer can obtain additional information on the industrial processes and pollutants that might be present, by reviewing National categorical pretreatment regulations, related development documents, reference text books on specific industry categories, EPA's *Treatability Manual*, and information from other environmental permit programs such as the Resource Conservation and Recovery Act (RCRA) and the Clean Air Act. As needed, supplemental information should be requested from various State agencies, EPA Regional offices, EPA's Industrial Technology Division, and the applicant.

4.2.4 **Facility Inspection**

As mentioned earlier, a facility inspection is necessary to verify application information and to gain an understanding of the industrial user's facilities. The inspection should encompass a review of the following:

- **Production processes** - This will assist the permit writer in identifying:
  - Applicable categorical pretreatment standards
CHAPTER 4

- Toxic or hazardous substances that may be present in raw materials, products, and by-products that have the potential to be present in the industry's discharge
- Water uses and resulting wastewater streams
- Existing in-process pollution controls
- Potential for spills and leaks.

From this information, the permit writer can select pollutants to be limited and/or require development of additional in-process controls.

- **Sewer layout of the plant** - If a sewer plan exists, the permit writer needs to review the plan thoroughly to determine the course and destination of each sewer line. The exact source of and the point at which each wastestream enters the sewer need to be identified. The existing monitoring point or any potential location for monitoring should also be located. Where sewer plans do not exist, smoke or dye testing should be performed in order to locate all points of discharge to the sewer system. This information will be used to determine the appropriate sampling points, to ensure that all points of discharge to the sewer system will be identified in the permit, and to evaluate the need for application of the combined wastestream formula.

- **Wastewater treatment facilities, including treatment performance and operation and maintenance practices** - This information can be used to evaluate the adequacy of existing treatment, to assess the feasibility of improvements, and to evaluate performance data.

- **Types of batch discharges that occur at the facility** - This information could affect the design of the monitoring requirements. Clean-up operations usually result in batch discharges of washdown water. Information about clean-up times and water volumes should be sought.

- **Raw material and product storage and loading areas, sludge storage and disposal areas, hazardous waste management facilities (if applicable) including onsite disposal areas, and all process areas and the proximity of these areas to sewer discharge points** - This review will help to identify potential pollutants and potential or known problems with spills or leaks. This information is then used to determine the need for additional controls through the establishment of specific industrial user management practices (e.g., slug loading control plans, toxic organic management plans, and good housekeeping practices).
Sampling points, sampling methods, and analytical techniques - This information is needed to define any needed changes and to evaluate the quality of both the Control Authority’s and the industrial user’s sampling data.

To conduct an adequate inspection of a facility may require a full day. Complex plants with several treatment systems, numerous sewer connections, and extensive ancillary activities may require more than one day to inspect. Guidance on the performance of inspections may be found in the NPDES Compliance Inspection Manual, EPA Region 8’s draft Industrial Pretreatment Program Inspection Manual, and EPA’s Pretreatment Facility Inspection.

4.3 PUBLIC ACCESS TO INFORMATION

Certain information collected through a permit application form and industrial monitoring reports must be made available to the general public upon request [40 CFR 403.14(b)]. The following information is considered "effluent data" under 40 CFR Part 2 of EPA’s regulations and must always be available to the public:

- General description of the location and nature of the source to the extent necessary to identify the source and distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source)

- Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics (to the extent related to water quality) of the pollutants which, under an applicable standard or limitation, the source was authorized to discharge (including, to the extent necessary for such purpose, a description of the manner or rate of operation of the source)

- Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics (to the extent related to water quality) of any pollutant which has been discharged.

While the effluent data must be made available to the public, other data submitted by industrial users may be claimed "confidential" and withheld from
public scrutiny. Of course, the Control Authority must release information submitted under a claim of confidentiality to the Approval Authority and EPA (if different) whenever requested to do so. In order to guarantee that effluent data remain available for public review, it is recommended that the ordinance specifically state that effluent data [as defined in 40 CFR 2.302(a)(2)] will not be considered confidential under any circumstances. The ordinance may also provide that proprietary information or trade secrets will be entitled to consideration by the Control Authority for possible confidential treatment (provided these are not "effluent data") if the industrial user stamps "Confidential Business Information" over all parts for which protection is sought. The Control Authority, when it first receives the request for confidential treatment of submitted information, may make an immediate determination as to whether to grant the request or defer making a determination until it receives a request to disclose the information.

If the Control Authority does not make a determination until a request to disclose is received, the Control Authority should notify the industrial user that a request to disclose has been received, inform the industrial user of the preliminary determination, and provide an opportunity for the industrial user to appeal. A period of 15 days should be allowed for the industrial user to respond after which if no response is obtained the Control Authority can release the data (if the information was not entitled to confidentiality) or deny the request to disclose (if the information is considered confidential).

If the Control Authority makes a determination when it first receives the request for confidentiality and determines that the information is not entitled to confidential treatment, it should notify the industrial user orally and then by written notice of the denial of confidentiality status. The written notice may be made by certified mail return receipt requested, by personal delivery, or by other means which allow verification of the fact of receipt and the date of receipt. This written notice should provide an opportunity for the industrial user to appeal the decision within 15 days.
If the information is deemed confidential (or if it is being treated as confidential pending a final determination), it should be separated from the rest of the permit file and kept in "limited access" (lock and key) status. This will typically require the creation of a second file for each user which contains additional confidential materials. Access to this special information should be safeguarded, even against Control Authority employees who have no legitimate reason for access to such materials. In the event such information is turned over to EPA, it will receive such protection as is afforded by 40 CFR Part 2. All information which is not specifically identified as confidential (or which is later determined by the Control Authority not to be entitled to confidential treatment) should be available to the public upon request.

It is important to maintain the public information in an orderly and complete manner and protect against theft or destruction of valuable documents. Therefore, it is recommended that a "request system" be devised which will create a permanent record of the information requested and the person(s) handling and receiving the data. Such a system might function similar to a checkout system at a public library and would enable the Control Authority to identify persons looking at the file in the event a portion of it was ever missing. In fact, it is recommended that the Control Authority has photocopying services available in order to prohibit files from being taken off the premises.
TABLE 4-1. EXAMPLES OF DEFICIENCIES COMMONLY FOUND IN PERMIT APPLICATIONS

- Are required toxic organic pollutants listed?

**Example:** An application from an industrial user subject to Federal categorical metal finishing regulations fails to list the presence or absence of any toxic organics.

**Discussion:** Industrial facilities subject to metal finishing categorical standards are regulated for 111 toxic organics [40 CFR 433.11(e)]. To comply with the Federal baseline monitoring report (BMR) requirements, the facility must monitor for those regulated toxic organics reasonably expected to be present, based on a process engineering analysis of the raw materials used and the possibility of any toxic organics present at the facility coming into contact with water and wastewater sources. If no toxic organics are used or expected to be discharged, this should be so stated by the facility's authorized representative. [Note: For the purposes of the BMR had this industrial facility been subject to the Total Toxic Organic (TTO) standard for the electrical and electronic components industrial category, it would have been required to monitor for all regulated toxic organics. The permit writer needs to check the specific categorical regulations to determine the TTO requirements for each category.]

- Are all expected pollutants listed?

**Example:** A jobshop electroplater marks zinc and copper as "believed absent in the wastewater."

**Discussion:** If the facility discharges 10,000 gpd or more, zinc and copper are regulated by the electroplating categorical standards [40 CFR 413 Subpart A] and must be monitored even if they are not expected to be present in the discharge in significant quantities [40 CFR 403.12(b) and (e)]. If the facility discharges less than 10,000 gpd, zinc and copper are not regulated and, therefore, not required to be monitored by Federal regulations; however, these pollutants may be present in trace amounts in proprietary chemicals or because the base material contains zinc or copper. A comprehensive test will determine whether any unexpected contaminants are present in significant quantities and will provide information on levels of pollutants which are known to be present.
### TABLE 4-2. INACCURACIES IN PERMIT APPLICATIONS

* Do the reported values comport with the existing permit, previous application, and monitoring data?

**Example:** The monitoring data from the previous permit showed an average discharge of 38 pounds per day for oil and grease. The new application reports an average of 3.3 pounds per day.

**Discussion:** There may be a problem in calculation here. It could be simply a shift in the decimal point, or it could involve some other type of error. It also could represent a significant change in production techniques or treatment efficiencies.

* Are analytical detection limits sufficient to detect the presence of pollutants?

**Example:** An industrial user subject to the metal finishing categorical pretreatment standards reported that methylene chloride was not detected at the detection level of 0.1 mg/l.

**Discussion:** The TTO standard is the summation of all quantifiable values greater than 0.01 mg/l of the specific toxic organics listed in the regulation. A detection limit of 0.1 mg/l would not reveal the presence of methylene chloride at concentrations between 0.01 mg/l and 0.1 mg/l. The permit writer should verify that the best approved analytical procedures were used to verify the presence or absence of methylene chloride. If not, further testing using approved procedures should be required.

* Do the concentration, mass, and flow values correspond?

**Example:** Suppose an industrial user reports a maximum daily flow of 0.12 mgd, a daily suspended solids concentration of 23 mg/l, and a maximum daily mass discharge of 2.3 pounds per day.

**Discussion:** There appears to be a mathematical error since the maximum daily flow and concentration yield a maximum daily discharge of 23 pounds per day. The permit writer should investigate this apparent error.
TABLE 4-3. VERIFICATION OF FLOW DATA USING WATER BALANCE

Example: An industrial user has estimated a wastestream flow of 50,000 gpd using water usage records. However, a review of historical water usage records and an old permit application indicates wastewater flows ranged from 100,000 to 150,000 gpd. The facility had not instituted any water-reduction measures, significantly changed its process operations, or decreased its number of employees.

Discussion: An inspection of the facility revealed two separate water meters (one for sanitary and one for process water); the industrial user had overlooked the sanitary meter. Further, the process water meter was found to be defective. Subsequent flow monitoring of the total wastestream recorded a flow of 125,000 gpd. A new water meter was installed and concurrent wastestream flow monitoring and water meter readings resulted in the following water balances:

- **Water In** (based on both water meter readings): 148,000 gpd (131,000 gpd process line and 17,000 gpd sanitary line)
- **Water Out** (based on wastestream flow monitoring): 125,000 gpd total wastestream discharged to sewer system. Evaporative and consumption losses were estimated at 23,000 gpd (15 percent of total water usage).
CHAPTER 5

GENERAL PERMITTING CONSIDERATIONS

5.1 CONTENTS OF PERMIT

Once complete and accurate information is obtained and verified, the next step in the industrial user permit development process is to draft the actual permit. At a minimum, the permit should consist of the following elements:

- Cover page (Chapter 6)
- Effluent limits (Chapter 7)
- Monitoring requirements (Chapter 8, Sections 8.1-8.5)
- Reporting requirements (Chapter 8, Section 8.6)
- Standard conditions (Chapter 9)
- Special conditions where necessary to adequately regulate the discharge (Chapter 10).

These elements are set out in a sample permit in Appendix F and sample standard conditions in Appendix G. These appendices illustrate many of the concepts discussed in this chapter. Before the six elements are discussed in more detail, some general considerations need to be emphasized: the care that should be taken in the structure and wording of the permit; common permitting errors or omissions to avoid; the flexibility of the permit; and the importance of documenting all permit decisions.

5.2 STRUCTURE AND WORDING

The structure and wording of a permit directly affect the Control Authority's ability to invoke its various enforcement options successfully. For this reason, the permit writer should follow three general rules:

- Use specific language
- Develop concise and complete discharge conditions and requirements
- Write as clearly and simply as possible.
CHAPTER 5 GENERAL PERMITTING CONSIDERATIONS

The permit writer should avoid vague, weak, or obtuse language which could undermine the permit's enforceability. The list below shows language to avoid and appropriate language to use in the permit.

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The permit writer should avoid, as well, overly long and confusing requirements. However, the permit writer should not be so brief as to leave out vital specifics. A permit frequently acts as the principal notification to the industrial user of its responsibilities for compliance. Therefore, permit requirements must be clear and simple to understand.

5.3 COMMON PERMITTING ERRORS AND OMISSIONS

The permit writer should keep in mind that any of the following errors and omissions in the permit may cause it, at worst, to be susceptible to legal challenge or to fail to properly regulate the industrial user, and at best, to be misleading or confusing to the permittee:

- Failure to correctly calculate and apply effluent limitations from applicable pretreatment standards
- Failure to apply the most stringent limit (Federal categorical pretreatment standard, State requirement, or local limit)
- Failure to regulate all discharge points
- Omission of standard conditions
- Failure to specify adequate monitoring and/or analytical requirements, including a failure to identify specific monitoring locations
- Use of ambiguous or inappropriate permit commands, such as "should," "recommended," and "expected" rather than "required," "shall," "will," and "must"
CHAPTER 5  GENERAL PERMITTING CONSIDERATIONS

5.1 Failure to incorporate specific citations to requirements contained in an ordinance or regulation, where the requirements are not otherwise set forth in the permit.

5.2 Failure to specify the signatory requirements for self-monitoring reports and other notification requirements.

5.3 Failure to account for any known seasonal changes or other predictable variations in the effluent.

5.4 FLEXIBILITY

Specific conditions within each permit element should be tailored to the industrial user for which the permit is intended. While it may be obvious that very dissimilar industrial users will need different permit conditions, even similar industrial users may need permit conditions tailored to site-specific discharge situations. Table 5-1 (page 5-5) presents an example which illustrates the use of flexibility in the permit system.

Certain permit conditions are not flexible and cannot be modified. For example, the permit writer cannot modify categorical pretreatment standards and requirements or the general and specific prohibitions in 40 CFR 403.5. The following are Federal requirements that must be imposed on industrial users where they apply:

- Those conditions based on Federal pretreatment standards and requirements
- Use of the combined wastestream or flow weighted averaging formulas to derive appropriate limits for categorical industrial users where applicable
- Requirement to follow analytical methods in 40 CFR Part 136 or other EPA-approved methods for wastewater analyses.

Likewise, any condition mandated by State law or local ordinance with which the industrial user must comply typically cannot be modified by the permit writer, such as:

- Those conditions based on State pretreatment standards and requirements (unless otherwise specified)
Chapter 5  General Permitting Considerations

- Standard conditions adopted by the Control Authority
- Control Authority’s ability to modify or terminate the permit during its effective period
- Extent of the permittee’s enforcement liability in the event of noncompliance.

Flexibility is provided, however, in the drafting process allowing the permit writer to analyze comments and modify portions of the permit. Conditions which typically (depending on legal authority) may be modified in light of comments received and the particular circumstances include those regarding:

- Wastewater flow rate
- Production rates
- Pollutants of concern other than those addressed by Federal, State, or local regulations
- Monitoring location and frequency
- Special conditions
- Effective period (a maximum of five years is recommended).

5.5 Documenting Permit Decisions

Throughout the permit drafting process, the permit writer should carefully and thoroughly document each step. There are several reasons for this. First, it will assist the permit writer in developing the permit in a thorough and logical fashion. Second, it will facilitate defending any challenges that the permit terms and conditions were developed in an arbitrary or capricious manner. Finally, careful documentation will make future permit reissuance easier, particularly if a new permit writer is responsible for permit reissuance. Chapter 11 discusses development of the two critical elements needed to properly document the permit issuance process; a documentary record and a fact sheet.

9/15/89  5-4
TABLE 5-1. EXAMPLE OF PERMIT FLEXIBILITY

Company X, which manufactures product X, conducts metal finishing operations including zinc plating, phosphate coating (using a zinc-phosphate solution), and painting. The company has a history of zinc violations and has a continuous discharge of 35,000 gpd.

Company Y manufactures product Y and, like Company X, conducts metal finishing operations including zinc plating, phosphate coating, and painting. However, Company Y's operations are on a smaller scale. Plating is done only one or two days a week; the company has switched to an iron phosphate solution and recycles the phosphate solution and first rinse waters. The discharge is less than 3,000 gpd.

The Control Authority writes a permit for Company X that contains conditions based on the applicable metal finishing categorical pretreatment standards. The permit also requires weekly monitoring for zinc and monitoring for the other metals six times per year. Company Y's permit, like Company X's, contains conditions based on applicable metal finishing categorical pretreatment standards but requires only monthly monitoring for zinc (on a day when any batch discharges from the recycled phosphate solution and first rinse waters and plating operations occur) and a twice per year monitoring for all other metals regulated in the permit.
CHAPTER 6

COMPONENTS OF THE COVER PAGE

The most basic and, therefore, most frequently overlooked portion of a permit is the cover page. However, drafting the cover page improperly may have significant ramifications regarding permit enforceability. An example of a cover page is shown on page F-2 of Appendix F.

6.1 FORMAT

The cover page should have the appearance of a legal document. It is recommended that the cover page appear on official agency letterhead or stationery or on a special permit form.

6.2 ELEMENTS OF THE COVER PAGE

The cover page should contain the following:

- **Name and address of the permittee** - The correct and legal name of the permittee should be used. The facility's physical location address should be used. The mailing address can also appear on the cover page.

- **Citation to legal authority** - A specific citation to the Control Authority's legal authority to issue and enforce permit provisions.

- **Duty to comply** - The permittee's duty to comply with all applicable Federal, State, and local laws whether or not they are specifically incorporated into the permit.

- **Reapplication requirements** - The permittee's duty to reapply for continuation of the permit prior to the expiration date.

- **Effective period** - The permit's effective date and expiration date must be clearly set out. If the permit's effectiveness is to begin on a date other than the one on which it was signed or issued by the Control Authority, that effective date should appear clearly on the cover page. Although Control Authorities may establish shorter durations, the effective periods should extend no more than 5 years into the future for significant industrial users.
• **Signature of Control Authority** - The permit should be signed and dated only by a Control Authority official authorized to issue permits. Failure to sign and date the permit properly may call its validity into question at a later date. In addition, to avoid any possible misunderstanding that the permit is some form of contract, the industrial user should not sign the permit. For a further discussion see Chapter 3.

The cover page should also clearly state that a violation of any permit provision is a violation of the Control Authority’s sewer use ordinance and may subject the permittee to enforcement action. In addition, if the ordinance requires the industrial user to have a permit before it can commence its discharge, the cover page should indicate that the permit allows or grants the industrial user permission to discharge.
CHAPTER 7

EFFLUENT LIMITATIONS

This chapter explains how to select which pollutants to specifically regulate and how to derive effluent limits for application in a permit.

7.1 SELECTING POLLUTANTS TO BE REGULATED

To identify pollutants to be regulated, the permit writer must first determine what pollutants are present or suspected of being present in the wastewater. A determination can then be made on which of these pollutants to regulate. These two steps are outlined below. Of course specific permit limits must be developed, independent of this evaluation, for pollutants regulated by applicable Federal categorical pretreatment standards.

7.1.1 What Pollutants are Present

This first step is accomplished by reviewing the permit application and other supplemental materials requested from the industrial user. For example, analytical data on wastewater quality indicate actual pollutants present and the concentration/strength of these pollutants in the wastewater; a list of raw materials enables the permit writer to identify additional possible pollutants that could be present in the wastestream; and flow data help the permit writer identify variability in pollutant and hydraulic loadings.

7.1.2 Which Pollutants Require Regulation

After determining what pollutants are present, the permit writer must decide which of these pollutants require regulation. The permit should contain effluent limits based on:

- National prohibited discharges (general and specific) [40 CFR 403.5(a) and (b)]
CHAPTER 7  EFFLUENT LIMITATIONS

- Categorical pretreatment standards [40 CFR Parts 405-471]
- Local limits [40 CFR 403.5(c) and (d)].

The examples in Table 7-1 (page 7-13) illustrate how a permit writer selects pollutants for regulation.

7.1.2.1 National Prohibited Discharges

Section 403.5(a) and (b) of the General Pretreatment Regulations establishes general and specific prohibitions that apply to all nondomestic users that discharge to POTWs (see Table 7-2 on page 7-14). Local ordinances for POTWs with approved pretreatment programs should already include authority for local enforcement of these provisions. As of the date of publication of this manual, EPA was proposing additional prohibited discharges [see 53 FR 47632]. The permit writer is cautioned to keep informed of developments in this area to ensure that all permits accurately incorporate all Federal pretreatment requirements.

Table 7-3 (page 7-15) is an example of incorporating the National specific prohibitions with other locally derived prohibitions into a permit. The preferred means is by direct inclusion of verbatim language from the sewer use ordinance. This language may be inserted either in the effluent limits section or in the standard conditions section of the permit. Another method of incorporating the prohibitions in the permit is to refer to the ordinance section containing those standards.

7.1.2.2 Categorical Pretreatment Standards

Categorical pretreatment standards are technology-based standards for a selected group of industries established by EPA under authority of the Clean Water Act. These standards are developed based upon industry-wide studies of
current treatment practices for pollution control and, therefore, establish national baseline pollution control requirements for the regulated industrial categories. Pretreatment standards are generally promulgated for both existing sources and new sources. These standards may be the same or different. If an industrial user is subject to categorical pretreatment standards, the permit writer must include effluent limits based on these standards in the user's permit. In order to include all relevant categorical pretreatment standards in the permit, the permit writer must be familiar with specific categorical pretreatment standards to which the industrial user is subject and follow the rules below to apply categorical pretreatment standards.

Rules for Applying Categorical Pretreatment Standards

- Determine the proper category and subcategory for the industrial processes operated by the permittee.
- Identify all regulated, unregulated, and dilution wastestreams.
- Identify appropriate sampling locations.
- Categorical standards apply directly to the regulated wastestream or at the end of pretreatment of the regulated wastestream. When the designated sampling location described in the permit contains a regulated wastestream and one or more other wastestreams (dilution, regulated, or unregulated), then the Combined Wastestream Formula (CWF) or the Flow Weighted Averaging Formula (FWA) must be used to calculate appropriate effluent limits based on the categorical pretreatment standards.
- Effluent limits based on both the daily maximum and the monthly average categorical pretreatment standards must be included in the permit.
- Limitations on all pollutants regulated by the categorical pretreatment standards must be included in the permit, even though the industrial user may not discharge all of the regulated pollutants. Note, however, that some of the categorical regulations allow the use of indicator pollutants or allow exemptions from monitoring for certain pollutants.
- The Control Authority has the option of converting production-based categorical pretreatment standards to equivalent mass or equivalent concentration limits.
Categorical pretreatment standards establish the compliance date(s) by which industrial users covered by the standards must be in compliance. The Control Authority cannot extend these Federally-promulgated dates in the permit.

Several EPA documents provide guidance on how to apply categorical pretreatment standards. Appendix A of this manual provides an alphabetical listing of all currently available development documents and guidance manuals; these should be used to supplement the information provided in this section and in the standards themselves for incorporating into permits effluent limits based on the standards.

Rules for Applying Production-Based Categorical Pretreatment Standards

The incorporation of production-based categorical pretreatment standards in permits involves special considerations. These standards are expressed in terms of an allowable pollutant mass discharge per unit of production, such as pounds of pollutant per 1,000 pounds of product produced. The standards can be placed in the permit verbatim from the regulations. The permit should then require the industrial user to submit actual production data from the date(s) on which the compliance samples were collected and to calculate the actual mass of pollutant(s) discharged, based on flow and concentration, to evaluate compliance for that specific day.

Often, it may be impractical or difficult for the Control Authority to independently determine or verify compliance since the production rate as well as the wastestream flow and pollutant concentration must be known. The Control Authority has the option of using equivalent mass or concentration limits [40 CFR 403.6(c)]. Equivalent mass or concentration limits use an industry's long-term average daily production and flow rates to derive the corresponding daily maximum and monthly average limits. The applicable formulas are shown in Table 7-4 (page 7-17).
The industrial user permit may function as the legal document for the conversion of production-based standards to equivalent mass or concentration limits. These equivalent limits are deemed pretreatment standards under section 307(b) of the Clean Water Act and are Federally enforceable.

It is critical when converting production-based standards to equivalent mass or concentration limits that the permit writer correctly calculate the equivalent limits and document the calculations. A permit containing equivalent limits must clearly specify: (1) the applicable equivalent limits; (2) the flow and production rates upon which the limits are based; (3) the requirement that the industrial user report a reasonable measure of its long-term production rate in each periodic compliance report; (4) the requirement that the industrial user notify the Control Authority of significant changes in long-term flow and/or production rates within two days of knowing that they will change in the next calendar month; and (5) a provision that the Control Authority may modify the permit based upon such new information. Table 7-5 (page 7-18) provides an example.

Determining the appropriate production rate is one of the critical factors in deriving equivalent limits. EPA recommends using a production figure that approximates the long-term average. Data for a day, week, month, or year that are unusually high or low should not be used; three to five years of data should be reviewed to determine the appropriate long-term average. For example, after reviewing 5 years of data, the permit writer could select the highest yearly average (provided this value was not unusually high). If a facility does not have good historical data, as in the case of a new facility or a facility which has had significant operational changes, the permit writer will have to rely on the facility's future projections for production. Detailed guidance and procedures for developing and applying equivalent limits and example problems are presented in EPA's Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastestream Formula. The permit writer is encouraged to use this guidance manual when developing equivalent limits. If an industrial user is expected to have significant
7.1.2.3 Local Limits

Section 403.5(c) of the General Pretreatment Regulations requires Control Authorities to develop and enforce specific limits to implement the general prohibition against pass through and interference [40 CFR 403.5(a)] and the specific prohibitions [40 CFR 403.5(b)]. In December 1987, EPA published an extensive guidance document on the development and implementation of local limits (Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program). For the purposes of this guidance manual, it is assumed that the Control Authority has developed local limits in accordance with this guidance or some other acceptable approach.

The Control Authority may have established local limits for any number of pollutants. There are several considerations which may affect the Control Authority's decision on how to incorporate these local limits into industrial user permits. Two principal considerations are whether or not the sewer use ordinance contains all the local limits and whether the Control Authority has allocated the same limits to all industrial users or different limits to different industrial users.

When uniform local limits for all users appear in the sewer use ordinance, the permit writer can include such limits in industrial user permits in two ways: 1) list only those pollutants and their limits that are known or believed to be present in the discharge and include a narrative statement requiring compliance with all local limits contained in the sewer use ordinance; or 2) list all local limits contained in the sewer use ordinance. The first approach highlights those pollutants in that industrial user's discharge, and the narrative statement ensures that all local limits...
are also imposed as a permit condition. The second approach ensures that the industrial user is aware of all local limits. The permit writer can establish monitoring requirements for the pollutants present in the discharge. However, the monitoring frequency for pollutants known to be absent, or present at levels at or below local background concentrations, could be minimal.

If the uniform local limits do not appear in the Control Authority's sewer use ordinance, then the permit should contain all of the local limits. The permit writer can structure the permit so that limits for those pollutants discharged by the industrial user are highlighted.

The Control Authority may develop industry-specific local limits. Because each permitted industry receives different numerical limits, it is difficult to incorporate them into a local sewer use ordinance. In this situation, the ordinance will generally cite the authority to develop and implement local limits and state that these limits will be enforced through industrial user permits. If this method is used, all local limits applicable to the facility should be included in its permit. This is particularly important because the limits are not incorporated in the ordinance. The monitoring frequency for any pollutant of concern could then be set based on the pollutant's presence in the wastestream.

7.2 APPLYING EFFLUENT LIMITS

It is important that the permit writer correctly apply the effluent limits in the permit. The permit should clearly designate the point where the limits apply (e.g., pipe 01), the period in which the limits apply (e.g., from a specific date to a specific date if different from the effective time period of the permit), and the units (e.g., mg/l or lbs/day). In addition, the effluent limits should be expressed in terms of the duration for which the limits themselves are intended to apply (e.g., instantaneous maximum, daily maximum, or monthly average) and these terms should be well defined. For example, a daily maximum limit is defined as the average concentration.
measured over a 24-hour period (for a concentration limit) or the total mass discharged over a 24-hour period (for a mass limit). On the other hand, instantaneous maximum limits are the maximum concentrations in any sample collected, regardless of the collection period.

7.2.1 Relationship of Local Limits to Categorical Pretreatment Standards

Categorical pretreatment standards and local limits are distinct and complementary types of pretreatment standards. Promulgation of a categorical pretreatment standard by EPA in no way relieves a Control Authority from its obligation to evaluate the need for, and to develop, local limits to meet the general and specific prohibitions in the General Pretreatment Regulation. As mentioned earlier, categorical pretreatment standards are developed to achieve a degree of water pollution control for selected industries and pollutants based on an assessment of available technology and costs. Local limits are intended to prevent site-specific plant and environmental problems resulting from particular nondomestic users.

In implementing its pretreatment program, a Control Authority is required to enforce the "applicable pretreatment standard" (i.e., Federal, State, or local, whichever is most stringent). When the Control Authority is drafting a permit for an industrial user subject to categorical pretreatment standards, the task of applying the applicable effluent limits can be complicated. Local limits are often more stringent than categorical pretreatment standards since they are based on local site-specific situations. In addition, there may be local limits for more pollutants than are regulated in the applicable categorical pretreatment standard. Therefore, a permit may contain a mixture of categorical pretreatment standards and local limits. One complicating factor is that, in contrast to the categorical pretreatment standards which apply to individual discharges from regulated processes (end-of-process), local limits normally apply at the point(s) of discharge to the public sewer system (end-of-pipe).
In the situation where the industrial user's discharge to the public sewer contains only wastewater from a process regulated under a particular categorical standard, the end-of-process pollutant load is the same as the end-of-pipe. The determination of which limits apply, local or categorical, is accomplished by simply choosing the limit which is numerically more stringent. More commonly, the industry's discharge at the point of connection contains other regulated wastestreams, unregulated wastestreams, and/or dilution wastestreams. If categorical standards are to be applied at the point of connection where dilution or unregulated wastestreams exist, the permit writer must use the combined wastestream formula or flow-weighted average formula to adjust the categorical pretreatment standards to end-of-pipe limits. EPA's Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastestream Formula (and 51 FR 21454 and 53 FR 40562) contains guidance on these two formulas. These adjusted limits must then be compared to the Control Authority's local limits and the most stringent would be included in the permit. The example in Table 7-6 (page 7-19) illustrates the results of comparing Federal and local limits.

In other instances the Control Authority may find it necessary or preferable to monitor the industrial discharge at more than one location. In this case the permit must clearly indicate where the specific limits apply and where samples for various parameters must be collected. For example, a Control Authority may want to regulate a metal finishing industry by requiring monitoring for local limits at the connection to the sewer system, monitoring for categorical pretreatment standards at the discharge from the pretreatment facility, and monitoring for cyanide on the segregated wastestream from the cyanide destruct unit of the pretreatment facility.

7.3 TIERED PERMITS

The Control Authority may encounter situations where one set of effluent limits may not be appropriate for the permit's entire period. A tiered permit may be appropriate in such situations, eliminating the need for continual
permit revisions. For example, an industrial user may be issued one set of limits for the average production rate and another set which take effect when there is a significant change in the average production rate. Generally, a 10 to 15 percent deviation above or below the long-term average production is within the range of normal variability. Predictable changes in the long-term production higher than this range could warrant consideration of a tiered permit. Tiered permits are recommended where the long-term average production varies by 20 percent or greater. Typically, there are three situations where tiered permits are warranted.

The first situation would involve a facility which the Control Authority knows will begin a new process or add a new process line during the term of the permit. In this instance the permit writer could include two sets of limits; one set for the current conditions, and one set for the future conditions. The permit should also clearly state the terms and conditions under which each set of limits would apply.

The second situation would involve an industry which has an annual pattern of low and high production rates. For example, an industry that produces Christmas items may operate at only 40-50 percent capacity from January through June, but at full capacity from July through December. In this instance the permit writer would also develop two (or more) sets of limits for the industry. For seasonal variations the permit could stipulate either dates or production levels which would trigger the application of one set of limits versus another.

For this type of permit, a special condition should be included in the permit which requires the industrial user to notify the Control Authority when this scheduled production charge occurs and/or if unexpected circumstances cause seasonal operations to differ from the fixed periods defined in the permit.
The third scenario would involve an industry where the demand is variable and the permit modification process is not fast enough to respond to the need for higher or lower equivalent limits. A permit might be written with two or three tiers which apply to ranges of production. For example, a hypothetical battery plant has a historical average production rate that varies between 40 and 100 percent with a maximum average production rate of $2.0 \times 10^6$ lbs/day. The plant is subject to a production-based categorical standard for pollutant $X = 1$ lb/million lb of product (daily maximum). Alternate effluent limits might be set as follows:

First Tier: Basis of Calculation = $1 \times 10^6$ lbs/day  
Limit for Pollutant $X = 2.0$ lbs/day (daily maximum)  
Applicable Production Range = $0.8 \times 10^6$ to $1.2 \times 10^6$ lbs/day

Second Tier: Basis of Calculation = $1.4 \times 10^6$ lbs/day  
Limit for Pollutant $X = 2.8$ lbs/day (daily maximum)  
Applicable Production Range = $1.2 \times 10^6$ to $1.6 \times 10^6$ lbs/day

Third Tier: Basis of Calculation = $1.8 \times 10^6$ lbs/day  
Limit for Pollutant $X = 3.6$ lbs/day (daily maximum)  
Applicable Production Range = $1.6 \times 10^6$ to $2.0 \times 10^6$ lbs/day

The first tier has an applicable production range that covers plus or minus 20 percent of the basis of the calculation for that tier. This can be seen by noting that the basis of calculation for the first tier is $1 \times 10^6$ lbs/day and the threshold level that would trigger the next tier is set at $1.2 \times 10^6$ lbs/day or 20 percent higher. Similarly, the second and third tiers have applicable production ranges of 14 percent and 11 percent, respectively. This is consistent with the general rule (mentioned earlier) that a 10 to 15 percent change in average production rate is within the range of normal variability while a 20 percent or greater change should warrant alternate limits.
CHAPTER 7  

EFFLUENT LIMITATIONS

The production range for each tier must be specified in the permit and the industrial user must be required to report the measurements or estimates of the actual production rate which prevailed during the reporting period. The anticipated production rate for the next reporting period should also be reported.

For this type of permit, a special notification condition should be included in the permit which requires the industrial user to notify the Control Authority within 30 days prior to a change in production.

A tiered permit requires an increased technical and administrative role by the Control Authority to verify compliance with effluent limits. This type of permit should be issued only after careful consideration and only when a substantial change in the long-term average rate of production or other changes which effect permit conditions are likely to occur.
TABLE 7-1. EXAMPLES OF SELECTING POLLUTANTS FOR REGULATION

EXAMPLE 1. SELECTION OF CONVENTIONAL POLLUTANTS FOR REGULATION

The operator at the Cleanwater POTW noticed that periodically the influent to his plant was milky white. He collected an influent sample and noted that the milky color was due to very fine particles in the waste which did not settle readily but produced a high total suspended solids (TSS) value. As a result, the plant violated its NPDES TSS limit. The operator traced the milky white discharge to ABC Company. After reviewing data indicating extremely high TSS concentrations from ABC Company's discharge, the permit writer included a TSS limit in the ABC Company's permit to reduce the TSS load to the POTW and thus prevent pass through.

EXAMPLE 2. SELECTION OF TOXIC ORGANIC POLLUTANTS FOR REGULATION

In reviewing the discharge data for the Double D Company, the permit writer noticed that the discharge contained 106 mg/l of 2,4,6-trichlorophenol and 5.3 mg/l of pentachlorophenol. At this point, the permit writer was faced with a problem. The POTW's NPDES permit did not contain limits for these pollutants and no data were available on the levels of these pollutants in the POTW's effluent, influent, or sludge. Since the permit writer did not know the concentrations of either pollutant at the treatment plant, he decided to have the POTW analyze its influent, effluent, and sludge for the organic priority pollutants. The resulting data indicated concentrations of 0.580 mg/l and 0.060 mg/l of 2,4,6-trichlorophenol and pentachlorophenol, respectively, in the treatment plant's influent. Sludge and effluent data indicated the presence of both pollutants, with pentachlorophenol present in the effluent at levels exceeding State ambient water quality criteria. Based on concern for the water quality of the receiving stream and based on broad authority in the local ordinance for the POTW to regulate industrial users so as to prevent harm to the environment, the permit writer established local limits for both compounds and include the requirements in the Double D Company's permit.

EXAMPLE 3. SELECTION OF POLLUTANTS BASED ON POTENTIAL HEALTH RISKS

The Anytown POTW superintendent had not noticed any apparent inhibition of his treatment system but plant operators complained periodically about strong organic smells in the wet well and at Triple T Company's sampling manhole. In reviewing the discharge data from the Triple T Company, he noticed that the company discharged 1,2 dichloroethane. Additional sampling of the gases in the collection system revealed concentrations of 1,2 dichloroethane that exceeded the Occupational Safety and Health Administration's Immediately Dangerous to Life and Health (IDLH) levels. Due to his concerns about the health and safety of the workers at the POTW, the superintendent decided to establish a local limit and regulate 1,2 dichloroethane in the Triple T Company's permit.
TABLE 7-2. NATIONAL PROHIBITED DISCHARGES

**General Prohibitions**

A User may not introduce into a POTW any pollutants which cause Pass Through or Interference [40 CFR 403.5(a)(1)].

**Specific Prohibitions**

The following pollutants shall not be introduced into a POTW:

- Pollutants which create a fire or explosion hazard in the POTW [40 CFR 403.5(b)(1)]

- Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the POTW is specifically designed to accommodate such discharges [40 CFR 403.5(b)(2)]

- Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference [40 CFR 403.5(b)(3)]

- Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW [40 CFR 403.5(b)(4)]

- Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 degrees C (104 degrees F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits [40 CFR 403.5(b)(5)].
TABLE 7-3. EXAMPLE OF INCORPORATING PROHIBITED DISCHARGES IN PERMIT

VERBATIM IN STANDARD CONDITIONS SECTION OF PERMIT

Part IV - STANDARD CONDITIONS

1. The permittee shall comply with all the general prohibited discharge standards in Section 5 of the City Ordinance. Namely, the industrial user shall not discharge wastewater to the sewer system:

   o Having a temperature which causes the influent at the POTW to exceed 104 degrees F.

   o Containing more than 100 mg/l of fats, oils, and grease.

   o Containing 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 sewer system or to the operation of the sewer system. 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.

   o Containing any solid or viscous substances which may cause obstruction to the flow in a sewer or other interference with the operation of the sewer system such as, but not limited to: grease, garbage with particles greater than one-half inch (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, straw, 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.

   o Having a pH lower than 5.0 or higher than 11.0, or having any other corrosive property capable of causing damage or hazards to structures, equipment, or personnel of the sewer system.
TABLE 7-3. EXAMPLE OF INCORPORATING PROHIBITED DISCHARGES IN PERMIT (Continued)

- Containing toxic or poisonous substances in sufficient quantity to injure or interfere with any wastewater treatment process or to constitute hazards to humans or animals or to create any hazard in waters which receive treated effluent from the sewer system treatment plant.

- Containing any substance which may affect the City's wastewater treatment facility's effluent and cause violation of the NPDES permit requirements or the receiving water quality standards.

- Containing any substance which would cause the City's wastewater treatment facility to be in noncompliance with sludge use, recycle, or disposal criteria pursuant to guidelines or regulations developed under Section 405 of the Federal Act, the Clean Air Act, the Resource Conservation and Recovery Act Subtitle C, the Toxic Substance Control Act, the Marine Protection Research Sanctuary Act, the Safe Drinking Water Act Subtitle C, or other state law or regulations for sludge management and disposal.

- Containing any pollutant, including BOD pollutants, released at a flow rate and/or pollutant concentration which would cause interference with the sewer system treatment plant.
### Table 7-4. Formulas for Calculating Equivalent Limits from Production-Based Standards

<table>
<thead>
<tr>
<th>Equivalent Mass Limit (lb/day)</th>
<th>Categorical Standard (lb/day/1,000 lbs)</th>
<th>Production Rate (in 1,000 lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent Concentration (mg/l)</td>
<td>Categorical Standard (lb/day/1,000 lbs)</td>
<td>Production Rate (in 1,000 lbs)</td>
</tr>
</tbody>
</table>

\[
\text{Long Term Average Daily Production Rate (in 1,000 lbs)}
\]

\[
\text{Long Term Average Process Effluent Flow (in MGD) x 8.34*}
\]

* Converts mg/l to lbs/million gallons
TABLE 7-5. EXAMPLE OF INCORPORATING PRODUCTION-BASED STANDARDS AS EQUIVALENT MASS LIMITS IN A PERMIT

Part I. **Effluent Limitations**

A. **Description of Discharges**

<table>
<thead>
<tr>
<th>Pipe</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Discharge of wastewater generated by all regulated battery manufacturing processes at the facility</td>
</tr>
</tbody>
</table>

B. **Effluent Limits**

Effective no later than March 9, 1987, and lasting until the expiration date of this permit, the permittee is authorized to discharge wastewater from pipe 01. This discharge shall be limited as specified below:

<table>
<thead>
<tr>
<th>Limited Parameter</th>
<th>Daily Maximum</th>
<th>Monthly Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Copper</td>
<td>0.021</td>
<td>0.011</td>
</tr>
<tr>
<td>Total Lead</td>
<td>0.005</td>
<td>0.002</td>
</tr>
</tbody>
</table>

C. **Notification of Production Changes**

The production rate that was used to calculate the equivalent mass per day limits in this permit is:

- 0.1 million pounds of lead used per day

The permittee must report a reasonable measure of its long-term production rate in each periodic compliance report submitted to the City. In addition, the permittee must notify the City immediately of a significant change in this production rate which would cause the equivalent mass limits to have to be revised. A significant change is an increase or decrease of 20 percent from the rate stated above.

D. **Modification**

This permit may be reopened and the effluent limits modified based upon any changed production rate reported in C above.
## TABLE 7-6. EXAMPLE OF FACT SHEET DOCUMENTING DETERMINING THE MOST STRINGENT DAILY MAXIMUM EFFLUENT LIMITS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Daily PSES</th>
<th>Monthly PSES</th>
<th>Daily CWF</th>
<th>Monthly CWF</th>
<th>Local Final Limit</th>
<th>Daily Final Limit</th>
<th>Monthly Final Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>0.69</td>
<td>0.26</td>
<td>0.46</td>
<td>0.17</td>
<td>0.1</td>
<td>0.1</td>
<td>--</td>
</tr>
<tr>
<td>Chromium (Hex)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>0.1</td>
<td>0.1</td>
<td>--</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>2.77</td>
<td>1.71</td>
<td>1.85</td>
<td>1.14</td>
<td>1.0</td>
<td>1.0</td>
<td>--</td>
</tr>
<tr>
<td>Copper</td>
<td>3.38</td>
<td>2.07</td>
<td>2.26</td>
<td>1.38</td>
<td>5.0</td>
<td>2.26</td>
<td>1.38</td>
</tr>
<tr>
<td>Cyanide</td>
<td>1.20</td>
<td>0.65</td>
<td>*</td>
<td>*</td>
<td>2.0</td>
<td>1.20</td>
<td>* 0.65</td>
</tr>
<tr>
<td>Lead</td>
<td>0.69</td>
<td>0.43</td>
<td>0.46</td>
<td>0.29</td>
<td>0.1</td>
<td>0.1</td>
<td>--</td>
</tr>
<tr>
<td>Manganese</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1.0</td>
<td>1.0</td>
<td>--</td>
</tr>
<tr>
<td>Mercury</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>0.005</td>
<td>0.005</td>
<td>--</td>
</tr>
<tr>
<td>Nickel</td>
<td>3.98</td>
<td>2.38</td>
<td>2.66</td>
<td>1.59</td>
<td>2.0</td>
<td>2.0</td>
<td>1.59</td>
</tr>
<tr>
<td>Silver</td>
<td>0.43</td>
<td>0.24</td>
<td>0.28</td>
<td>0.16</td>
<td>0.1</td>
<td>0.1</td>
<td>--</td>
</tr>
<tr>
<td>Zinc</td>
<td>2.61</td>
<td>1.48</td>
<td>1.74</td>
<td>0.99</td>
<td>5.0</td>
<td>1.74</td>
<td>0.99</td>
</tr>
<tr>
<td>TTO</td>
<td>2.13</td>
<td>--</td>
<td>1.42</td>
<td>--</td>
<td>1.0</td>
<td>1.0</td>
<td>--</td>
</tr>
</tbody>
</table>

**Note:** All concentrations are in mg/l unless otherwise noted.

**Key:**

- **PSES** - Pretreatment Standards for Existing Sources, metal finishing category [40 CFR Part 433.15(a)]
- **CWF** - Alternative metal finishing standards after use of combined wastestream formula
- **Local Limit** - Maximum pollutant concentrations established by the Control Authority
- **Final Limit** - Final limits based on most stringent of local, State, and Federal standards

* Cyanide limits shall apply to the segregated cyanide wastestream of the cyanide destruct treatment process.
CHAPTER 8

MONITORING AND REPORTING REQUIREMENTS

Once an industrial user's effluent limits are developed, the permit writer's next step is to establish monitoring and reporting requirements. Requiring the industrial user to routinely self-monitor and to report the results of such monitoring enables the Control Authority to keep informed about characteristics of the user's discharge and compliance status so that any necessary permit modifications or enforcement actions can be initiated. Periodic self-monitoring also serves as a reminder to the industrial user that compliance with the effluent limits is its responsibility. Pretreatment facilities do not run themselves; if an industrial user is not monitoring, then it does not know how well the pretreatment controls are working. The Control Authority should be aware of and concerned with the potential problems of self-monitoring, such as improper sample collection, poor analytical techniques, and falsification of records. To prevent or minimize these problems, the permit writer should clearly detail monitoring and reporting requirements in the permit.

The permit's monitoring and reporting section should contain specific requirements for each of the following items:

- Sampling location
- Pollutants to be monitored
- Sample collection method
- Monitoring frequencies
- Analytical methods
- Reporting requirements.
CHAPTER 8 MONITORING AND REPORTING REQUIREMENTS

Several factors should be considered in determining the specific requirements to be imposed. Basic factors which affect sampling location, sampling method, sampling frequency, and reporting frequency are:

- Applicability of categorical pretreatment standards
- Effluent and process variability
- Flow and/or pollutant loading
- Type of pollutant.

These factors must be carefully considered by the permit writer, as any error can lead to inaccurate compliance determination or misapplication of Federal or local requirements. In particular, several categorical pretreatment standards contain special monitoring requirements for specific regulated pollutants (See Table 8-1, page 8-15).

8.1 SAMPLING LOCATIONS

Selection of the appropriate sampling point(s) is critical in determining compliance with effluent limits. In determining the appropriate sampling locations, the following rules should be applied:

- Sampling location(s) must coincide with the point(s) at which the effluent limits apply
- Sampling location(s) must produce a sample representative of the nature and volume of the industrial user's effluent
- Sampling locations must be safe, convenient, and accessible to industrial user and Control Authority personnel.

If there is no ready access to a representative sampling point, the Control Authority should require the permittee to provide such access including, if necessary, installation of sampling manholes. The sampling location(s) chosen should also allow the measurement or estimation of volume of wastewater flow.
Because the Control Authority's local limits generally apply to the entire discharge from an industrial user, a sewer manhole located at the connection between the industrial facility's sewer pipe and the Control Authority's sewer pipe is usually selected as the sampling point. Such a sampling manhole allows easy access by the Control Authority and usually facilitates the collection of a sample of the user's total discharge. However, in some cases, this manhole may contain wastewater discharges from upstream domestic or industrial users connected to the Control Authority's sewer pipe, making it impossible to obtain a sample of any one industrial user's discharge. In this instance the Control Authority should identify a more appropriate sampling location.

One additional important factor must be considered when establishing an appropriate sampling location at an industrial facility subject to categorical pretreatment standards. Categorical pretreatment standards are numerical limits that apply to specific regulated wastestreams before these wastestreams are mixed or diluted with other flows. Because of this factor, the sampling point(s) chosen must provide representative samples of these regulated wastestreams and should be located after pretreatment of these wastestreams if such treatment is utilized. If other regulated, unregulated, or dilution wastestreams are combined prior to the pretreatment facility, and sampling of the effluent occurs after pretreatment, the combined wastestream formula must be used to adjust the categorical pretreatment standards to account for other regulated, unregulated, and dilution wastestreams. However, if regulated and unregulated or dilution wastestreams are combined after treatment but prior to the facility's monitoring point, a different formula must be used.

EPA has clarified, in the preamble to the October 17, 1988 revisions to the General Pretreatment Regulations [53 FR 40562], that a flow weighted averaging formula or a more stringent calculation must be used to adjust applicable categorical pretreatment standards where unregulated and dilution flows combine after pretreatment but prior to sampling. (See also the
Each of the above factors must be considered by the permit writer to identify the most practical and most representative sampling location(s). Once the sampling locations are selected, the permit writer must clearly specify these sampling locations in the permit. The permit writer should not assume that the sampling locations are known by other Control Authority staff or by the permittee. Changes in either Control Authority or industrial personnel can result in loss of knowledge of the exact sampling location unless the sampling locations are clearly defined in the permit. Examples in Table 8-2 (page 8-18) illustrates three ways of specifying sampling locations by using brief narrative descriptions, designation by numbers, and a diagram. If one or more sampling points are identified, each location and the limits that apply should be clearly specified in the industrial user’s permit.

8.2 POLLUTANTS TO BE MONITORED

The POTW should always require industrial user self-monitoring for all pollutants limited by specific numerical values in the industrial user permit. Industrial users subject to categorical pretreatment standards are required to monitor and report the analytical results for all regulated pollutants in order to comply with the reporting requirements of 40 CFR 403.12(e) of the General Pretreatment Regulations. Some categorical pretreatment standards allow alternatives to sampling specific regulated pollutants. The permit writer needs to review the specific monitoring and reporting requirements contained in the applicable categorical pretreatment regulations. In addition, EPA’s Guidance Manual for Implementing Total Toxic Organics (TTO) Pretreatment Standards contains guidance on the total toxic organic monitoring alternatives.
CHAPTER 8 MONITORING AND REPORTING REQUIREMENTS

The Control Authority need not limit the pollutants to be sampled to only those subject to effluent limits. It may require the industrial user to monitor for other pollutants of potential concern. In this case, a monitoring-only requirement may be included as a special condition of the permit (discussed in more detail in Chapter 10). The permit writer should also require the industrial user to monitor flow (even if flow is not limited). A flow monitoring requirement is necessary where mass limits are imposed in order to determine compliance with mass limits. A flow monitoring requirement can also serve as a reminder to collect flow data for those categorical industrial users who are required to report daily maximum and average flows in semiannual reports [40 CFR 403.12(g)].

8.3 SAMPLE TYPE

The permit should specify the sample collection method or type of sample(s) for each pollutant to be monitored. In general, two types of samples may be taken: grab or composite. The permit writer should review the sampling objectives and the advantages and disadvantages of each sample type. However, whenever possible, flow proportional composite samples should be required except for pollutants which require grab sampling techniques.

Since there are two types of composite samples, time proportional and flow proportional, the permit writer should clearly specify or define the sample type. The sample period should also be specified. Generally, the sample period is 24 hours but if the industrial user’s discharge is 8 hours in duration each day the permit writer could specify that the composite sample be collected over the 8 hours of discharge. The number of grab samples should be specified (e.g., a minimum of four per day at equal time intervals or a grab sample taken after a specified volume of wastewater has been discharged).

8.3.1. Grab Sample

A grab sample is a single discreet sample collected over a time period not exceeding 15 minutes, without any regard to the wastestream’s flow. Grab
samples may be used when both wastewater flow and pollutant concentrations or loadings are constant over time. Grab samples may also be used for batch discharges, such as a contaminated process tank that is periodically discharged. However, a batch discharge must be homogeneous in order to be accurately represented by a grab sample.

Grab samples are useful in characterizing an industrial user's fluctuations or extremes in wastewater flow and quality (i.e., changes in pollutant concentrations or loadings) and, therefore, are useful in identifying slug loads. These samples are also appropriate to determine compliance with "instantaneous" effluent limits where a composite sample could mask extreme conditions in the wastewater. The pH parameter can illustrate this concept clearly: a composite sample could exhibit a neutral pH, while individual grab samples could exhibit a wide range of pH.

Grab samples should be used when storing or compositing of a sample will alter the concentration or characteristics of pollutants being measured. Parameters which necessitate grab sampling techniques include pH, oil and grease, temperature, total phenol, cyanide, sulfides, and some volatile organics (purgeable halocarbons, purgeable aromatics, acrolein, and acrylonitrile).

8.3.2. **Composite Sample**

Composite samples are used to measure the average amount of pollutants discharged by an industrial user during the composite period. Composite samples are preferred when evaluating compliance with 24-hour or daily average concentration limits and mass limits. Samples may be obtained as either time-proportional or flow-proportional.

Time-proportional composite samples are generally collected under conditions of constant or slightly fluctuating effluent flows. For a non-homogeneous batch discharge, wastes are stratified in a tank and the
effluent's quality will vary over the period of batch discharge. For this situation, a time-proportional composite sample collected over the period of discharge would be most appropriate. Flow-proportional composite samples are collected when both an industrial user's effluent flow and pollutant concentrations or loadings exhibit irregular changes. For pollutants for which grab samples are not necessitated, flow-proportional composite samples should always be used to determine compliance with categorical pretreatment standards. However, the permit writer may specify time-proportional composite samples or grab samples where flow-proportional samples are not feasible and the use of these other sampling techniques will provide a representative sample.

8.4 MONITORING FREQUENCIES

The Control Authority has considerable discretion in establishing monitoring frequencies. However, Federal regulations [40 CFR 403.12(e)(1)] specify a minimum reporting frequency of twice per year to demonstrate "continued compliance" with categorical pretreatment standards. Therefore, monitoring frequencies must be no less than twice per year [see 40 CFR 403.12(g)]. In addition, the Control Authority should also require twice annual monitoring and reporting from all other significant industrial users [see proposed rule at 53 FR 47632]. Furthermore, monitoring must be conducted to satisfy baseline monitoring report, 90-day compliance report and repeat noncompliance monitoring reporting requirements pursuant to 40 CFR 403.12. In establishing monitoring frequencies, the permit writer's primary task is to achieve a reasonable balance between the need for sufficient representative data to assess compliance and the expense or burden of obtaining such data. Each of the following factors should be considered by the Control Authority as it develops both the industrial user self-monitoring requirements and its own compliance monitoring program:

- Frequency necessary to obtain data representative of the nature and volume of the industrial user's wastewaters
CHAPTER 8  MONITORING AND REPORTING REQUIREMENTS

- Amount of historical data available to characterize the industry’s discharge (industries with no historical data should be sampled more frequently)

- Actual (or potential) impact of the industrial user’s wastes on the operation of the Control Authority’s treatment plant, receiving stream, and sludge disposal practices

- Types of pollutants contained in a facility’s wastewaters and the concentrations or loadings discharged

- Regulatory requirements of any existing industrial user permits, local sewer use ordinances, POTW policy statements, or Federal regulations and policies

- Any seasonal variations experienced in the industrial user’s manufacturing operations and wastewater flow

- Length of the industrial user’s operating day or the number of shifts worked per day

- Industrial user’s history of upsets or accidental spills or lack of spill prevention plans for raw materials, process wastewaters, or chemicals stored onsite

- Reliability of the industrial user’s pretreatment facilities

- Any scheduled discharges of unusual or extraordinary strength and/or volume (i.e., batch discharges of process tanks or routine clean-up periods scheduled each day, week, or month)

- Compliance (or noncompliance) history of the industrial user

- Expense of monitoring imposed on both the industrial user and the Control Authority and the resources (labor and equipment) available.

The Control Authority may wish to develop a base level monitoring frequency to be imposed on all industrial users and use the above factors to increase or decrease the monitoring frequencies on a case-by-case basis from the established base monitoring frequency. EPA’s Pretreatment Compliance Monitoring and Enforcement Guidance contains recommended frequencies based on five flow categories using flow as an indication of potential impact on the treatment plant and ability of user to bear the monitoring cost (see Table 8-3, page 8-19). The Control Authority could also adopt the monitoring
frequency EPA used in developing categorical pretreatment standards
generally, this frequency is 10 times per month for inorganics).

For pollutants not reasonably expected to be present, the permit writer
may decide to decrease monitoring frequencies to a minimum frequency of twice
per year. For example, the permit for a metal finisher that does not use
cadmium or cyanide and has never detected these pollutants in its effluent may
provide for the minimum monitoring frequency of twice per year for those
pollutants. Such a condition provides a means of verifying the absence of
those pollutants and satisfies the regulatory requirement.

For operations that are seasonal, the permit writer may want to require
increased monitoring during peak operations. For batch discharges, monitoring
frequencies could be geared to the frequency of discharge. For example, the
permit writer could require a small electroplater which batch discharges once
a month to monitor once a month when the batch discharge occurs.

Table 8-4 (page 8-20) illustrates how monitoring frequencies can be
specified in the permit. Additional special monitoring requirements may be
placed with the monitoring requirements section of the permit or in the
special conditions section of the permit discussed in Chapter 10.

8.5 ANALYTICAL METHODS

The General Pretreatment Regulations [40 CFR 403.12] require that all
analyses to determine compliance with categorical pretreatment standards be
performed in accordance with 40 CFR Part 136, "Guidelines Establishing Test
Procedures for the Analysis of Pollutants under the Clean Water Act" and
amendments, or with any other test procedures approved by EPA. Analytical
techniques for additional pollutants not contained in Part 136 must be
performed by using validated analytical methods approved by EPA [40 CFR
403.12(g)(4)]. Requiring everyone to use these EPA-approved test
methods ensures that analytical data are obtained in a uniform and consistent manner. These EPA-approved test methods should also be used to determine compliance with State standards and local limits. This requirement to use EPA-approved analytical methods should be specified in either the monitoring and reporting section or the standard conditions section of the permit as illustrated in Table 8-4 (page 8-20). The permit writer may want to specify the exact analytical method(s) to be used.

3.6 REPORTING REQUIREMENTS

Along with establishing self-monitoring requirements, the permit writer needs to specify reporting requirements in the permit. Such reporting is often overlooked by many Control Authorities because it is informally understood or agreed upon between the Control Authority and the industrial user. In cases where the Control Authority conducts all the monitoring or the Control Authority analyzes the industrial user's self-collected samples, the Control Authority has direct access to the analytical results and, thus, finds no need for a monitoring report to be submitted by the user. If the Control Authority has chosen this alternative, and is collecting all of the data that would ordinarily be required from the industrial user (e.g., flow data, production data, etc.) and at a frequency which would be expected of the user if it were self monitoring, then the Control Authority may waive the requirement that the industrial user report continuing compliance [40 CFR 403.12(g)].

The Federal reporting requirements contained in 40 CFR 403.12 consist of the following reports:

- Baseline monitoring report [40 CFR 403.12(b)]
- Reports on progress in meeting compliance schedules [40 CFR 403.12(c)]
- Report on final compliance (90-Day Report) [40 CFR 403.12(d)]
- Periodic reports on continued compliance [40 CFR 403.12(e)]
CHAPTER 8 MONITORING AND REPORTING REQUIREMENTS

- Notice of slug loading [40 CFR 403.12(f)]
- Reports required for noncategorical industries [40 CFR 403.12(h)]
- Notice by the industrial user of any violation within 24 hours of becoming aware of such violation and submission of results of repeat sampling within 30 days of said notice of violation [40 CFR 403.12(g)]
- Notice of anticipated substantial changes in the volume or character of pollutants discharged [40 CFR 403.12(j)].

These reporting requirements are described in more detail in Table 8-5 (page 8-22). The permit writer should place these reporting requirements, where appropriate, in the permit together with additional reporting he/she may require pursuant to his/her local authority. Some examples of actual permit reporting conditions are provided in Table 8-6 (page 8-24).

The Control Authority must also impose reporting requirements on noncategorical industrial users. The October 17, 1988, revisions to the General Pretreatment Regulations state that the Control Authority shall require appropriate reporting from those industrial users with discharges that are not subject to categorical pretreatment standards [40 CFR 403.12(h)].

When drafting an industrial user's reporting requirements, the permit writer should ensure that the permit contains the following information in sufficient descriptive detail:

- **What** types of information are to be contained in each report (e.g., analytical data, flow data, or production data)
- **When** each report is to be submitted to the Control Authority (specifying the dates and frequency for submission)
- **Who** is responsible for signing the reports (e.g., an authorized corporate official)
- **Where** the reports are to be sent, including the Control Authority's address and, if appropriate, the name of the person responsible for receipt of each report.
8.6.1. What Types of Information

Table 8-7 (page 8-27) provides the permit writer with the type of information recommended for the industrial user's periodic compliance reports. These reporting requirements are generally included in either the standard conditions section or the reporting requirements section. Again, the format and language for this provision and any other reporting requirements are left to the Control Authority's discretion.

Further, if an industrial user is subject to a compliance schedule contained in the permit, the permit writer should require the submission of periodic reports on the progress of compliance schedule activities. These reports should be submitted by the industrial user no later than 14 days after each milestone date and should describe the progress made, any delays experienced and the reasons for those delays, and steps taken to return to the schedule established.

Finally, the permit writer must impose any special reporting requirements on categorical industrial users required by the specific categorical pretreatment regulations. For example:

- Submission and implementation of a toxic organic management plan and semiannual certification of compliance with TTO standards (metal finishing, electroplating, and electrical and electronic components)
- Certification that chlorophenolic-containing biocides are not used (pulp, paper, and paperboard).

8.6.2. When Report is to be Submitted

The permit writer must require industrial users subject to categorical pretreatment standards to submit reports at a minimum of twice per year unless the Control Authority has elected to collect all of the information which would otherwise be supplied by the industrial user [40 CFR 403.12(e) and (g)]. More frequent reporting can be required. In fact, it is a good policy to
require that reports be submitted soon after the industrial user self-monitors. Whenever the industrial user samples in accordance with 40 CFR 136, or EPA approved analytical methods, it must notify the Control Authority within 24 hours of becoming aware of the violation and must resample within 30 days to ensure that the violation is not continuing [40 CFR 403.12(g)(2) and 53 FR 40562]. Frequency for submission of self-monitoring reports should be established by the Control Authority based on the need to evaluate an industrial user's compliance status and such factors as:

- Industrial user's size in terms of significance of its flow to the POTW's treatment plant
- Nature of the industrial user's discharge (i.e., the quantity and quality of the pollutants discharged)
- Industrial user's compliance history
- Industrial user's current self-monitoring frequency.

8.6.3. **Who Signs Reports**

The permit should contain a provision that requires reports to be signed. Signatories must be of sufficient stature (e.g., a corporate officer) so as to enable the Control Authority to hold the facility legally responsible for the representations made in the compliance reports. EPA has established signature requirements for reports by categorical industries [40 CFR 403.12(1)] as follows:

(a) By a responsible corporate officer, if the Industrial User submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:

(1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or;

(11) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980
dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(b) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship respectively.

(c) The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal, State, or local governmental entity, or their agents.

(d) By a duly authorized representative of the individual designated in paragraph (a), (b), or (c) of this section if:

(i) the authorization is made in writing by the individual described in paragraph (a), (b), or (c);

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or a well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(iii) the written authorization is submitted to the Control Authority.

(e) If an authorization under paragraph (d) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for the environmental matters for the company, a new authorization satisfying the requirements of paragraph (d) of this section must be submitted to the Control Authority prior to or together with any reports to be signed by an authorized representative.

8.6.4. Where Reports Are to be Sent

The reporting requirements section of the permit should also clearly identify where the industrial user should submit all required reports by specifying a Control Authority contact name and address. An example of the format and language to require the submission of monitoring reports is contained in Section I of Table 8-6 (page 8-26).
TABLE 8-1. SPECIAL MONITORING AND/OR REPORTING REQUIREMENTS FOR SPECIFIC CATEGORICAL PRETREATMENT STANDARDS

Aluminum Forming [40 CFR Part 467]:

Copper Forming [40 CFR Part 468]; and

Metal Holding and Casting [40 CFR Part 464]

- May as an alternative to monitoring for TTO meet the alternative oil and grease standard and must monitor for oil and grease.

Coil Coating [40 CFR Part 465]

- May be exempted from cyanide monitoring if:
  - The first cyanide sample collected during the calendar year is less than 0.07 mg/l of cyanide; and,
  - The owner or operator certifies in writing that no cyanide is used.

- For subcategory D (canmaking), may as an alternative to monitoring for TTO meet the alternative oil and grease standard and must monitor for oil and grease using analytical method outlined in 40 CFR 465.03(c).

Electrical and Electronic Components [40 CFR Part 469]; and

Electroplating [40 CFR Part 411]

- May in lieu of routine monitoring for TTO certify that toxic organics are not used in the facility or are controlled through a Toxic Organics Management Plan (TOMP). The TOMP must be submitted to the Control Authority and a certification statement must be submitted at least twice per year.

Leather Tanning [40 CFR Part 425]

- Must use the special analytical method specified for sulfide in 40 CFR 425.03 for determination of sulfide in alkaline wastewaters.

- May be exempt from sulfide standard if Control Authority submits a written certification to EPA that the sulfide does not interfere with the treatment works.
TABLE 8-1. SPECIAL MONITORING AND/OR REPORTING REQUIREMENTS FOR SPECIFIC CATEGORICAL PRETREATMENT STANDARDS
(Continued)

Metal Finishing [40 CFR Part 633]

- Must monitor for compliance with the cyanide limit after cyanide treatment and before dilution with other wastestreams. If monitoring the segregated cyanide wastestream cannot be done, the samples of the facility's final effluent may be taken, if the applicable cyanide limitations are adjusted based on the dilution ratio of the cyanide wastestream flow to the facility's effluent flow.

- May in lieu of routine monitoring for TTO certify that toxic organic are not used in the facility or are controlled through a Toxic Organics Management Plan (TOMP). The TOMP must be submitted to the Control Authority and a certification statement must be submitted at least twice per year.

Nonferrous Metals Manufacturing [40 CFR Part 421]

- For Subpart C (Secondary Aluminum Smelting), must monitor for compliance with the total phenolics limit for Delacquering Wet Air Pollution control wastewater at the source of the phenolic wastestream. At the source is defined as at or before the mixing of the phenolic wastestream with other process or nonprocess wastewaters. If monitoring of the segregated phenolic wastestream cannot be done, the samples of the facility's final effluent may be taken if the total phenolics limit is adjusted based on the dilution ratio of the phenolic wastestream flow to the facility's effluent flow.

- For Subpart C (Secondary Aluminum Smelting), must use 4-AAP analytical method for total phenolics.

Petroleum Refining [40 CFR Part 419]

- The petroleum refining categorical pretreatment standards "apply to the total refinery flow contribution to the POTW." Therefore, when monitoring for compliance with these standards, dilution wastestreams do not have to be accounted for if end-of-pipe samples are taken at a petroleum refining facility.

9/15/89
TABLE 8-1. SPECIAL MONITORING AND/OR REPORTING REQUIREMENTS FOR
SPECIFIC CATEGORICAL PRETREATMENT STANDARDS
(Continued)

Pharmaceutical Manufacturing [40 CFR Part 439]

- If all cyanide-containing wastestreams are passed through a cyanide
destruction unit, must monitor for compliance with total cyanide limit
after cyanide treatment and before dilution with other wastestreams.
If facility's final effluent discharge is monitored, the total cyanide
standard must be adjusted to account for the presence of the other
dilution wastestreams. If the facility does not treat the cyanide-
containing wastewaters, monitor for compliance at the facility's final
effluent discharge point and adjust the total cyanide standard based
on the dilution ratio of the cyanide-contaminated wastestream flow to
the total process wastewater flow. If a facility does not use or
generate cyanide, then no monitoring for compliance with total cyanide
is required provided that the Control Authority obtains a
certification from the facility that it is not using or generating
cyanide.

Porcelain Enameling [40 CFR Part 466]

- May be exempted from chromium monitoring if:
  - The first sample collected during the calendar year is less than
    0.08 mg/of chromium; and,
  - The owner or operator certifies in writing that chromium is not
    used.

Pulp, Paper, Paperboard and Builders' Paper and Board Mills [40 CFR Parts 430
and 431]

- May be exempt from pentachlorophenol and trichlorophenol limits if the
  facilities certify that they do not use chlorophenolic biocides.

- For Subpart M (Groundwood-Thermo-Mechanical), may be exempt from zinc
  limits if the facilities certify that they do not use zinc hydrosulfite.
### EXAMPLE OF SPECIFYING SAMPLING LOCATION BY NARRATIVE DESCRIPTION

Pipe 01A is defined as the sampling site from the industry's process wastewater discharge downstream from the existing pretreatment clarifier. Note that after the upgraded pretreatment system becomes operational, the sampling site will be the first manhole downstream from the sand filters.

### EXAMPLE OF MULTIPLE SAMPLING LOCATIONS SPECIFIED BY NUMBER DESIGNATION

#### IV. SELF-MONITORING REQUIREMENTS

**A. Sample Locations**

1. Discharge from the Chemistry-Fine Arts Building shall be sampled at the Manhole No. 50
2. Discharge from the Duane Physics Building shall be sampled at the Manhole No. 22
3. Discharge from the Research Lab No. 1 shall be sampled at the Manhole A.

### EXAMPLE OF SAMPLING LOCATION SPECIFIED BY DIAGRAM

**Part I Permit No. 001**

**Part I. Effluent Limitations and Monitoring Requirements**

**A. Description of Discharges**

**Pipe Description**

01 Discharge Pipe - Discharge of wastewater generated by all regulated metal finishing processes at the facility. Samples shall be collected at the point indicated on the attached diagram.

![Diagram of sampling location](attachment://diagram.png)

*Sampling Point"
**TABLE 8-3. RECOMMENDED INDUSTRIAL SELF-MONITORING FREQUENCIES DURING INITIAL COMPLIANCE PERIOD**

<table>
<thead>
<tr>
<th>Industrial Flow (gpd)</th>
<th>Conventional Pollutants, Inorganic Pollutants, Cyanide, and Phenol</th>
<th>GC or GC/MS Organics</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10,000</td>
<td>1/month</td>
<td>2/year</td>
</tr>
<tr>
<td>10,001-50,000</td>
<td>2/month</td>
<td>4/year</td>
</tr>
<tr>
<td>50,001-100,000</td>
<td>1/week</td>
<td>1/month</td>
</tr>
<tr>
<td>100,001-240,000</td>
<td>2/week</td>
<td>2/month</td>
</tr>
<tr>
<td>&gt;240,000</td>
<td>3/week</td>
<td>4/month</td>
</tr>
</tbody>
</table>

(Note: Industrial users subject to TTO standards in the Electrical and Electronic Components, Electroplating, and Metal Finishing categories may elect to implement a toxic organic management plan and periodic certification statements in lieu of performing TTO analyses. Industrial users subject to TTO standards in the Aluminum Forming, Copper Forming, Coil Coating (Canmaking), and Metal Molding and Casting categories may monitor for oil and grease as an alternative to TTO monitoring.)

Excerpt from: *EPA's Pretreatment Compliance Monitoring and Enforcement Guidance*
### TABLE 8-4. EXAMPLE OF SETTING MONITORING REQUIREMENTS IN PERMITS

**Permit No. 1**

**PART 2 - MONITORING AND REPORTING REQUIREMENTS**

**SECTION 1 - MONITORING REQUIREMENTS**

A. From the period beginning on the effective date of this permit until [Date], the permittee shall monitor outfall 1 for the following:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Frequency</th>
<th>Sample Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium (Total)</td>
<td>mg/l</td>
<td>1/week (1)</td>
<td>(5)</td>
</tr>
<tr>
<td>Copper (Total)</td>
<td>mg/l</td>
<td>3/week (1)</td>
<td>(5)</td>
</tr>
<tr>
<td>Lead (Total)</td>
<td>mg/l</td>
<td>1/6 mo. (1)</td>
<td>(5)</td>
</tr>
<tr>
<td>Nickel (Total)</td>
<td>mg/l</td>
<td>1/6 mo. (1)</td>
<td>(5)</td>
</tr>
<tr>
<td>Silver (Total)</td>
<td>mg/l</td>
<td>1/6 mo. (1)</td>
<td>(5)</td>
</tr>
<tr>
<td>Zinc (Total)</td>
<td>mg/l</td>
<td>1/mo. (2)</td>
<td>(5)</td>
</tr>
<tr>
<td>Cadmium (Total)</td>
<td>mg/l</td>
<td>1/mo. (3)</td>
<td>(5)</td>
</tr>
<tr>
<td>Cyanide (Total)</td>
<td>mg/l</td>
<td>1/6 mo. (4)</td>
<td>4 grab samples at equal intervals (but at least 1 hour apart) over period of discharge.</td>
</tr>
<tr>
<td>Flow</td>
<td>gal/day</td>
<td>Daily</td>
<td>Recorded from elapsed time meter on the sump pump prior to treatment system.</td>
</tr>
<tr>
<td>pH</td>
<td>Standard Units</td>
<td>Continuous</td>
<td>Recorded</td>
</tr>
<tr>
<td>Total Toxic Organics (TTO)</td>
<td>mg/l</td>
<td>1/6 mo.</td>
<td>(6)</td>
</tr>
</tbody>
</table>

**Notes:**

(1) The sample shall be taken on a day when these substances are likely to be present in their maximum concentration, including spent chromating tank and other periodic discharges to the sanitary sewer.

(2) The sample shall be taken on a day when zinc plating wastewaters are discharged to the sanitary sewer and zinc is expected to be present in its maximum concentration.
(3) The sample shall be taken on a day when cadmium plating wastewaters are discharged to the sanitary sewer and cadmium is expected to be present at its maximum concentration.

(4) Monitoring for cyanide must be conducted after the cyanide treatment unit, before dilution with other wastestreams, and when cyanide is expected to be present at its maximum concentration.

(5) Flow proportional composite sample over daily duration of discharge.

(6) Implementation of approved toxic organic management plan and submission of semiannual certification statement as specified by 40 CFR 413.03 shall be used in lieu of monitoring for TTO. The City reserves the right to require the permittee to monitor for TTO to determine compliance with the TTO standard at any time.

B. All samples shall be collected, preserved, and analyzed in accordance with the procedures established in 40 CFR Part 136 and amendments.
### Table 8-5. Industrial User Reporting Requirements

<table>
<thead>
<tr>
<th>Required Report and Citation</th>
<th>Report Due Date</th>
<th>Purpose of Report</th>
<th>Information Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Monitoring Report</td>
<td>Within 180 days of effective date of the regulation or an administrative decision on category determination.</td>
<td>To provide baseline information on industrial facility to Control Authority.</td>
<td>Identifying information about the facility (name, address, etc.).</td>
</tr>
<tr>
<td>40 CFR 403.12(b)(1-7)</td>
<td></td>
<td>To determine wastewater discharge sampling points.</td>
<td>List of all environmental control permits issued to the facility.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To determine compliance status with categorical pretreatment standards.</td>
<td>Description of operations.</td>
</tr>
<tr>
<td>Compliance Schedule Progress Reports</td>
<td>Within 14 days of each milestone date on the compliance schedule; at least every 9 months.</td>
<td>To track progress of the industrial facility through the duration of a compliance schedule.</td>
<td>Flow measurements of wastewater discharges to the POTW.</td>
</tr>
<tr>
<td>40 CFR 403.12(c)(1-3)</td>
<td></td>
<td></td>
<td>Nature and concentration of pollutants discharged to the POTW.</td>
</tr>
<tr>
<td>90-Day Compliance Report</td>
<td>Within 90 days of the date for final compliance with applicable categorical pretreatment standard; for new sources, the compliance report is due within 90 days following commencement of wastewater discharge to the POTW.</td>
<td>To notify Control Authority as to whether compliance with the applicable categorical pretreatment standards has been achieved.</td>
<td>Certification of compliance status with categorical pretreatment standards.</td>
</tr>
<tr>
<td>40 CFR 403.12(d)</td>
<td></td>
<td>If facility is noncompliant, to specify how compliance will be achieved.</td>
<td>Compliance schedule to attain compliance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actions taken to return to the approved schedule.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nature and concentration of all pollutants regulated by categorical pretreatment standards.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average and maximum daily flow for regulated manufacturing processes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Certification of validity of information provided.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REQUIRED REPORT AND CITATION</th>
<th>REPORT DUE DATE</th>
<th>PURPOSE OF REPORT</th>
<th>INFORMATION REQUIRED</th>
</tr>
</thead>
</table>
| Periodic Compliance Reports   | Every June and December after the final compliance date (or after commencement of a discharge for new sources) unless frequency is increased by the Control Authority. | To provide the Control Authority with current information on the discharge of pollutants to the POTW from categorical industries. | - Nature and concentration of all regulated pollutants  
- Average and maximum daily flows discharged to the POTW for reporting period  
- Where mass based units are used, a measure of the mass of pollutants discharged  
- For industries subject to production-based standards an actual average production rate for the reporting period  
- For industries subject to equivalent mass or concentration limits limits pursuant to 403.6(c) a reasonable measure of the long term production rate  
- Certification of validity of information provided  
- Additional information as required by the Control Authority. |
| Notice of Slug Loading        | Notification of POTW immediately after occurrence of slug load, or any other discharge that may cause problems to the POTW. | To alert the POTW to the potential hazards of the discharge. | - None specified in General Pretreatment Regulations; other federal, state, and local regulations may address reporting requirements. |
| Noncompliance Notification    | Notification of POTW within 24 hours of becoming aware of violation. | To alert the POTW of a known violation and potential problems which may occur. | - Nature and magnitude of the violation. Other information as determined by the POTW. |
| Periodic Compliance Reports for Noncategorical Users | To be determined by the POTW. | To provide the POTW with current information on the discharge of pollutants to the POTW from industrial users not regulated by categorical standards. | - Information as determined by the POTW. |
| Notification of Changed Discharge | In advance of any substantial changes in the volume or character of pollutants in the discharge. | To notify the POTW of anticipated changes in wastewater characteristics and flow which may affect the POTW. | - All anticipated changes which may affect the character or volume of the discharge. |
TABLE 8-6. EXAMPLE OF REPORTING REQUIREMENTS IN PERMIT

SECTION 2 - REPORTING REQUIREMENTS

A. Periodic Compliance Reports

1. In accordance with 40 CFR 403.12(e) and Section 99.15 of the Anytown General Ordinance, the permittee shall, after the effective date of the permit, submit to the Director of Public Works reports indicating the nature and concentration of pollutants in the effluent which are limited by the standards specified in Part 1 of the permit. The reports are due each June 30 and December 31. The report shall include a record of daily flow during each reporting period.

2. If the permittee monitors any pollutant more frequently than required by this permit, in accordance with 40 CFR Part 136 or other EPA approved methods, the results of such monitoring shall be submitted with the applicable periodic report.

3. Where the permittee is subject to production-based standards, the permittee must submit the appropriate production data as specified below:

   a) If permittee is subject to equivalent mass or concentration limits, the production data reported must be a reasonable measure of the permittee's long term production rate, or

   b) If permittee is subject to limits expressed only in terms of allowable pollutant discharge per unit of production, the production data reported must be the actual average production rate for the reporting period.

B. New or Changed Wastewater Reporting

1. The permittee shall notify the City 90 days prior to the introduction of any new wastestreams or pollutants, or any substantial increase or decrease in the volume (i.e., 20 percent or greater variance from the monthly average flow) or characteristics of existing wastestreams discharged to Outfall 1, described above, or any other outfall of the permittee.

C. Prevention of Spills and Accidental Discharges

1. The permittee shall provide to the City, under Section 99.29, plans showing facilities and operating procedures to provide protection against spills or accidental discharges of prohibited or regulated
TABLE 8-6.  EXAMPLE OF REPORTING REQUIREMENTS IN PERMIT

(Continued)

materials as established by Section 99 or this permit. Such plans shall include, but are not limited to:

a) Diking systems for containment
b) Alarm systems including test frequency of alarms
c) Employee education programs
d) Manhole sealing and repiping.

2. The permittee shall provide the spill prevention and accidental discharge control plans showing facilities and operating procedures to the City for review within 30 days of the effective date of the permit.

3. Plans shall be reviewed and approved by the City prior to construction of any facilities.

D. Accidental Discharge Reporting

1. The permittee shall notify the City immediately upon the occurrence of an accidental discharge, slug, spill, or any bypassing or overflow of untreated wastewater containing substances regulated by Section 99 or this permit, to the sanitary sewer from the permittee's facility. The notification shall be as specified in Section 99.02(7)(h).

E. Upset and Bypass Reporting

1. As specified in Section 99.04(8) and (9) of the ordinance, the permittee shall notify the City within 24 hours of the first awareness of an upset or unanticipated bypass experienced by the permittee of its treatment that places it in a temporary state of noncompliance with wastewater discharge limitations contained in this permit or other limitations specified in Section 99. The following information must be submitted:

a) A description of discharge and cause of noncompliance/bypass.

b) The period of noncompliance including exact dates and times or, if not corrected, the anticipated time the noncompliance/bypass is expected to continue. and

c) The steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance/bypass.
TABLE 8-6. EXAMPLE OF REPORTING REQUIREMENTS IN PERMIT
(Continued)

A written report shall be submitted within five days containing the above information.

2. The permittee shall submit prior notice at least 10 days in advance of a planned bypass that may result in violation of applicable pretreatment standards.

F. Compliance Schedule Progress Reports

1. Not later than 14 days following each compliance schedule event in Part 3, Sections A1 and A2, the permittee shall issue a progress report to the City indicating whether or not the increment of progress has been met, and if not, the reason for the delay and the date the permittee expects to comply with the increment of progress.

G. Noncompliance Report

1. General Noncompliance Report

If self-monitoring reveals violation of any discharge limitations specified herein, the permittee shall notify the City within 24 hours of becoming aware of the violation. The permittee shall also repeat the sampling and analysis and submit the results of the repeat analysis to the City within 30 days after becoming aware of the violation.

H. All reports required by this section shall be signed by a principal executive officer of the permittee of at least the level of vice president or other duly authorized representative.

I. All reports required by this permit shall be submitted to the City at the following address:

City of Anytown Public Works Department
Attention: Pretreatment Coordinator
123 Walnut Street
Anytown, USA 11111
TABLE 8-7. FUNDAMENTAL ELEMENTS OF AN INDUSTRIAL USER PERIODIC COMPLIANCE REPORT

- **Basic Information** - Name of industrial user, address, and reporting period.

- **Wastewater Pollutant Sampling and Analysis Data** - Pollutants monitored, units in which pollutant results are recorded, the date(s) samples were taken, and the concentration of pollutants
  - Where the industrial user must comply with monthly average standards, calculation of the achieved averages must be made and reported
  - Where mass limits are imposed, the report must include information on the mass/day discharges along with the supporting concentration and flow data.

- **Production Data** - For industrial users subject to equivalent mass or concentration limits calculated by the Control Authority, the report must contain a reasonable measure of the user's long-term production rate. For all other users subject to production based standards, the user must submit the actual average production rate for the reporting period.

- **Flow Data Reporting** - By regulation, industrial users subject to categorical pretreatment standards must submit average and daily maximum flow data. These should include flow data for each flow rate used in calculating the industrial user's limits (e.g., total flow and dilution flow).

- **Signature of Authorized Representative** - A signed statement by an authorized representative that certifies the report's validity.

- **Certification Statement** - "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
TABLE 8-7. FUNDAMENTAL ELEMENTS OF AN INDUSTRIAL USER PERIODIC
COMPLIANCE REPORT

(Continued)

If an industrial user has certified to a particular condition of a
 categorical standard, a statement should be included acknowledging the
 continuing applicability of this certification. For example, metal
 finishers and electroplaters would provide the following certification
 statement to conform with alternatives for monitoring Total Toxic Organics
 (TTO) and its approved toxic organic management plan:

Based on my inquiry of the person or persons directly responsible for
 managing compliance with the pretreatment standard for Total Toxic Organics
 (TTO), I certify that, to the best of my knowledge and belief, no dumping
 of concentrated toxic organics into the wastewater has occurred since
 filing of the last semiannual compliance report. I further certify that
 this facility is implementing the toxic organic management plan submitted
 to the Control Authority.

- **Other Data**

  - Identification of all occurrences of noncompliance
  - Explanation of violations and corrective action(s) taken
  - Type of sample, sampling time and location, and person taking sample
    - Date analysis was performed, analytical methods used, and person
      performing analysis
  - Industrial user limits
  - Telephone number of contact person
  - Identification of any process or treatment changes.
CHAPTER 9

STANDARD CONDITIONS

The standard conditions in an industrial user's permit should set forth the substantive administrative and procedural requirements that are applicable to all industrial users of the POTW's collection and treatment system. Standard conditions are an essential element of every permit and, considering that they need only be developed once (and thereafter should be repeated verbatim in every permit) should be carefully crafted, preferably with the assistance of an attorney. Standard conditions often reiterate many provisions contained in the sewer use ordinance. Such reiteration is the best way of notifying the permittee of his responsibilities and the procedural and administrative aspects of the permit program.

Standard conditions outline the general duties and responsibilities of each industrial user. The order, language, and format of the standard conditions in permits are left to the Control Authority's discretion, as illustrated by the examples of different languages in Table 9-1 (page 9-5). The permit writer should adhere to the general rule of using clear and specific language to ensure an adequate understanding of the provisions by all parties and to avoid alternative interpretations that may hinder enforceability. The Control Authority should have its attorney review these conditions before they are used in permits to ensure there is adequate authority in the sewer use ordinance for each provision, and that they are understandable and free of legal loopholes.

Depending on the amount of detail provided in the Control Authority's sewer use ordinance, standard conditions for industrial user permits may be taken verbatim from the Control Authority's sewer use ordinance, incorporated into permits through a specific reference to the ordinance section(s) which set forth these standard condition provisions, or derived for use in permits (and specifically set forth therein) from broad grants of authority in the
CHAPTER 9

STANDARD CONDITIONS

sewer use ordinance. The Control Authority should verify the enforceability of incorporation by reference prior to its use.

Some of the standard conditions ordinarily contained in an industrial user's permit are briefly highlighted below. Illustrations of example language used to specify such conditions are found in Appendix G.

- Definitions of terms used in the permit that may be considered ambiguous or that need clarification. Terms that may need to be defined include: composite and grab samples; instantaneous measurement; 4-day average, monthly average, or 30-day average; and effluent data and upset.

- The industrial user's duty to comply with all provisions of the permit and the local sewer use ordinance, including the duty to comply with the general discharge prohibitions. (In some cases, the general discharge prohibitions may be included verbatim as a separate standard condition.)

- The industrial user's duty to comply with all applicable Federal pretreatment standards including those which become effective during the term of the permit and that compliance with the permit is not a defense for violation of applicable Federal pretreatment standards.

- The industrial user's duty to mitigate or to take all reasonable measures to lessen the duration and severity of any permit violation.

- The POTW's authority to modify or revise an industrial user's permit at any time during the permit's effective life should certain conditions (such as new information, new Federal standards, or evidence of fraud in the permit application) arise.

- Notice that the permit can be revoked should violations of permit conditions or local ordinance be identified or the falsification or misrepresentation of information by the industrial user be determined.

- Nontransferability of the permit in the event of a change of owner/operator. The permit is issued to a specific entity and cannot be transferred by the industrial user.

- Right of appeal provided to the industrial user within a limited time period after permit issuance after which the right to challenge or appeal administratively or in a court of law is deemed waived.
- **A severability clause** that allows the remaining parts of a permit to remain in force should any portion of the permit be found invalid and subsequently be suspended or revoked by a court of law.

- The industrial user's responsibility or **duty to reapply** for a new permit prior to expiration of the current permit.

- Provisions requiring the installation and proper **operation and maintenance of wastewater pretreatment facilities** by the industrial user, including proper calibration and maintenance of all sampling equipment.

- Provisions requiring the **proper disposal of pretreatment or other sludges and any hazardous wastes** (e.g., spent chemicals) used or generated at the industrial user's facility so as to prevent the discharge of such materials to the POTW.

- A condition that **prohibits** the dilution of industrial user wastewaters as a partial or complete substitute for treatment of the wastewaters prior to discharge to the POTW.

- **Monitoring requirements** (in addition to those specified in other portions of the permit) including:
  - An outline of specific records to be maintained during sampling events (i.e., name of sampler, date, time and location of sampling, name of laboratory analyst, date and time of analyses, and analytical method used)
  - The requirement to follow EPA-approved sampling methods in 40 CFR Part 136, or other EPA-approved methods
  - The requirement to implement QA/QC procedures such as proper installation and maintenance of flow monitoring and sampling equipment, periodic calibration of sampling and monitoring devices, and laboratory QA/QC procedures.
  - The requirement to resample within 30 days of an identified effluent violation

- **Reporting requirements** (in addition to those specified in other portions of the permit), such as:
  - The name and address of Control Authority personnel to whom applicable compliance monitoring reports are to be submitted
  - The requirement to notify the Control Authority of **spills, slug loadings, or accidental discharges** of concern
- The requirement to notify the Control Authority of any planned changes in industrial processes, production rates, or in the volume or characteristics of wastewaters discharged to the Control Authority.

- Requirement that the Control Authority must be notified within 24 hours of an identified effluent violation.

- A condition that requires the industrial user to maintain or retain records related to industrial operations and wastewater discharges for a minimum of three years.

- Specific signatory requirements for all reports submitted to the Control Authority. In all cases, reports must be signed in accordance with 40 CFR 403.12(1).

- Provisions that address public access to industrial user records and the maintenance of confidential information. It should be made clear that at no time can wastewater effluent data be claimed or held as confidential information.

- The right of entry or right of access of Control Authority personnel or its representatives to the industrial user’s property to perform sampling and inspection activities and to examine and copy industrial user records.

- Legal remedies or enforcement measures including penalties available to the Control Authority to address violations of permit conditions.

Neither the discussion above nor the list provided in Appendix C exhausts all potential standard conditions that could be included in an industrial user’s permit. However, both lists represent some of the more important types of conditions to be placed in the permit.
TABLE 9-1. EXAMPLES OF DIFFERENT LANGUAGE USED TO INCORPORATE STANDARD CONDITIONS INTO INDUSTRIAL USER PERMITS

PERMIT MODIFICATION OR REVISION

Example No. 1: The City reserves the right to amend this permit at any time, in accordance with Chapter 13.16 Code of General Ordinances, to provide for more stringent limitations or requirements.

Example No. 2: Terms and conditions of this permit may be modified by the City if revision is necessary to meet City NPDES discharge permit requirements, if substantial changes of the permittee's operations or wastewater occur, if applicable Federal pretreatment standards are amended, or if the Superintendent of the City's treatment works determines that there is other good cause. To the extent otherwise permissible by law, changes or new conditions in the permit shall include a reasonable schedule for compliance.

Example No. 3: The terms and conditions of this permit may be subject to modification by the City at any time as identified in Section 29.03(5) of the City's sewer use ordinance. Any new conditions in the permit shall include a reasonable time schedule for compliance unless the modification incorporates a new requirement that includes an alternative compliance schedule. The permit may also be modified to incorporate special conditions resulting from the issuance of a special order.

DILUTION OR EXCESSIVE DISCHARGE

Example No. 1: No industry shall increase the use of potable or process water in any way or mix separate wastestreams for the purpose of diluting a discharge as a partial or complete substitute for adequate treatment to achieve compliance with any applicable Federal pretreatment standards, limits in Section 29.02 of the City's Ordinance, or any other limitations set forth in this permit.

Example No. 2: The permittee shall not increase the use of process water or, in any way, attempt to dilute a discharge to achieve compliance with the limitations contained in this permit.

PROPER DISPOSAL OF PRETREATMENT SLUDGES AND HAZARDOUS WASTES

Example No. 1: The disposal of sludges generated within wastewater pretreatment systems shall be in accordance with applicable State and Federal regulations, specifically Section 405 of the Clean Water Act and Subtitle C and D of the Resource Conservation and Recovery Act and Section 319-333 of the State Code.

Example No. 2: Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent any such materials from entering the Authority's sewerage system.
CHAPTER 10

SPECIAL CONDITIONS

Special conditions are tailored to the particular permittee. They typically address known or suspected problems (e.g., spills) by requiring the industrial user to undertake a specific activity in order to reduce the quantity of pollutants currently discharged or to prevent the discharge of new or additional pollutants. These special requirements are typically described in a separate section of the permit. Examples of a few special conditions include compliance schedules, development and implementation of industrial user management practices, and additional monitoring requirements.

Special conditions are based on the permit writer’s professional judgment and can take many forms. Because they are often based on generally worded grants of authority in the local ordinance, and involve some exercise of judgment on the part of the permit writer, special conditions are more likely to be challenged. Therefore, the basis for them must be well documented and their use should be based on the fundamental principle of "reasonableness."

10.1 COMPLIANCE SCHEDULES

A compliance schedule is a means of establishing milestones and deadlines for carrying out specific actions required of an industrial user. For example, a compliance schedule may be used to delineate the phases for construction or installation of wastewater pollution control (pretreatment) technology or for the submission of a spill plan. Each compliance schedule typically includes a brief outline of the activities required and specific target dates to meet major steps in the schedule. Table 10-1 (page 10-5) provides an example of a compliance schedule.

A compliance schedule is often negotiated with the industrial user to ensure that the adopted schedule is achievable. The permit writer cannot establish a schedule for compliance with a Federal categorical pretreatment
standard that extends beyond the compliance date indicated by the applicable Federal categorical pretreatment regulation [40 CFR 403.12(b)(7)]. In addition, a permit compliance schedule does not relieve an industrial user of its obligations to comply with applicable pretreatment standards and requirements including the prohibitions against pass through and interference. Once any Federally-established compliance deadline for a categorical pretreatment standard has passed, the proper action for the Control Authority is to initiate an enforcement proceeding which may, in appropriate instances, involve issuance of an administrative enforcement order with a compliance schedule. Of course, the permit writer may develop more stringent compliance schedules aimed at achieving compliance with Federal standards prior to Federal deadlines. Compliance schedules should contain milestone dates which reflect the shortest reasonable time in which compliance can be achieved. Finally, the industrial user should be required to submit a progress report to the Control Authority no later than 14 days following each milestone date in the compliance schedule.

When establishing a compliance schedule for an industrial user's permit, the permit writer should take into consideration the complexity of the improvements or actions specified as well as any seasonal factors or legal requirements that will affect the industrial user's efforts to comply with the conditions outlined. For example, a compliance schedule requiring ground breaking in January in areas where winter conditions will prevent such actions from taking place is not reasonable.

10.2 INDUSTRIAL USER MANAGEMENT PRACTICES

An industrial user permit can also require the development and implementation of industrial user management practices to control or abate discharges of pollutants. The industrial user management practices (e.g., slug loading control plans, accidental discharge prevention plans, or toxic organic management plans) are designed to prevent or to mitigate the release of pollutants in significant amounts to the sewer system. Generally, these are
effective and inexpensive ways of addressing existing or potential problems. They should be used to complement effluent limits rather than substitute for them. The most likely candidates for management practices are process areas, storage areas, and loading docks.

There are at least two ways to impose industrial user management practices in permits: 1) by requiring the industrial user to develop and implement an industrial user management practices procedures manual (either a comprehensive plan or a plan addressing specific problems); or 2) by imposing site or pollutant-specific requirements (e.g., the removal or sealing of floor drains or the containment of stored chemicals). When incorporating these special conditions in the permit, the permit writer should use language which clearly identifies what specific activities must occur and when these activities must occur or be completed. Examples are provided in Table 10-2 (page 10-6). The industrial user management practices procedures manual should be reviewed when submitted, but it is not generally necessary or advisable for the Control Authority to approve the plan. Compliance with the plan cannot relieve the industrial user of its liability should its discharge cause or contribute to pass through or interference. Approval of the plan may be misconstrued as Control Authority sanction even though the plan when implemented may not be effective in controlling slug loads. Additional information on industrial user management practices is contained in Appendix H. Further information can be found in the following EPA manuals:

- Guidance Manual for Control of Slug Loadings to POTWs
- Guidance Manual for Implementing Total Toxic Organics (TTO) Pretreatment Standards
- NPDES Best Management Practices Guidance Document
- Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program
10.3 SPECIAL MONITORING REQUIREMENTS

The Control Authority may often incorporate special monitoring requirements into industrial user permits. Additional monitoring may be used to confirm the presence of suspected pollutants of concern (e.g., pollutants not regulated in an industrial user's permit). For example, the Control Authority may impose biomonitoring or other toxicity testing to determine the effluent's toxicity. This additional monitoring may then be used to evaluate whether the permit should be revised to include additional effluent limits, to require installation of pretreatment technology, or to reject the wastewater entirely. Examples of special monitoring conditions appear in Table 10-3 (page 10-8).

The Control Authority may, as illustrated in Table 10-3 (page 10-8), require industrial users to perform additional monitoring of pollutants that are regulated in their permits in response to noncompliance. Thus, the special condition may trigger an increase in the user's self-monitoring frequency. The increased monitoring allows the Control Authority to detect patterns of continuing noncompliance and distinguish isolated violations from chronic noncompliance. Naturally, the increased monitoring also draws the industrial user's attention to the problem through the additional costs incurred. It thereby may act as a deterrent to future incidents of noncompliance.
TABLE 10-1. EXAMPLE OF INCORPORATING A COMPLIANCE SCHEDULE IN SPECIAL CONDITION SECTION OF PERMIT

Permit No. 001
Page 3-1

PART 3 - PRETREATMENT AND MONITORING FACILITIES COMPLIANCE SCHEDULE

A. In order to comply with the effluent limitations identified in Part 1, Section 2 C. and Section 3 A. 2 in a reasonable time period, the permittee shall provide necessary wastewater pretreatment as required by Sections 13.16.170 and 13.16.180, Code of General Ordinances, in accordance with the following schedule:

<table>
<thead>
<tr>
<th>EVENT</th>
<th>BY NO LATER THAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) New wastewater pretreatment plant design completed, clarifiers ordered, and building foundation begun.</td>
<td>December 30, 1984</td>
</tr>
<tr>
<td>2) Submit to the City a plant management plan for control of solvents and toxic organics.</td>
<td>April 19, 1985</td>
</tr>
<tr>
<td>3) Pretreatment plant building essentially complete, field-erected tank external construction in place, and piping installation begun.</td>
<td>June 30, 1985</td>
</tr>
<tr>
<td>4) Complete installation of new sampling devices and Palmer Bowlus flume.</td>
<td>September 15, 1985</td>
</tr>
<tr>
<td>5) Obtain full pretreatment plant operational status and achieve full compliance.</td>
<td>February 15, 1986</td>
</tr>
</tbody>
</table>

No later than 14 days following each date in the above schedule, the permittee shall submit to the City a progress report including, at 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 the increment of progress, the reasons for delay, and the steps being taken to return the project to the schedule established in this permit.
EXAMPLE OF REQUIREMENT TO DEVELOP AND IMPLEMENT SLUG LOADING CONTROL PLAN

V. OTHER REQUIREMENTS

1. The permittee shall develop a slug loading control plan designed to prevent slug loading by the permittee. The plan shall include descriptions of all chemical storage and transfer areas and all chemical process tanks.

The descriptions shall include a list of chemicals that are handled/stored (and where more than one chemical is in the storage area a description of chemical compatibility), the capacity of each tank and any secondary containment, description of chemical transfer procedures, and the proximity of each transfer or storage area to sewers (including drainage patterns). A spill contingency plan must be developed for the facility and include:

(1) Procedures for routine inspection of potential spill sources

(2) Procedures for notifying the City Wastewater Department of any spill

(3) Abatement and containment plans for possible spills based on areas of chemical use and transfer, containment structures, and known drainage patterns

(4) A list of equipment and materials available for spill response activities and the location of each

(5) A listing of commercial (or other) suppliers of spill response equipment and materials (indicating the types of equipment available) and their telephone numbers

(6) A list of the facility personnel (by name and title) that have an identified role to play in the implementation of a spill response plan, indicating the responsibilities and authorities of each. In particular, the following details should be identified: the primary and secondary spill response coordinator (day/evening shifts) and the persons having access and authority to commit existing and additional resources to a spill response effort.

The plan containing all of the above prescribed elements must be submitted to the City Wastewater Department by April 10, 1987.
2. The permittee shall achieve full implementation of the slug loading control plan within four months of the effective date of this permit.

3. The permittee shall notify the City of any proposed changes to the plan by submitting a proposed revised plan to the City and informing the City (in advance) of the date upon which the proposed revised plan will take effect.

EXAMPLE OF INCORPORATING SLUG LOADING CONTROLS INTO SPECIAL CONDITION SECTION OF PERMIT

Part D. SPECIAL REQUIREMENTS

The Permittee Must:

1. Provide PVC liners in Concrete Wastewater Sumps by 4-01-86.
2. Install Concrete Tank with PVC Liner for Excess Storage Capacity by 7-30-86.
3. Connect all Floor Drains to the North Sump by 10-01-86.

The permittee shall provide immediate written notice of any event that would prevent any of the dates specified in this section from being met. The permittee shall also provide written confirmation to the City Wastewater Department when the above activities are completed.
EXAMPLE OF INCREASED MONITORING DUE TO VIOLATIONS

Increased Sampling in Response to Noncomplying Discharge

1. Frequency of sampling and analysis shall be increased according to the schedule listed below whenever a discharge in violation of City/EPA limits is detected. Only those parameters that are in noncompliance need to be analyzed during the resampling period.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sample Type</th>
<th>Additional No. of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals</td>
<td>One-day composite</td>
<td>One per day for two days</td>
</tr>
<tr>
<td>pH</td>
<td>Grab</td>
<td>Two per day for two days</td>
</tr>
</tbody>
</table>

2. Resampling of the noncomplying parameter shall commence within 48 hours or on the first available weekday representative of normal metal finishing/plating operations after a violation is discovered.

3. The results of this sampling and analysis shall be reported to the City within 15 days of the sampling.

EXAMPLE OF SPECIAL MONITORING TO DETERMINE METAL CONCENTRATION AND TOXICITY OF DISCHARGE

D. Intensive Sampling Period

1. Sampling and analysis requirements

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>SAMPLE TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromium</td>
<td>24-hour flow-proportional composite</td>
</tr>
<tr>
<td>Copper</td>
<td>24-hour flow-proportional composite</td>
</tr>
<tr>
<td>Lead</td>
<td>24-hour flow-proportional composite</td>
</tr>
<tr>
<td>Mercury</td>
<td>24-hour flow-proportional composite</td>
</tr>
<tr>
<td>Nickel</td>
<td>24-hour flow-proportional composite</td>
</tr>
<tr>
<td>Zinc</td>
<td>24-hour flow-proportional composite</td>
</tr>
<tr>
<td>Toxicity</td>
<td>24-hour flow-proportional composite</td>
</tr>
</tbody>
</table>
2. Intensive sampling frequency

A 24-hour flow proportional composite sample shall be taken on each day of a 5 consecutive day sampling period (Monday-Friday) during the middle 10 weeks of either Spring or Fall semester for each of the sample sites one through eight listed in permit section IV.A.

3. Intensive sampling period

Time allowed for intensive sampling of sites one through eight shall extend through Spring semester 1986.

E. Miscellaneous Self-Monitoring Requirements

1. Sample representativeness

All sampling shall be accomplished so as to obtain samples representative of daily wastewater discharge and shall take place on days representative of normal university operations. For purposes of this permit, university holidays, vacations, and the week preceding the final examination period shall not be considered representative of normal university operations.

2. Toxicity analysis

Until toxicity test instrumentation is purchased, testing shall consist of measuring oxygen depletion over a six-hour period using a dissolved oxygen meter and a one-liter bottle or BOD bottle. The test shall compare oxygen depletion rate of a standard wastewater bacteria culture versus wastewater bacteria culture dosed with sample in question.

Toxicity limits may be developed and made part of this permit if deemed necessary to prevent interference or inhibition of City biological wastewater treatment processes.
### EXAMPLE OF SPECIAL TOXICITY MONITORING REQUIREMENT

**Industrial Discharge Permit**

Page 9

#### III. Self-Monitoring Requirements

**A. Sampling and Analysis for Lagoon Discharge Criteria**

<table>
<thead>
<tr>
<th>Parameter</th>
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<td>Composite</td>
<td>Daily</td>
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<tr>
<td>pH</td>
<td>Lagoon effluent</td>
<td>Grab</td>
<td>Daily</td>
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</table>

**B. Electrolytic Respirometer Methodology**

The Electrolytic Respirometer (ER) testing procedure as described in Attachment A will be used. The accepted standard shall be O₂ uptake of wastewater sample greater than O₂ uptake of control sample. Such procedure may be reasonably modified by mutual agreement if the City demonstrates that a more suitable testing procedure is available.

1. Initial ER testing should be set up by midnight with a normal run, including purge, lasting until 7:00 a.m.

2. When obvious ER failure is noticed, the test should be halted and a new one started immediately.

3. If the second ER meets the accepted standard, lagoon discharge can begin. The test should be run to completion and the City notified of results within six hours.

4. Though discharge can begin after the initial ER test, discharge can be stopped by the City at test completion or sooner, if ER has failed.
### TABLE 10-3. EXAMPLES OF INCORPORATING SPECIAL MONITORING REQUIREMENTS IN PERMITS (Continued)

5. In the event of ER failure, the City shall be notified. When City notification is necessary, please contact any of the following people:

- Industrial Pretreatment Coordinator
- Superintendent
- Lead Operator on Duty
CHAPTER 11
DOCUMENTATION OF PERMIT DECISIONS

Once the permit has been drafted, it is very important to create a permanent record of the procedures followed and the basis for the decisions made during the permitting process. Although such documentation may initially seem an unnecessary and time-consuming task, it will inevitably play a critical role in any permit challenge and in the long run it can save the permit writer a great deal of time and effort. Some of the principal reasons for documenting permit decisions are:

- To document, in the event of permit challenge, that permit conditions were developed in a reasonable, non-arbitrary manner and in accordance with proper procedures
- To streamline future permitting issuances through the creation of a complete file containing all information used in developing previous permits which only need to be revised if circumstances change
- To create a permanent record of permit development
  - In case personnel changes occur
  - For "institutional memory"
  - As an explanation of permit conditions to other personnel within the pretreatment staff or in the event that the Control Authority and the permittee disagree on the meaning of particular permit conditions
- To explain permit conditions to the industrial user and to the public
- To facilitate a determination of the need for permit modification if changes have occurred at the permittee's facility which may arguably warrant modifying the permit
- To refresh the permit writer's memory at reissuance time about how the permit was originally developed, particularly if the permit duration was four or five years
- To satisfy possible Approval Authority requirements for documentation of permitting rationale.
11.1 FACT SHEET

The bases for decisions made during the permitting process are generally summarized in a document commonly referred to as the "industry fact sheet." The fact sheet briefly sets forth the significant factual, legal, methodological, and policy questions considered in preparing the permit. The fact sheet should be kept attached to a copy of the permit in the Control Authority's files. The components of a fact sheet are presented in Table 11-1 (page 11-3), and an example is contained in Appendix I.

11.2 PERMIT RECORD

It is particularly important for the permit writer to document all verbal discussions with the public and/or permittee and to keep copies of all letters exchanged. For example, an industrial user may not be able to measure the flow of wastewater discharged to the POTW at the time of permit application or may be measuring the flow after it is combined with nonprocess wastestreams. The permit writer and the user may agree upon mutually acceptable wastewater flows to be used in developing the effluent limits. Such discussion and decision should be documented. The Control Authority should establish a file where all records pertaining to the development and issuance of the permit are kept throughout the development of the permit. Relevant documents to include in this file are:

- Permit application form
- Draft permit and fact sheet
- All correspondence relating to the development of the permit
- Copies of any telephone conversations with interested parties concerning the permit
- Record of any public hearing or meetings
- Copies of all comments received
- Copies of all replies or responses to comments received.
CHAPTER 11  DOCUMENTATION OF PERMIT DECISIONS

TABLE 11-1. COMPONENTS OF A PERMIT FACT SHEET

1. Brief description of industrial user, including:
   - Name, address, and location of the facility
   - Number of connections which the facility has to the sewer system, specifying the one(s) relevant to the fact sheet
   - Type of operations in which the facility is engaged (e.g., manufacture of battery terminals)
   - Brief description of the plant processes or other sources of generating wastewater
   - Categorical determination (if applicable).

2. Type and quantity of the discharge:
   - Rate or frequency of the discharge; the average and maximum daily flow
   - Daily maximum and monthly average discharge of any pollutants present in significant quantities or subject to limitations or prohibition.

3. Basis for the permit limits, including:
   - Permit application documents
   - Analytical data for pollutants provided in both a complete and summary form so that they can be easily reviewed and verified
   - Copies of or citations to Federal, State, and local regulations
   - Copies of literature information where used to develop the permit limits (e.g., pages from the development documents, Treatability Manual, etc.)
   - Plant layouts and process and wastewater flow diagrams.

4. Detailed discussion of any special conditions in the permit and the rationale for pollutant selection and limits development.

5. Calculations showing the actual numbers used to derive each limit, including:
   - Combined wastestream formula or flow weighted average calculations
   - Equivalent mass or concentration-based limits calculations
   - Local limits allocation basis.
PART III

PERMITTING WASTE HAULERS AND OVERVIEW OF REQUIREMENTS REGARDING POTW RECEIPT OF HAZARDOUS WASTES
CHAPTER 12

PERMITTING WASTE HAULERS

Federal regulations [40 CFR 403.5(a)(1)] prohibit nondomestic discharges of pollutants to a POTW, regardless of their mode of entry, that would cause pass through or interference. Waste hauler discharges to a POTW, fall within the scope of the General Pretreatment Regulations [40 CFR 403]. As a result, a Control Authority must establish the legal authority and procedures necessary to ensure that waste hauler discharges comply with Federal pretreatment standards contained in 40 CFR 403.5(a), (b), and (c) [40 CFR 403.8(f)(1) and (2)]. These prohibitions apply not only to toxic pollutants, but also to excessive concentrations of conventional and non-conventional pollutants. In addition, if the load has originated from a categorical industry, it remains subject to EPA’s categorical pretreatment standards (i.e., it cannot be introduced into the POTW unless it has been treated to the level prescribed by the applicable categorical standards). If the hauled waste received by a POTW is a "hazardous waste" as defined under the Federal Resource Conservation and Recovery Act (RCRA), the POTW must comply with additional Federal requirements. For a complete discussion of the legal, administrative, and technical methods of controlling hauled hazardous wastes, see the Guidance Manual for the Identification of Hazardous Wastes Delivered to Publicly Owned Treatment Works by Truck, Rail, or Dedicated Pipeline.

A permit system is the most direct and efficient method of regulating waste haulers that discharge to a POTW. Implementing a permit system provides the opportunity to monitor and regulate haulers based on the treatment works’ operating conditions. A sample waste hauler’s permit is presented in Appendix J. Figure 12-1 (page 12-7) presents an overview of procedures involved in implementing a waste hauler permit system.
CHAPTER 12 PERMITTING WASTE HAULERS

12.1 LEGAL AUTHORITY

Generally, the legal authorities required for an effective waste hauler permitting program are similar to those for regulating sources connected to the POTW (see Chapter 3, Section 3.1). However, there are certain additional provisions which should be included in the Control Authority’s sewer use ordinance. In particular the ordinance should contain the following provisions:

- Requirement that the hauled discharge must meet all applicable Federal, State, and local pretreatment standards and requirements including categorical standards developed for the waste generator’s industrial category. This authority should also be expanded to allow the Control Authority to permit the original source of the hauled wastes.

- The Control Authority may require septic and/or industrial waste haulers to obtain a permit.

- Waste haulers may only discharge loads at locations specifically designated by the Control Authority.

- The Control Authority may collect samples of each hauled load to ensure compliance with applicable pretreatment standards.

- No load may be discharged without prior consent of the Control Authority.

- The Control Authority may require the hauler to provide a waste analysis of any load prior to discharge.

- Waste haulers must use a manifest system.

12.2 PERMIT APPLICATION PROCEDURES

The first step in implementing a waste hauler permit system is to identify all waste haulers, including septage haulers, that discharge waste materials into the POTW. Waste haulers can be identified by using municipal or county business license records or by consulting local telephone directories. Waste haulers within the immediate and surrounding service area should be considered.
potential dischargers to the POTW system and should be notified of the permit system requirements.

Each waste hauler should be required to complete a permit application. The permit application form should be designed to provide the Control Authority with all information necessary to control waste haulers.

12.3 CONDITIONS FOR WASTE HAULER PERMITS

To protect a POTW from possible hazardous or problem-causing discharges from waste haulers, certain conditions should be developed and applied to waste haulers as part of the permitting system. The following is a list of conditions that a Control Authority may wish to include in discharge permits issued to waste haulers:

- **Right of Refusal to Accept Waste** - The Control Authority should have the right to refuse any hauled waste load.

- **Nondomestic Loads** - The waste hauler should be limited to discharging only domestic wastes if the POTW is not capable of treating any nondomestic wastes. However, if a POTW can treat nondomestic wastes in general or only certain nondomestic wastes, then provisions for these discharges should be established. To account for the nondomestic wastes it receives from waste haulers, the POTW should request a list of customers from each hauler and the type(s) of waste(s) hauled from each customer.

- **Prohibited Discharges** - Waste haulers must always be prohibited from discharging wastes which would violate any prohibited discharge standards of the General Pretreatment Regulations [40 CFR 403.5(b)] or any local prohibited discharges. The Control Authority may wish to sample and analyze the hauled wastes or require that the hauler perform such sampling and analysis to verify that such standards would not be violated if the waste is discharged to the POTW. If the POTW does not have permit-by-rule status (see Chapter 13) or is not otherwise equipped to treat RCRA hazardous wastes, the permit should prohibit the introduction of hazardous wastes to the POTW.

- **Federal Categorical Pretreatment Standards** - If waste haulers are allowed to discharge nondomestic wastes to the POTW, then it must be determined whether the sources of these wastes are regulated by National categorical pretreatment standards. To determine if wastes
collected by haulers are regulated by National categorical pretreatment standards, the Control Authority should obtain information from both the waste hauler and the facility from which the wastes were collected. Questions that might be asked by the Control Authority to determine applicability of any National categorical pretreatment standard to the source(s) might include the following:

- Were the wastes generated from regulated processes subject to categorical pretreatment standards?
- What types of pollutants are known or suspected to be present in the hauled wastes? At what estimated or known levels?
- If the hauled waste load is subject to categorical pretreatment standards, is it in compliance with the standards?
- Has the waste hauler collected wastes from more than one location or source such that domestic and industrial or different types of industrial wastes have been mixed within the load?
- Is the waste hazardous under the Resource Conservation and Recovery Act (RCRA)? If so, is it a listed or a characteristic waste?

- **Local Limits** - The permit should require compliance with any local limits established by the Control Authority.
- **Number of Loads** - If a POTW is susceptible to hydraulic or organic overloading, it may wish to consider placing a limit on the maximum number of loads that a waste hauler can discharge over a specified period of time.
- **Designated Disposal Site** - The permit should clearly designate the disposal site. Three primary factors should be considered in the establishment of disposal sites for waste haulers: potential plant impacts, monitoring ease, and accessibility. Ideally, there should be one disposal site located on the treatment plant grounds so that POTW personnel can monitor discharges at all times for recording purposes and to ensure proper handling of waste materials. The discharge site should be located in an area that will not interfere with normal treatment plant traffic. If a treatment plant is prone to upsets from slug loads, the acceptance of waste hauler discharges directly at the head of the plant without equalization facilities is not desirable. The disposal site should be monitored at all times, if possible, to prevent illegal discharges. For the same reason, controlled access is also desirable. If the site cannot be monitored at all times, it should be readily accessible to POTW personnel for periodic spot checks.
• **Time Limitations** - Specific days and/or hours that waste haulers are allowed to discharge should be stated in the permit conditions. The following are considerations that Control Authorities should keep in mind when developing discharge time limitations:

  - Days and hours per day that POTW personnel are available at the disposal site
  - Time periods during each day that peak and low flows occur within the collection system and at the treatment plant.

• **Waste Tracking** - The permit should contain a condition that requires the waste hauler to provide documentation on the nature and origin of the wastes being discharged. A manifest system or waste hauler log, similar to those used for hazardous waste, is the most efficient means to record this information. Examples of both are provided in the Guidance Manual for the Identification of Hazardous Waste Delivered to Publicly Owned Treatment Works by Truck, Rail, or Dedicated Pipeline. This type of system would require a waste hauler to complete an entry on the waste manifest form for each load he receives. The manifest form should include information such as:

  - Name and address of each customer
  - Types of wastes collected
  - Approximate volume(s) received
  - Known or suspected pollutants
  - Certification that the waste is not hazardous.

Prior to each discharge, the Control Authority should require a completed manifest form from the waste hauler. Each manifest sheet should be completed in triplicate: one copy for the waste hauler, one copy for the Control Authority's treatment plant's (or other appropriate department's) file, and one copy for the Control Authority's administrative/billing purposes. The Control Authority will usually supply blank manifest forms to each waste hauler. Additional requirements for hazardous waste haulers are discussed in Chapter 13.

• **Notification of Waste Type** - The Control Authority may want to require that any waste be approved prior to being hauled. The permit could require the hauler to notify the POTW of new customers as well as changes in the nature of wastewater originating from existing customers.
• **Random Sampling** - The discharge permit should contain a condition allowing for the random sampling of waste hauler loads prior to discharge to the POTW. The permit could also require the hauler to sample the waste where it is generated before it is pumped into the truck or rail car. This will provide the Control Authority with a mechanism for ensuring that discharges conform to appropriate standards and regulations. Even domestic wastes have been found to contain high concentrations of copper, lead, and zinc; therefore, it is important that a surveillance monitoring program for septic waste haulers be implemented.

• **Standard Conditions** - Many of the standard conditions placed in other industrial user permits (see Chapter 9) should also be contained in the waste hauler permits. A few of these are: modification of conditions, nontransferability, revocation of permit, and penalties/fines.
FIGURE 12-1. PROCEDURES OF A WASTE HAULER PERMIT PROGRAM

1. POTW notifies waste hauler of permit system requirements
2. Waste hauler applies for a discharge permit
3. Application approved or not? (Decision point)
   - If approved, POTW approves permit application and issues discharge permit.
   - POTW sets specific permit conditions, if necessary.
4. Waste hauler collects customer waste
5. Waste hauler records entry on manifest form
6. Waste hauler provides copy of manifest to POTW at time of discharge
   - POTW randomly samples waste hauler loads
7. POTW takes compliance action if permit violations are identified
8. Waste hauler discharges to POTW

POTW = Publicly Owned Treatment Works

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OVERVIEW OF REQUIREMENTS REGARDING POTW RECEIPT OF HAZARDOUS WASTES

The Control Authority should be aware that if its treatment plant accepts hazardous wastes by truck, rail, or dedicated pipeline within the property boundary of the treatment plant(s), that POTW is a hazardous waste treatment, storage, or disposal facility (TSDF) and is subject to regulation under the Resource Conservation and Recovery Act (RCRA), 42 USC 6901 et seq. RCRA establishes a comprehensive program regulating the management of non-exempt hazardous wastes from the time they are generated until ultimate disposal (i.e., a "cradle to grave" management system). Under the RCRA domestic sewage exclusion, mixtures of domestic sewage and other wastes (including hazardous wastes) that mingle in the collection system prior to reaching the POTW's property boundary are excluded from RCRA regulation. However, wastes that are delivered by truck, rail, or dedicated pipeline do not fall within this exclusion. Hazardous wastes received by these routes may only be accepted by POTWs if the POTWs comply with RCRA "permit-by-rule" requirements. State hazardous waste programs may also have laws governing POTWs that accept hazardous waste for treatment.

The RCRA permit-by-rule regulations in 40 CFR 270.60(c) require the POTW to:

- Have and comply with the conditions of a NPDES permit [40 CFR 270.60(c)(1) and (2)]
- Apply for an EPA identification number [40 CFR 264.11]
- Use a manifest system [40 CFR 264.71]
- Reconcile manifest discrepancies with the waste generator or transporter [40 CFR 264.72]
- Keep a written operating record of wastes received and treatment, storage, and disposal methods for the wastes [40 CFR 264.73(a) and (b) (1)]
CHAPTER 13  OVERVIEW OF REQUIREMENTS REGARDING POTW RECEIPT OF HAZARDOUS WASTES

• Submit a biennial report to the Regional Administrator [40 CFR 264.75]

• Submit a report to the Regional Administrator notifying EPA of any unmanifested wastes at the time of receipt [40 CFR 264.76]

• Institute corrective action, as necessary, as specified in the POTW's NPDES permit (for permits issued after November 8, 1984) [40 CFR 364.101]

• Require all wastes received to meet all Federal, State, and local pretreatment requirements, as if the wastes were being conveyed to the POTW by sewer, pipe, or similar conveyance [40 CFR 270.60(c)(4)].

A discussion of these requirements may be found in EPA's Guidance for Implementing RCRA Permit-by-Rule Requirements at POTWs.

A POTW can assume that it is receiving hazardous wastes by truck or rail if the wastes are accompanied by the hazardous waste manifest used in the RCRA program. If the waste hauler does not provide such a manifest, the POTW may still wish to determine if the hauled wastes are considered hazardous since RCRA responsibilities apply even if the POTW accepts such wastes unknowingly.

To be considered a hazardous waste, a waste must first be considered a "solid waste" as defined in Section 6903(27) of RCRA. To determine if a solid waste is regulated under Federal law as a hazardous waste, the POTW should determine whether the waste in question falls into one of the following categories:

• It is listed as a hazardous waste in Subpart D of 40 CFR 261 (unless it has been specifically delisted)

• It has not been listed, but it exhibits any of the characteristics of a hazardous waste described in Subpart C of 40 CFR 261

• It is a mixture of a listed waste and a nonhazardous waste or is derived from the treatment of a listed hazardous waste (unless it has been specifically excluded under 40 CFR 261.3). (Note: a mixture of a characteristic waste and a nonhazardous solid waste, or the residue from the treatment of a characteristic waste, is only considered hazardous if it exhibits one or more of the hazardous waste characteristics.)
For more information on identifying and regulating hazardous wastes, see the following EPA guidance materials:

- **RCRA Information on Hazardous Wastes for Publicly Owned Treatment Works**
- **RCRA Orientation Manual** (prepared by the Office of Solid Waste)
- **Guidance Manual for the Identification of Hazardous Waste Delivered to Publicly Owned Treatment Works by Truck, Rail, or Dedicated Pipeline**
- **Guidance for Implementing RCRA Permit-by-Rule Requirements at POTWs**

POTWs can choose not to accept the delivery of hazardous wastes by truck, rail or dedicated pipeline by:

- **Strictly prohibiting the discharge of any hauled wastes**
- **Prohibiting the discharge of any industrial process wastes** (i.e., accepting only domestic waste from haulers or dedicated pipelines)
- **Prohibiting the discharge of hazardous waste** (e.g., accept hauled and/or dedicated pipeline industrial process wastes but only if accompanied by sufficient documentation to demonstrate that wastes are not hazardous).

Reliable monitoring must be conducted to ensure that these conditions are met. The Control Authority should evaluate each of these methods before making a decision as to which method is the most appropriate for its treatment plant. Considerations such as local community practices should be taken into account (e.g., is contract hauling of household and industrial septage wastes common in the community or are most locations serviced by municipal sewer collection systems?).

In addition to the RCRA requirements incorporated by reference into the permit-by-rule requirements for POTWs, there may be other requirements which apply as a matter of law. For example, Sections 3004(d), (e), and (g) of RCRA prohibit the land disposal of hazardous waste in specified situations. These
requirements and others may apply to POTWs receiving hazardous waste by truck, rail, or dedicated pipeline. See Appendix D of EPA's *Guidance for Implementing RCRA Permit-by-Rule Requirements at POTWs* for other RCRA requirements which may apply, to POTWs that receive hazardous wastes by truck, rail, or dedicated pipeline.

In summary, the Control Authority should determine the applicability of RCRA requirements and responsibilities if its treatment plant currently accepts hauled wastes, especially if any of the hauled wastes are known or suspected to have been collected from industrial sites. POTWs not currently accepting hauled or dedicated pipeline hazardous wastes, which are considering doing so, should be aware of the RCRA responsibilities and potential liabilities associated with such practices.
PART IV

APPENDICES
APPENDIX A

BIBLIOGRAPHY
APPENDIX A

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North Carolina Department of Natural Resources and Community Development. NC Pretreatment Monitoring and Reporting Guidance. NC Report No. 84-01. February 1984.


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Office of Water Regulations and Standards
Environmental Protection Agency
Industrial Technology Division
401 M Street, S.W.
Washington, D.C. 20460

Phone Number: (202) 382-7113

Pretreatment Guidance Documents that have been prepared by EPA Headquarters are available in limited supply from EPA by writing to:

John Hopkins
Office of Water Enforcement Permits
Permits Division (EN-336)
401 M Street, S.W.
Washington, D.C. 20460

Phone Number: (202) 475-9532

Pretreatment Guidance Documents that have been prepared by EPA Regions or States may be available in limited supply by contacting the Regional or State Pretreatment Coordinator.
APPENDIX B

LIST OF STATE AND EPA PRETREATMENT COORDINATORS
### APPENDIX B

**PRETREATMENT COORDINATORS**

**U.S. EPA Headquarters and Regional Contacts - 1989**

#### EPA Regional Contacts

<table>
<thead>
<tr>
<th>Region</th>
<th>Address</th>
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<td>U.S. Environmental Protection Agency</td>
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<td>Washington, D.C. 20460</td>
<td>Director, Permits Division</td>
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<tr>
<td>Room 214, N.E. Mall</td>
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<tr>
<td>(202)475-9545</td>
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<tr>
<td>Mr. Ephraim King (EN-336)</td>
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<tr>
<td>Chief, Program Implementation Branch</td>
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<tr>
<td>(202)475-9533</td>
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<tr>
<td>Mr. Jeffrey Lape (EN-336)</td>
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<tr>
<td>Chief, Program Section</td>
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<td>Enforcement Division</td>
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<td>401 M Street, S.W.</td>
<td>Mr. Richard Kozlowski (EN-338)</td>
</tr>
<tr>
<td>Washington, D.C. 20460</td>
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</tr>
<tr>
<td>Room 216, N.E. Mall</td>
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<tr>
<td>(202)475-8304</td>
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# APPENDIX B

## PRETREATMENT COORDINATORS

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| Industrial Technology Division  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460 | Mr. Thomas P. O'Farrell (WH-552)  
Director, ITD  
Room E911C  
(202)382-7120 |
| Mr. Ernst P. Hall (WH-552)  
Chief, Metals Industry Branch  
Room E905C  
(202)382-7126 |
| Mr. Marvin Rubin (WH-552)  
Chief, Chemicals Branch  
Room E901C  
(202)382-7124 |

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</table>
| Office of General Counsel  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460 | Ms. Ruth Bell (LE-132W)  
Asst. General Counsel  
Office of General Counsel - Water Division  
Room W503  
(202)382-7706 |
# STATE PRETREATMENT CONTACTS

<table>
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</table>
| CT | Department of Environmental Protection  
Division of Water Compliance  
122 Washington Street  
Hartfort, CT 06106 | Mr. Mike Harder  
Assistant Director  
(203)566-3245 |
| | | Mr. James Grier  
Principal Sanitary Engineer  
(203)566-2719 |
| | | Mr. Simon Mobarek  
Principal Sanitary Engineer  
(203)566-3282 |
| MA | Department of Environmental Quality and Engineering  
Division of Water Pollution Control  
1 Winter Street  
Boston, MA 02108 | Mr. Joe Dorant  
Environmental Engineer  
(617)292-5645 |
| ME | Department of Environmental Protection  
21 Vocational Drive  
South Portland, ME 04106 | Mr. James L. Jones  
State Pretreatment Coordinator  
(207)767-4761 |
| NH | Department of Environmental Services  
Water Supply and Pollution Control Division  
P.O. Box 95  
Concord, NH 03301 | Mr. Dan Allen  
Supervisor, Industrial Pretreatment Program  
(603)271-2052 |
| RI | Department of Environmental Management  
Water Resources Division  
Permits and Planning Section  
291 Promenade Street  
Providence, RI 02908 | Ms. Christine Volkay-Hilditch  
Sanitary Engineer  
(401)277-6519 |
| | | Ms. Eileen Gleber  
Senior Environmental Scientist  
(401)277-6519 |
| | | Ms. Gina Natale-Friedman  
Junior Environmental Engineer  
(401)277-6519 |
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#### PRETREATMENT COORDINATORS

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</table>
| VT | Agency of Natural Resources  
Department of Environmental Conservation  
103 S. Maine Street  
Waterbury, VT 05676 | Mr. Gary Shokes  
Environmental Engineer  
(802)244-5674 |

| **REGION 2** | | |
| NJ | Department of Environmental Protection  
Division of Water Resources  
Office of Sludge Management and Industrial Pretreatment  
401 E. State Street (CN-029)  
Trenton, NJ 08625 | Ms. Mary Jo Aiello  
Chief - Industrial Pretreatment Section  
(609)633-3823 |
| NY | State Department of Environmental Conservation  
50 Wolf Road  
Albany, NY 12233-0001 | Mr. Robert Cronin  
Chief, Compliance Section  
Room 320  
(518)457-3790 |
| | | Mr. Angus Eaton  
Senior Sanitary Engineer  
Room 318  
(518)457-6716 |
| | | Mr. Robert E. Townsend  
Senior Sanitary Engineer  
Room 320  
(518)457-3790 |

| **REGION 3** | | |
| DE | Department of Natural Resources and Environmental Control  
Edward Tatnall Building  
89 Kings Highway  
P.O. Box 1401  
Dover, DE 19901 | Mr. Paul Janiga  
Environmental Engineer  
Water Resources Section  
(302)736-5731 |
| | | Mr. Frank Henshaw  
Environmental Engineer  
Point Source Control Program  
(302)736-3829 |

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<tr>
<td>MD</td>
<td>Department of the Environment Pretreatment Division State of Maryland 2500 Broening Highway Baltimore, MD 21224</td>
<td>Ms. Karen Irons Chief, Pretreatment Division (301)333-7480</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Gary Kelman Section Head, Pretreatment Division (301)333-7480</td>
</tr>
<tr>
<td>PA</td>
<td>Bureau of Water Quality Management Department of Environmental Resources P.O. Box 2063 Harrisburg, PA 17120</td>
<td>Mr. Tim Carpenter Chief, Operation Section Division of Sewerage &amp; Grants (717)787-8184</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Peter Slack Chief, Permits Section (717)787-8184</td>
</tr>
<tr>
<td>VA</td>
<td>State Water Control Board Office of Engineering Application P.O. Box 11143 2111 N. Hamilton Street Richmond, VA 23230</td>
<td>Ms. LaVern Corkran Pretreatment Program Director (804)367-6313</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Donald Richwine Program Manager (804)367-6389</td>
</tr>
<tr>
<td>WV</td>
<td>Department of Natural Resources 1201 Greenbrier Street Charleston, WV 25311</td>
<td>Mr. Pravin Sangani Engineer (304)348-4086</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Dave Montali Engineer (304)348-4086</td>
</tr>
<tr>
<td><strong>REGION 4</strong></td>
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<tr>
<td>AL</td>
<td>Department of Environmental Management Water Division State Office Building 1751 Federal Drive Montgomery, AL 36130</td>
<td>Mr. John Pool Chief, Industrial Branch (205)271-7700</td>
</tr>
<tr>
<td></td>
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<td>Mr. Curt Johnson Environmental Engineer II (205)271-7700</td>
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<tr>
<td>FL</td>
<td>Facilities Planning Section Department of Environmental Regulations Twin Towers Office Building 2600 Blair Stone Road Tallahassee, FL 32301</td>
<td>Mr. Noel Jack (904)488-8163</td>
</tr>
<tr>
<td>GA</td>
<td>Water Quality Control Environmental Protection Division Department of Natural Resources 205 Butler Street, E. Tower Atlanta, GA 30334</td>
<td>Mr. Alan Hallum Manager Municipal Permitting Program (404)656-7400</td>
</tr>
<tr>
<td>KY</td>
<td>Permit Review Branch Division of Water Natural Resources and Environmental Protection Cabinet 18 Reilly Road Frankfort, KY 40601</td>
<td>Mr. Michael Welch Pretreatment Coordinator (502)564-3410</td>
</tr>
<tr>
<td>MS</td>
<td>Department of Natural Resources Bureau of Pollution Control P.O. Box 10385 Jackson, MS 39209</td>
<td>Mr. Louis Lavallee Chief, Pretreatment Section (601)961-5171</td>
</tr>
<tr>
<td>NC</td>
<td>Department of Natural Resources and Community Development P.O. Box 27687 512 North Salisbury Street Raleigh, NC 27611-7687</td>
<td>Mr. Doug Finan Supervisor Pretreatment Unit (919)733-5083</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Nile Testerman Environmental Engineer (919)733-5083</td>
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<td></td>
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<td>Ms. Dana Folley Environmental Scientist (919)733-5083</td>
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<td>Ms. Suzanne Hoover Environmental Scientist (919)733-5083</td>
</tr>
<tr>
<td>State</td>
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<tr>
<td>SC</td>
<td>Department of Health and Environmental Control 2600 Bull Street Columbia, SC 29201</td>
<td>Mr. Russ Sherer Domestic Wastewater Division (803)734-5296 Mr. Brian Rivers Pretreatment Coordinator (803)734-5319</td>
</tr>
<tr>
<td>TN</td>
<td>Department of Health and Environment Division of Water Pollution Control 150 9th Avenue North Terra Building, 2nd Floor Nashville, TN 37219-5405</td>
<td>Mr. Roger Leemasters Pretreatment Coordinator (615)741-0633 Mr. Roger Slayden (615)741-0633 Mr. Scott Crabtree (615)741-0633</td>
</tr>
<tr>
<td>IL</td>
<td>Division of Water Pollution Control Illinois Environmental Protection Agency 2200 Churchill Road Springfield, IL 62706</td>
<td>Ms. Candy Morin Pretreatment Coordinator Permits Section (217)782-0610</td>
</tr>
<tr>
<td>IN</td>
<td>Department of Environmental Management Office of Water Management 105 South Meridian Indianapolis, IN 46225</td>
<td>Mr. Phil Preston Indiana Pretreatment Coordinator (317)232-8728</td>
</tr>
<tr>
<td>MI</td>
<td>Department of Natural Resources P.O. Box 30028 Lansing, MI 48909</td>
<td>Mr. Paul Blakeslee Pretreatment Coordinator Industrial Pretreatment Program (517)373-4624 &amp; 4625</td>
</tr>
<tr>
<td>State</td>
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<td>MN</td>
<td>Pollution Control Agency&lt;br&gt;Water Quality Division&lt;br&gt;520 Lafayette road, North&lt;br&gt;St. Paul, MN 55155</td>
<td>Mr. Randy Dunnette&lt;br&gt;Pretreatment Coordinator&lt;br&gt;(612)296-8006</td>
</tr>
<tr>
<td>OH</td>
<td>Ohio Environmental Protection Agency&lt;br&gt;1800 Watermark Drive&lt;br&gt;P.O. Box 1049&lt;br&gt;Columbus, OH 43266-0149</td>
<td>Mr. John Albrecht&lt;br&gt;Supervisor-Pretreatment Unit&lt;br&gt;(614)644-2028</td>
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<tr>
<td>WI</td>
<td>Department of Natural Resources&lt;br&gt;P.O. Box 7921&lt;br&gt;Madison, WI 53707</td>
<td>Mr. Stan Kleinert&lt;br&gt;Chief, Permit and Pretreatment Section&lt;br&gt;(608)267-7635</td>
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<tr>
<td></td>
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<td>Mr. Randy Case&lt;br&gt;Pretreatment Unit Leader&lt;br&gt;(608)267-7639</td>
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<td><strong>REGION 6</strong></td>
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<tr>
<td>AR</td>
<td>Department of Pollution Control and Energy&lt;br&gt;8001 National Drive&lt;br&gt;Little Rock, AR 72009</td>
<td>Ms. Donna Parks&lt;br&gt;Pretreatment Coordinator&lt;br&gt;Enforcement Division&lt;br&gt;(501)562-7444</td>
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<td>LA</td>
<td>Department of Environmental Quality&lt;br&gt;Office of Water Resources&lt;br&gt;Water Pollution Control Division&lt;br&gt;P.O. Box 44091&lt;br&gt;Baton Rouge, LA 70804-4091</td>
<td>Ms. Barbara Romanowski&lt;br&gt;Regulations Unit Coordinator&lt;br&gt;(504)342-6363</td>
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<tr>
<td>NM</td>
<td>Environmental Improvement Division&lt;br&gt;Surface Water Quality Bureau&lt;br&gt;P.O. Box 968&lt;br&gt;Santa Fe, NM 87504-0968</td>
<td>Ms. Ann Young&lt;br&gt;Environmental Scientist&lt;br&gt;(505)827-2796</td>
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<tr>
<td>OK</td>
<td>State Department of Health&lt;br&gt;1000 N.E. 10th Street&lt;br&gt;Oklahoma City, OK 73152</td>
<td>Mr. Ted Williamson&lt;br&gt;Pretreatment Engineer&lt;br&gt;(405)271-7335</td>
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## APPENDIX B  PRETREATMENT COORDINATORS

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</table>
| TX    | Water Commission  
1700 North Congress  
P.O. Box 13087  
Capital Station  
Austin, TX 78711-3087 | Ms. Ann McGinley  
Chief, Wastewater Permits Section  
(512)463-7788  
Mr. Randy Palachek  
Environmental Scientist  
(512)463-8420 |
| **REGION 7** | | |
| IA    | Department of Natural Resources  
Henry A. Wallace Building  
900 East Grand  
Des Moines, IA 50319 | Mr. Steve Williams  
Environmental Specialist  
Wastewater Permits Branch  
(515)281-8884 |
| KS    | Department of Health and Environment  
Water Pollution Control Section  
6700 S. Topeka Blve.  
Building 740 - Forbes Field  
Topeka, KS 66620 | Mr. Don Carlson  
Chief, Industrial Unit  
(913)296-1500  
Mr. Steve Casper  
Environmental Technician  
(913)296-5551  
Mr. Elborn Mendenhall  
Chief, Pretreatment Unit  
(913)296-5552 |
| MO    | Department of Natural Resources  
Division of Environmental Quality  
P.O. Box 176  
Jefferson City, MO 65101 | Mr. Richard Kuntz  
Environmental Engineer  
(314)751-6996 |
| NE    | Department of Environmental Control  
Water Pollution Control Division  
Box 94877, Statehouse Station  
301 Centennial Mall, South  
Lincoln, NE 68509 | Mr. Jay Ringenberg  
Environmental Specialist  
(402)471-2186  
Mr. Jim Yeggy  
Pretreatment Coordinator  
Environmental Specialist  
(402)471-4239 |

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### PRETREATMENT COORDINATORS

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<tr>
<td>CO</td>
<td>Department of Health  Water Quality Control Division  4210 E. 11th Avenue  Denver, CO 80220</td>
<td>Mr. Phil Hegeman  Industrial Pretreatment Coordinator  (303)331-4564</td>
</tr>
<tr>
<td>MT</td>
<td>Water Quality Bureau  Department of Health  Capitol Station  Helena, MT 59601</td>
<td>Mr. Fred Shewman  Sanitary Engineer  (406)444-2406</td>
</tr>
<tr>
<td>ND</td>
<td>State Department of Health  1200 Missouri Avenue  Bismarck, ND 58505</td>
<td>Ms. Sheila McLlenathen  Permits  (701)224-4578</td>
</tr>
<tr>
<td>SD</td>
<td>Department of Water and Natural Resources  Foss Building, Room 416  Pierre, SD 57501</td>
<td>Mr. Brad Archibald  Natural Resource Engineer  (605)773-3351</td>
</tr>
<tr>
<td>UT</td>
<td>Department of Health  Division of Environmental Health  Water Pollution Control  P.O. Box 16690  Salt Lake City, UT 84116-0690</td>
<td>Ms. Mary Koltenuk  Pretreatment Coordinator  (801)538-6146</td>
</tr>
<tr>
<td>WY</td>
<td>Department of Environmental Quality  122 West 25th Street  Cheyenne, WY 82002</td>
<td>Mr. John Wagner  Technical Supervisor  Water Quality Division  (307)777-7781</td>
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<tr>
<td><strong>REGION 9</strong></td>
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<tr>
<td>AZ</td>
<td>Department of Environmental Quality  Office of Water Quality  2655 E. Magnolia  Phoenix, AZ 85034</td>
<td>Mr. Charles Ohr  Quality Assurance Officer  (602)392-4003</td>
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</table>
| CA | State Water Resource Control Board  
901 P Street  
Box 100  
Sacramento, CA 95801 | Mr. Scott McFarland  
Water Resource Control Engineer  
Division of Water Quality  
(916)223-1033 |
| HI | State Department of Health  
P.O. Box 3378  
Honolulu, HI 96801 | Mr. Charley Oumi  
Chief of NPDES Section  
(808)548-6410 |
| NV | Department of Environmental Protection  
201 S. Fall Street  
Capitol Complex  
Carson City, NV 89710 | Mr. Joe Livak  
Pretreatment Coordinator  
(702)885-4670 |
| **REGION 10** | | |
| OR | Department of Environmental Quality  
Executive Building  
811 Southwest 6th Avenue  
Portland, OR 97204 | Mr. John Harrison  
Supervisor, Source Control  
(503)229-5371 |
| WA | State Department of Ecology  
Mail Stop PV-11  
Olympia, WA 98504 | Mr. Joe Subsits  
Pretreatment Coordinator  
(206)438-7777  
General Information  
(206)459-6000 |
APPENDIX C

GLOSSARY OF TERMS
This glossary includes a collection of some of the terms used in this manual and an explanation of each term. To the extent that explanations provided in this glossary differ from those in EPA regulations or other official documents, they are intended for use in understanding this manual only.

**Approval Authority** - The Director in an NPDES state with an approved State Pretreatment Program and the appropriate EPA Regional Administrator in a non-NPDES State or NPDES State without an approved State pretreatment program [40 CFR 403.3(c)].

**Baseline Monitoring Report (BMR)** - A report submitted by categorical industrial users within 180 days after the effective date of an applicable categorical standard which indicates the compliance status of the user with the categorical standard [40 CFR 403.12(b)].

**Best Professional Judgment (BPJ)** - The highest quality technical opinion of a permit writer, after consideration of all reasonably available and pertinent data or information, forming the basis for the terms and conditions of a permit.

**Categorical Pretreatment Standards** - Limitations on pollutant discharges to POTWs promulgated by EPA in accordance with Section 307 of the Clean Water Act, that apply to specified process wastewaters of particular industrial categories [40 CFR 403.6 and Parts 405-471].

**Categorical Industrial User** - An industrial user subject to categorical pretreatment standards.


**Combined Wastestream Formula (CWF)** - Procedure for calculating alternative discharge limits at industrial facilities where a regulated wastestream from a categorical industrial user is combined with other wastestreams prior to treatment [40 CFR 403.6(e)].

**Concentration Limit** - A limit based on the mass of pollutant per unit volume, usually expressed in milligrams per liter.

**Control Authority** - A POTW with an approved pretreatment program or the Approval Authority in the absence of a POTW pretreatment program [40 CFR 403.12 (a)].
Conventional Pollutants - As defined by Federal law, these include BOD, TSS, fecal coliform bacteria, oil and grease, and pH [40 CFR 401.16].

Daily Maximum Limit - The maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

Development Document - Detailed report of studies conducted by the U.S. EPA for the purpose of developing categorical pretreatment standards.

Dilute Wastestream - For purposes of the combined wastestream formula, the average daily flow (at least a 30-day average) from: (a) boiler blowdown streams, non-contact cooling streams, storm water streams, and demineralizer backwash streams (provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, prior to treatment, with an industrial user's regulated process wastestream(s) will result in a substantial reduction of that pollutant, the Control Authority, upon application of the industrial user, may exercise its discretion to determine whether such stream(s) should be classified as diluted or unregulated. In its application to the Control Authority, the industrial user must provide engineering, production, sampling and analysis, and such other information so that the Control Authority can make its determination); or (b) sanitary wastestreams where such streams are not regulated by a categorical pretreatment standard; or (c) from any process wastestreams which were, or could have been, entirely exempted from categorical pretreatment standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one or more of the following reasons (see Appendix D of 40 CFR 403):

a. The pollutants of concern are not detectable in the effluent from the industrial user [paragraph (8)(a)(iii)]

b. The pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects [paragraph (8)(a)(iii)]

c. The pollutants of concern are present in amounts too small to be effectively deduced by technologies known to the Administrator [paragraph (8)(a)(iii)]; or

d. The wastestream contains only pollutants which are compatible with the POTW [paragraph (8)(b)(1)] [40 CFR 403.6(e)].

Director - The chief administrative officer of a State or interstate water pollution control agency with an NPDES permit program and state pretreatment program approved pursuant to Section 402(b) of the Clean Water Act.
Flow Proportional Composite Sample - A sampling method which combines discrete aliquots of a sample collected over time, based on the flow of the wastestream being sampled. There are two methods used to collect this type of sample. One method collects a constant sample volume at time intervals which vary based on the stream flow [e.g., 200 milliliters (ml) sample collected for every 5,000 gallons discharged]. The other method collects aliquots of varying volume, based on stream flow, at constant time intervals.

Flow Weighted Averaging Formula (FWA) - A procedure used to calculate alternative limits where wastestreams regulated by a categorical pretreatment standard and nonregulated wastestreams combine after treatment but prior to the monitoring point.

Grab Sample - A sample which is taken from a waste stream on a one-time basis with no regard to the flow of the waste stream and without consideration of time.

Indirect Discharge - The introduction of pollutants into a POTW from any nondomestic source regulated under Section 307(b), (c), or (d) of the Clean Water Act.

Industrial User (IU) or User - A source of nondomestic waste. Any nondomestic source discharging pollutants to a POTW.

Industrial User Management Practices - Schedules of activities, prohibitions or practices, maintenance procedures, and other management practices designed to prevent or reduce pollution discharges. These practices may address treatment requirements, operating procedures, and practices to control spills or leaks, sludge or waste disposal, or drainage from raw material storage.

Instantaneous Maximum Limit - The maximum allowable concentration of a pollutant determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

Interference - A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

a. Inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use, or disposal; and

b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA) and including State
APPENDIX C

GLOSSARY OF TERMS

regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research, and Sanctuaries Act [40 CFR 403.3].

Monthly Average Limit - The maximum allowable value for the average of all observations obtained during one calendar month.

National Pretreatment Standard or Pretreatment Standard - Any regulation promulgated by the EPA in accordance with Section 307(b) and (c) of the Clean Water Act which applies to a specific category of industrial users and provides limitations on the introduction of pollutants into POTWs. This term includes the prohibited discharge standards under 40 CFR 403.5, including local limits [40 CFR 403.3(j)].

National Prohibited Discharges - Prohibitions applicable to all nondomestic dischargers regarding the introduction of pollutants into POTWs set forth at 40 CFR 403.9.

Net/Gross Calculations - An adjustment to Categorical Pretreatment Standards to reflect the presence of pollutants in the industrial user's intake water [40 CFR 403.15].

Ninety (90)-day Compliance Report - A report submitted by a categorical industrial user, within 90 days following the date for final compliance with applicable categorical standards, or, in the case of a New Source, following commencement of the introduction of wastewater into the POTW, that documents and certifies the compliance status of the user [40 CFR 403.12(d)].

Nonconventional Pollutants - All pollutants which are not included in the list of conventional or toxic pollutants in 40 CFR Part 401.

Nondomestic User - Any person who discharges causes or permits the discharge of wastewater from any facility other than a residential unit.

Pass Through - A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) [40 CFR 403.3(n)].

Periodic Compliance Report - A report on compliance status submitted by categorical industrial users to the Control Authority at least semiannually [40 CFR 403.12(e)].

Pretreatment - The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW [40 CFR 403.3(q)].
Pretreatment Standards for Existing Sources (PSES) - Categorical standards and requirements applicable to industrial sources that began construction prior to the publication of the proposed pretreatment standards for that industrial category. (See individual categorical standards in 40 CFR Parts 405-471 for specific dates.)

Pretreatment Standards for New Sources (PSNS) - Categorical Standards and requirements applicable to industrial sources that began construction after the publication of the proposed pretreatment standards for that industrial category. (See individual categorical standards in 40 CFR Parts 405-471 for specific dates.)

Process Wastewater - Any water which, during manufacturing or processing, comes into direct contact with or results from the production of or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Production-based Standard - A discharge limitation expressed in terms of allowable pollutant mass discharge per unit of production.

Publicly Owned Treatment Works (POTW) - A treatment works as defined by Section 212 of the Clean Water Act which is owned by the State or municipality. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant [40 CFR 403.3(o)].

Regulated Wastestream - An industrial process wastestream regulated by a national categorical pretreatment standard.

Resource Conservation and Recovery Act (RCRA) - A Federal statute regulating the management of hazardous waste from its generation through ultimate disposal. The Act contains requirements for waste generators, transporters, and owners and operators of treatment, storage, and disposal facilities [42 USC 6901 et seq.].

Self-monitoring - Sampling and analyses performed by the industrial user to ensure compliance with the permit or other regulatory requirements [40 CFR 403.12 (b) and (g)].

Significant Industrial User (SIU) - (a) all categorical industrial users and (b) any noncategorical industrial user that (i) discharges 25,000 gallons per day or more of process wastewater ("process wastewater" excludes sanitary, noncontact cooling, and boiler blowdown wastewater), or (ii) contributes a process wastestream which makes up five percent or more of the average dry weather hydraulic or organic (BOD, TSS, etc.) capacity of the treatment plant, or (iii) has a reasonable potential, in the opinion of the Control or Approval...
Authority to adversely affect the POTW operation (inhibition, pass through of pollutants, sludge contamination, or endangerment of POTW workers).

*Slug Load* - Any pollutant (including Biochemical Oxygen Demand) released in a discharge at a flow rate or concentration which will cause a violation of the specific discharge prohibitions in 40 CFR 403.5(b) to 403.12(f).

*Spill Prevention and Control Plan* - A plan prepared by an industrial user to minimize the likelihood of a spill and to expedite control and cleanup activities should a spill occur.

*Split Sample* - Portion of a collected sample given to the industry or to another agency to verify or compare laboratory results.

*Standard Industrial Classification (SIC) Code* - A classification scheme based on the type of manufacturing or commercial activity at a facility; some facilities have several activities which will cause them to have more than one code number.

*Standard Industrial Classification Manual* - Prepared by the Executive Office of the President, Office of Management and Budget 1987 (NTIS Order No. PB 87-100012).

*Time Proportional Composite Sample* - A sampling method which combines discrete sample aliquots of constant volume collected at constant time intervals (e.g., 200 milliliter (ml) samples collected every half hour for a 24-hour period). This method provides representative samples only where the sampled stream flow is constant, or where the volume is manually adjusted based on stream flow variation prior to being added to the composite sample container.

*Total Toxic Organics (TTO)* - The sum of the masses or concentrations of the specific toxic organic compounds regulated by specific categorical pretreatment regulations which is found in the discharge at specific quantifiable concentrations. (Refer to the specific categorical regulations to identify which compounds are regulated, what numeric value is considered "quantifiable," and what sampling or certification alternatives may be available.)

*Toxic Organic Management Plan* - Written plan submitted by industrial users in accordance with some categorical pretreatment standards as an alternative to TTO monitoring which specifies the toxic organic compounds used, the method of disposal used, and procedures for assuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW.

*Toxic Pollutant* - Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of EPA under the provision of the Clean Water Act 307(a) [40 CFR Part 403 Appendix B].
Treatability Manual - Guidance prepared by the U.S. EPA that provides detailed descriptions of industrial processes, potential pollutants from each process, appropriate treatment technologies, and cost estimating procedures.

Unregulated Wastestream - For purposes of the combined wastestream formula, a wastestream that is not regulated by a national categorical pretreatment standard and is not considered a dilute wastestream.

Upset - An exceptional incident in which there is unintentional and temporary noncompliance with the categorical pretreatment standards because of factors beyond the reasonable control of the Industrial User. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 CFR 403.16(a)].
APPENDIX D

SAMPLE SEWER USE ORDINANCE PROVISIONS FOR PERMITS
APPENDIX D
SAMPLE SEWER USE ORDINANCE PROVISIONS FOR PERMITS

Readers are cautioned that this Appendix only addresses permit-related provisions of a sewer use ordinance. It does not contain provisions for the adoption of Federal, State, or local pretreatment standards; compliance monitoring and reporting activities or enforcement response. Since these sample provisions are not complete, they must not be substituted for a municipality's entire existing ordinance.

1.0 APPLICABILITY

1.1 This ordinance shall apply to all nondomestic users of the [name of City's] publicly owned treatment works (the "POTW") which discharge directly or indirectly into the POTW's sanitary sewer system. In addition, it should be unlawful for any nondomestic user located outside the City limits to continue discharges to the POTW except as provided in Section 3.4.

2.0 DEFINITIONS

In addition to the terms below, the sewer use ordinance should define the following additional terms, including but not limited to: pass through, superintendent, industrial user, nondomestic user, interference, liquid waste hauler, and nondomestic waste.

2.1 Operator: means the person responsible for the overall operation of a facility.

2.2 Owner: means the person who owns a facility or part of a facility.

2.3 Person: means any individual, association, partnership, corporation, municipality, State, Federal agency or any agent or employee thereof.

2.4 Significant Industrial User (SIU): means

a. All dischargers subject to Categorical Pretreatment standards under 40 CFR Chapter I, Subchapter N; and

b. All noncategorical dischargers that, in the opinion of the City, have a reasonable potential to adversely affect the POTW's operation, or that contribute a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant, or that discharge an average of 25,000 gallons per day or more of process wastewater to the POTW. However, the City need not designate as Significant any noncategorical Industrial User
that, in the opinion of the City and with the agreement of the Approval Authority, has no potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement. Any noncategorical Industrial User designated as Significant may petition the City to be deleted from the list of Significant Industrial Users on the grounds that it has no potential for adversely affecting the POTW's operation or violating any pretreatment standard or requirement.

3.0 PERMIT REQUIREMENTS

3.1 All nondomestic users must notify the Superintendent of the nature and characteristics of their wastewater prior to commencing their discharge. The Superintendent is authorized to prepare a form for this purpose.

3.2 It shall be unlawful for significant industrial users to discharge wastewater, either directly or indirectly, into the City's sanitary sewer system without first obtaining an industrial user pretreatment permit from the POTW Superintendent. Any violation of the terms and conditions of an industrial user pretreatment permit shall be deemed a violation of this chapter. Obtaining an industrial user pretreatment permit does not relieve a permittee of its obligation to obtain other permits required by Federal, State, or local law.

3.3 The Superintendent may require that other industrial users, including liquid waste haulers, obtain industrial user pretreatment permits as necessary to carry out the purposes of this chapter.

3.4 Any industrial user located beyond the city limits shall submit a permit application in accordance with Section 4.0 below within [number of days] of the effective date of this ordinance. New industrial users located beyond the city limits shall submit such applications to the Superintendent [number of days] prior to discharging into the sanitary sewer. Upon review and approval of such application, the Superintendent may enter into a contract with the user which requires the user to subject itself to, and abide by this Chapter, including all permitting, compliance monitoring, reporting, and enforcement provisions herein.

3.5 Existing Connections: Any significant industrial user which discharges nondomestic waste into the sanitary sewer system prior to the effective date of this ordinance and who wishes to continue such discharges in the future, shall, within ninety (90) days after said date, apply to the City for an industrial user pretreatment permit and shall not cause or allow discharges to the POTW to continue after one hundred eighty (180) days from and after the effective date of this ordinance except in accordance with a permit issued by the Superintendent.
APPENDIX D  SAMPLE SEWER USE ORDINANCE PROVISIONS FOR PERMITS

3.6 New Connections: Any significant industrial user proposing to begin or recommence discharging nondomestic wastes into the sanitary sewer system must obtain a pretreatment permit prior to beginning or recommencing such discharge. An application for this permit must be filed at least [Control Authority should include the number of days] days prior to the anticipated start up date.

4.0 PERMIT APPLICATION

4.1 In order to be considered for a pretreatment permit, all industrial users required to have a permit must submit the following information on an application form approved by the Superintendent:

a. Name, address, and location (if different from the address)

b. Standard Industrial Classification (SIC) code of both the industry as a whole and any processes for which Federal categorical standards have been promulgated

c. Wastewater constituents and characteristics including any pollutants in the discharge which are limited by any Federal, State, or local standards. Sampling and analysis will be undertaken in accordance with 40 CFR Part 136

d. Time and duration of the discharge

e. Daily maximum, daily average, and monthly average wastewater flow rates, including daily, monthly, and seasonal variations, if any

f. Description of activities, facilities, and plant processes on the premises, including a list of all raw materials and chemicals used at the facility which are or could accidentally or intentionally be discharged to the POTW

g. The site plans, floor plans and mechanical and plumbing plans and details to show all sewers, floor drains, and appurtenances by size, location and elevation

h. Each product produced by type, amount, process or processes and rate of production

i. Type and amount of raw materials processed (average and maximum per day)

j. Number and type of employees, and hours of operation, and proposed or actual hours of operation of the pretreatment system

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k. Whether additional operation and maintenance (O&M) and/or additional pretreatment is required for the user to meet all applicable Federal, State, and local standards. If additional pretreatment and/or O&M will be required to meet the standards, then the industrial user shall indicate the shortest time schedule necessary to accomplish installation or adoption of such additional treatment and/or O&M. The completion date in this schedule shall not be longer than the compliance date established for the applicable pretreatment standard. The following conditions apply to this schedule:

(i) The schedule shall contain progress increments 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 (such events include hiring an engineer, completing preliminary plans, completing final plans, executing contracts for major components, commencing construction, completing construction, beginning operation, and conducting routine operation). No increment referred to in (a) above shall exceed nine (9) months, nor shall the total compliance period exceed eighteen (18) months.

(ii) No 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, the reason for any delay, and if appropriate, the steps being taken by the user to return to the established schedule. In no event shall more than nine (9) months elapse between such progress reports to the Superintendent.

1. Any other information as may be deemed by the Superintendent to be necessary to evaluate the permit application.

4.2 All plans required in Section 4.1 must be certified for accuracy by a State registered professional engineer.

4.3 All applications must contain the following certification statement and be signed in accordance with Sections (a), (b), (c) or (d) below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief,"
true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

a. By a responsible corporate officer, if the Industrial User submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:

(i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

(ii) The manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship respectively.

c. The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal, State, or local governmental entity, or their agents.

d. By a duly authorized representative of the individual designated in paragraph (a), (b) or (c) of this section if:

(i) The authorization is made in writing by the individual described in paragraph (a), (b) or (c).

(ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(iii) The written authorization is submitted to the City.

e. If an authorization under paragraph (d) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new
authorization satisfying the requirements of paragraph (d) of this section must be submitted to the City prior to or together with any reports to be signed by an authorized representative.

4.4 The Superintendent will evaluate the data furnished by the industrial user and may require additional information. After evaluation of the data furnished, the Superintendent may issue an industrial user pretreatment permit subject to terms and conditions provided herein.

5.0 PRETREATMENT PERMIT CONTENTS

5.1 Pretreatment permits shall include such conditions as are reasonably deemed necessary by the superintendent to prevent pass through or interference, protect the quality of the water body receiving the POTW's effluent, protect worker health and safety, facilitate POTW sludge management and disposal, protect ambient air quality, and protect against damage to the POTW collection system or plant. Permits may contain, but need not be limited to, the following:

a. Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization

b. Limits on the average and/or maximum concentration, mass, or other measure of identified wastewater constituents or properties

c. Requirements for the installation of pretreatment technology or construction of appropriate containment devices, etc., designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works

d. Development and implementation of spill control plans or other special conditions including additional management practices necessary to adequately prevent accidental, unanticipated, or routine discharges

e. The unit charge or schedule of user charges and fees for the management of the wastewater discharged to the POTW

f. Requirements for installation and maintenance of inspection and sampling facilities

g. Specifications for monitoring programs which may include sampling locations, frequency of sampling, number, types, and standards for tests, and reporting schedules

h. Compliance schedules
I. Requirements for submission of technical reports or discharge reports

j. Requirements for maintaining and retaining plant records relating to wastewater discharge as specified by the Superintendent and affording the Superintendent, or his representatives, access thereto

k. Requirements for notification of any new introduction of wastewater constituents or of any substantial change in the volume or character of the wastewater being introduced into the POTW

l. Requirements for the notification of any change in the manufacturing and/or pretreatment process used by the permittee

m. Requirements for notification of excessive, accidental, or slug discharges

n. Other conditions as deemed appropriate by the Superintendent to ensure compliance with this ordinance, and State and Federal laws, rules, and regulations

o. A statement that compliance with the permit does not relieve the permittee of responsibility for compliance with all applicable Federal pretreatment standards, including those which become effective during the term of the permit.

6.0 PERMIT ISSUANCE PROCESS

6.1 Permit Duration: Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than five (5) years, at the discretion of the Superintendent.

6.2 Public Notification: The Superintendent will publish [in an official government publication and/or daily newspaper(s)], notice of intent to issue a pretreatment permit, at least fourteen (14) days prior to issuance. The notice will indicate a location where the draft permit may be reviewed and an address where written comments may be submitted.

6.3 Permit Appeals: The Superintendent will provide all interested persons with notice of final permit decisions. Upon notice by the Superintendent, any person, including the industrial user, may petition to appeal the terms of the permit within thirty (30) days of the notice.

a. Failure to submit a timely petition for review shall be deemed to be a waiver of the appeal
b. In its petition, the appealing party must indicate the permit provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to be placed in the permit.

c. The effectiveness of the permit shall not be stayed pending a reconsideration by the Board. If, after considering the petition and any arguments put forth by the Superintendent, the Board determines that reconsideration is proper, it shall remand the permit back to the Superintendent for reissuance. Those permit provisions being reconsidered by the Superintendent shall be stayed pending reissuance.

d. A Board of Directors' decision not to reconsider a final permit shall be considered final administrative action for purposes of judicial review.

e. Aggrieved parties seeking judicial review of the final Control Authority action must do so by filing a complaint with the [name of court] for [name of County] within [insert appropriate State Statute of Limitations].

6.4 Permit Action: The superintendent may modify the permit for good cause including, but not limited to, the following:

a. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements.

b. Material or substantial alterations or additions to the discharger's operation processes, or discharge volume or character which were not considered in drafting the effective permit.

c. A change in any condition in either the industrial user or the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge.

d. Information indicating that the permitted discharge poses a threat to the Control Authority's collection and treatment systems, POTW personnel or the receiving waters.

e. Violation of any terms or conditions of the permit.

f. Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required reporting.

g. Revision of or a grant of variance from such categorical standards pursuant to 40 CFR 403.13; or

h. To correct typographical or other errors in the permit.
i. To reflect transfer of the facility ownership and/or operation to a new owner/operator.

j. Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6.5 Permit Transfer: Permits may be reassigned or transferred to a new owner and/or operator with prior approval of the Superintendent:

a. The permittee must give at least thirty (30) days advance notice to the Superintendent.

b. The notice must include a written certification by the new owner which:
   (i) States that the new owner has no immediate intent to change the facility’s operations and processes.
   (ii) Identifies the specific date on which the transfer is to occur.
   (iii) Acknowledges full responsibility for complying with the existing permit.

6.6 Permit Termination: Pretreatment permits may be terminated for the following reasons:

a. Falsifying self-monitoring reports.

b. Tampering with monitoring equipment.

c. Refusing to allow timely access to the facility premises and records.

d. Failure to meet effluent limitations.

e. Failure to pay fines.

f. Failure to pay sewer charges.

g. Failure to meet compliance schedules.

6.7 Permit Reissuance: The user shall apply for permit reissuance by submitting a complete permit application a minimum of ninety (90) days prior to the expiration of the user’s existing permit.
6.8 Continuation of Expired Permits: An expired permit will continue to be effective and enforceable until the permit is reissued if:

a. The industrial user has submitted a complete permit application at least ninety (90) days prior to the expiration date of the user's existing permit.

b. The failure to reissue the permit, prior to expiration of the previous permit, is not due to any act or failure to act on the part of the industrial user.

6.9 Special Agreements: Nothing in this ordinance shall be construed as preventing any special agreement or arrangement between the POTW and any user whereby wastewater of unusual strength or character is accepted into the POTW and specially treated and subject to any payments or user charges, as may be applicable. However, no discharge which violates pretreatment standards will be allowed under the terms of such special agreements. If, in the opinion of the Superintendent, the wastewater may have the potential to cause or result in any of the following circumstances, no such special agreement will be made:

a. Pass through or interference

b. Endanger municipal employees or the public.

[In addition, there will need to be special provisions in the ordinance addressing the unique concerns of permitting liquid waste haulers.]
APPENDIX E

SAMPLE PERMIT APPLICATION FORM
Note: Please read all attached instructions prior to completing this application.

SECTION A - GENERAL INFORMATION

1. Facility Name:
   a. Operator Name:
   b. Is the operator identified in 1.a., the owner of the facility? 
      Yes [ ] No [ ]
      If no, provide the name and address of the operator and submit a copy of the contract and/or other documents indicating the operator's scope of responsibility for the facility.

2. Facility Address:
   Street: _____________________________  City: __________  State: _______  Zip: _______

3. Business Mailing Address:
   Street or P.O. Box: ____________________________  City: __________  State: _______  Zip: _______

4. Designated signatory authority of the facility:
   [Attach similar information for each authorized representative]
   Name: ______________________________________
   Title: ______________________________________
   Address: ____________________________________
   City: __________  State: _______  Zip: _______
   Phone #: _________________________________

5. Designated facility contact:
   Name: ______________________________________
   Title: ______________________________________
   Phone #: _________________________________
SECTION B - BUSINESS ACTIVITY

1. If your facility employs or will be employing processes in any of the industrial categories or business activities listed below (regardless of whether they generate wastewater, waste sludge, or hazardous wastes), place a check beside the category of business activity (check all that apply).

Industrial Categories*

[ ] Aluminum Forming
[ ] Asbestos Manufacturing
[ ] Battery Manufacturing
[ ] Can Making
[ ] Carbon Black
[ ] Coal Mining
[ ] Coil Coating
[ ] Copper Forming
[ ] Electric and Electronic Components Manufacturing
[ ] Electroplating
[ ] Feedlots
[ ] Fertilizer Manufacturing
[ ] Foundries (Metal Molding and Casting)
[ ] Glass Manufacturing
[ ] Grain Mills
[ ] Inorganic Chemicals
[ ] Iron and Steel
[ ] Leather Tanning and Finishing
[ ] Metal Finishing
[ ] Nonferrous Metals Forming
[ ] Nonferrous Metals Manufacturing
[ ] Organic Chemicals Manufacturing
[ ] Paint and Ink Formulating
[ ] Paving and Roofing Manufacturing
[ ] Pesticides Manufacturing
[ ] Petroleum Refining
[ ] Pharmaceutical
[ ] Plastic and Synthetic Materials Manufacturing
[ ] Plastics Processing Manufacturing
[ ] Porcelain Enamel
[ ] Pulp, Paper, and Fiberboard Manufacturing
[ ] Rubber
[ ] Soap and Detergent Manufacturing
[ ] Steam Electric
[ ] Sugar Processing
[ ] Textile Mills
[ ] Timber Products
A facility with processes inclusive in these business areas may be covered by Environmental Protection Agency's (EPA) categorical pretreatment standards. These facilities are termed "categorical users".

2. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3. Indicate applicable Standard Industrial Classification (SIC) for all processes (If more than one applies, list in descending order of importance.):

a. 

b. 

c. 

d. 

e. 

4. PRODUCT VOLUME:

<table>
<thead>
<tr>
<th>PRODUCT (Brandname)</th>
<th>PAST CALENDAR YEAR Amounts Per Day (Daily Units)</th>
<th>ESTIMATE THIS CALENDAR YEAR Amounts Per Day (Daily Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(levels with others (and no u.l)</td>
<td>Average</td>
<td>Maximum</td>
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</tbody>
</table>

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SECTION C - WATER SUPPLY

1. Water Sources: (Check as many as are applicable)
   - [ ] Private Well
   - [ ] Surface Water
   - [ ] Municipal Water Utility (Specify City):
   - [ ] Other (Specify):

2. Name on the water bill: __________________________________________

   Name: __________________________________________
   Street: __________________________________________
   City: __________________________ State: _______ Zip: _______

3. Water service account number: ________________________________

4. List average water usage on premises:
   [New facilities may estimate]

<table>
<thead>
<tr>
<th>Type</th>
<th>Average Water Usage (GPD)</th>
<th>Indicate Estimated (E) or Measured (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Contact cooling water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Non-contact cooling water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Boiler feed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Sanitary</td>
<td></td>
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<tr>
<td>f. Air pollution control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Contained in product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Plant and equipment washdown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Irrigation and lawn watering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. TOTAL OF A-J</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   Average Water Usage (GPD): 

   Indicate Estimated (E) or Measured (M): 

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SECTION D - SEWER INFORMATION

1. **a. For an existing business:**

   Is the building presently connected to the public sanitary sewer system?
   
   [ ] Yes: Sanitary sewer account number ____________________________
   [ ] No: Have you applied for a sanitary sewer hookup? [ ] Yes [ ] No

   **b. For a new business:**

   (i). Will you be occupying an existing vacant building (such as in an industrial park)? [ ] Yes [ ] No

   (ii). Have you applied for a building permit if a new facility will be constructed? [ ] Yes [ ] No

   (iii). Will you be connected to the public sanitary sewer system? [ ] Yes [ ] No

2. List size, descriptive location, and flow of each facility sewer which connects to the City's sewer system. (If more than three, attach additional information on another sheet.)

<table>
<thead>
<tr>
<th>Sewer Size</th>
<th>Descriptive Location of Sewer Connection or Discharge Point</th>
<th>Average Flow (GPD)</th>
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SECTION E - WASTEWATER DISCHARGE INFORMATION

1. Does (or will) this facility discharge any wastewater other than from restrooms to the City sewer?
   [ ] Yes  If the answer to this question is "yes", complete the remainder of the application.
   [ ] No   If the answer to this question is "no", skip to Section I.

2. Provide the following information on wastewater flow rate.
   [New facilities may estimate]
   a. Hours/Day Discharged (e.g., 8 hours/day):
      M   T   W   TH  F   SAT   SUN
   b. Hours of Discharge (e.g., 9 a.m. to 5 p.m.):
      M   T   W   TH  F   SAT   SUN
   c. Peak hourly flow rate (GPD)
   d. Maximum daily flow rate (GPD)
   e. Annual daily average (GPD)

3. If batch discharge occurs or will occur, indicate:
   [New facilities may estimate]
   a. Number of batch discharges per day
   b. Average discharge per batch (GPD)
   c. Time of batch discharges at (days of week) (hours of day)
   d. Flow rate gallons/minute
   e. Percent of total discharge
4. Schematic Flow Diagram - For each major activity in which wastewater is or will be generated, draw a diagram of the flow of materials, products, water, and wastewater from the start of the activity to its completion, showing all unit processes. Indicate which processes use water and which generate wastestreams. Include the average daily volume and maximum daily volume of each wastestream [new facilities may estimate]. If estimates are used for flow data this must be indicated. Number each unit process having wastewater discharges to the community sewer. Use these numbers when showing this unit processes in the building layout in Section H. This drawing must be certified by a State Registered Professional Engineer.
Facilities that checked activities in question 1 of Section B are considered Categorical Industrial Users and should skip to question 6.

5. For Non-Categorical Users Only: List average wastewater discharge, maximum discharge, and type of discharge (batch, continuous, or both), for each plant process. Include the reference number from the process schematic that corresponds to each process. [New facilities should provide estimates for each discharge].

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<tr>
<th>No.</th>
<th>Process Description</th>
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**ANSWER QUESTIONS 6 & 7 ONLY IF YOU ARE SUBJECT TO CATEGORICAL PRETREATMENT STANDARDS**

6. For Categorical Users: Provide the wastewater discharge flows for each of your processes or proposed processes. Include the reference number from the process schematic that corresponds to each process. [New facilities should provide estimates for each discharge].

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<th>Regulated Process</th>
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9/15/89
7. For Categorical Users Subject To Total Toxic Organic (TTO) Requirements:

Provide the following (TTO) information.

a. Does (or will) this facility use any of the toxic organics that are listed under the TTO standard of the applicable categorical pretreatment standards published by EPA?

[ ] Yes
[ ] No

b. Has a baseline monitoring report (BMR) been submitted which contains TTO information?

[ ] Yes
[ ] No

c. Has a toxic organics management plan (TOMP) been developed?

[ ] Yes, (Please attach a copy)
[ ] No

8. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current: Flow Metering [ ] Yes [ ] No [ ] N/A
Sampling Equipment [ ] Yes [ ] No [ ] N/A

Planned: Flow Metering [ ] Yes [ ] No [ ] N/A
Sampling Equipment [ ] Yes [ ] No [ ] N/A

If so, please indicate the present or future location of this equipment on the sewer schematic and describe the equipment below:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

9. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics? Consider production processes as well as air or water pollution treatment processes that may affect the discharge.

[ ] Yes
[ ] No, (skip question 10)
10. Briefly describe these changes and their effects on the wastewater volume and characteristics: (Attach additional sheets if needed.)

11. Are any materials or water reclamation systems in use or planned?

[ ] Yes
[ ] No, (skip question 12)

12. Briefly describe recovery process, substance recovered, percent recovered, and the concentration in the spent solution. Submit a flow diagram for each process: (Attach additional sheets if needed.)

SECTION F - CHARACTERISTICS OF DISCHARGE

All current industrial users are required to submit monitoring data on all pollutants that are regulated specific to each process. Use the tables provided in this section to report the analytical results. DO NOT LEAVE BLANKS. For all other (nonregulated) pollutants, indicate whether the pollutant is known to be present (P), suspected to be present (S), or known not to be present (O), by placing the appropriate letter in the column for average reported values. Indicate on either the top of each table, or on a separate sheet, if necessary, the sample location and type of analysis used. Be sure methods conform to 40 CFR Part 136; if they do not, indicate what method was used.

New dischargers should use the table to indicate what pollutants will be present or are suspected to be present in proposed wastestreams by placing a P (expected to be present), S (may be present), or O (will not be present) under the average reported values.
## APPENDIX E

### SAMPLE PERMIT APPLICATION FORM

Page 11 of 24

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Detection Level Used</th>
<th>Maximum Daily Value</th>
<th>Average of Analyses</th>
<th>Number of Analyses</th>
<th>Units</th>
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SECTION C - TREATMENT

1. Is any form of wastewater treatment (see list below) practiced at this facility?
   - : Yes
   - : No

2. Is any form of wastewater treatment (or changes to a existing wastewater treatment) planned for this facility within the next three years?
   - : Yes, describe: ______________________
   - : No

3. Treatment devices or processes used or proposed for treating wastewater or sludge (check as many as appropriate).
   - Air flotation
   - Centrifuge
   - Chemical precipitation
   - Chlorination
   - Cyclone
   - Filtration
   - Flow equalization
   - Grease or oil separation, type: ____________
   - Grease trap
   - Grinding filter
   - Grit removal
   - Ion exchange
   - Neutralization, pH correction
   - Ozonation
   - Reverse osmosis
   - Screen
   - Sedimentation
   - Septic tank
   - Solvent separation
   - Spill protection
   - Sump
   - Biological treatment, type: ________________
   - Rainwater diversion or storage
   - Other chemical treatment, type: ________________
   - Other physical treatment, type: ________________
   - Other, type: _____________________
4. Description

Describe the pollutant loadings, flow rates, design capacity, physical size, and operating procedures of each treatment facility checked above.

5. Attach a process flow diagram for each existing treatment system. Include process equipment, by-products, by-product disposal method, waste and by-product volumes, and design and operating conditions.

6. Describe any changes in treatment or disposal methods planned or under construction for the wastewater discharge to the sanitary sewer. Please include estimated completion dates.

7. Do you have a treatment operator? [ ] Yes [ ] No

(if Yes,) Name: _____________________________
Title: _____________________________
Phone: _____________________________
Full time: _______ (specify hours)
Part time: _______ (specify hours)

8. Do you have a manual on the correct operation of your treatment equipment? [ ] Yes [ ] No

9. Do you have a written maintenance schedule for your treatment equipment? [ ] Yes [ ] No
SECTION H - FACILITY OPERATIONAL CHARACTERISTICS

1. Shift Information

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2. Indicate whether the business activity is:

[ ] Continuous through the year, or
[ ] Seasonal - Circle the months of the year during which the business activity occurs:

J F M A M J J A S O N D

COMMENTS: ____________________________________________________________

3. Indicate whether the facility discharge is:

[ ] Continuous through the year, or
[ ] Seasonal - Circle the months of the year during which the business activity occurs:

J F M A M J J A S O N D

COMMENTS: ____________________________________________________________
4. Does operation shut down for vacation, maintenance, or other reasons?

[ ] Yes, indicate reasons and period when shutdown occurs:

[ ] No

5. List types and amounts (mass or volume per day) of raw materials used or planned for use (attach list if needed):

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

6. List types and quantity of chemicals used or planned for use (attach list if needed). Include copies of Manufacturer's Safety Data Sheets (if available) for all chemicals identified:

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<tr>
<th>Chemical</th>
<th>Quantity</th>
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Building Layout - Draw to scale the location of each building on the premises. Show map orientation and location of all water meters, storm drains, numbered unit processes (from schematic flow diagram), public sewers, and each facility sewer line connected to the public sewers. Number each sewer and show existing and proposed sampling locations. This drawing must be certified by a State Registered Professional Engineer.

A blueprint or drawing of the facilities showing the above items may be attached in lieu of submitting a drawing on this sheet.
SECTION I - SPILL PREVENTION

1. Do you have chemical storage containers, bins, or ponds at your facility? [ ] Yes [ ] No

   If yes, please give a description of their location, contents, size, type, and frequency and method of cleaning. Also indicate in a diagram or comment on the proximity of these containers to a sewer or storm drain. Indicate if buried metal containers have cathodic protection.

2. Do you have floor drains in your manufacturing or chemical storage area(s)? [ ] Yes [ ] No If yes, where do they discharge to?

3. If you have chemical storage containers, bins, or ponds in manufacturing area, could an accidental spill lead to a discharge to: (check all that apply).

   [ ] an onsite disposal system
   [ ] public sanitary sewer system (e.g. through a floor drain)
   [ ] storm drain
   [ ] to ground
   [ ] other, specify:
   [ ] not applicable, no possible discharge to any of the above routes

4. Do you have an accidental spill prevention plan (ASPP) to prevent spills of chemicals or slug discharges from entering the Control Authority's collection systems?

   [ ] Yes - [Please enclose a copy with the application]
   [ ] No
   [ ] N/A, Not applicable since there are no floor drains and/or the facility discharge(s) only domestic wastes.

5. Please describe below any previous spill events and remedial measures taken to prevent their reoccurrence.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

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SECTION J - NON-DISCHARGED WASTES

1. Are any waste liquids or sludges generated and not disposed of in the sanitary sewer system?
   [ ] Yes, please describe below
   [ ] No, skip the remainder of Section J.

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<th>Waste Generated</th>
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2. Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site.

3. If any of your wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.

4. If an outside firm removes any of the above checked wastes, state the name(s) and address(es) of all waste haulers:
   a. ___________________________  b. ___________________________
      ___________________________  ___________________________
      ___________________________  ___________________________

   Permit No.  Permit No.
   (if applicable): _________  (if applicable): _________

5. Have you been issued any Federal, State, or local environmental permits?
   [ ] Yes
   [ ] No

   If yes, please list the permit(s):
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
   _______________________________________________________
SECTION K - AUTHORIZED SIGNATURES

Compliance certification:

1. Are all applicable Federal, State, or local pretreatment standards and requirements being met on a consistent basis?
   
   Yes [ ] No [ ] Not yet discharging [ ]

2. If No:

   a. What additional operations and maintenance procedures are being considered to bring the facility into compliance? Also, list additional treatment technology or practice being considered in order to bring the facility into compliance.

   b. Provide a schedule for bringing the facility into compliance. Specify major events planned along with reasonable completion dates. Note that if the Control Authority issues a permit to the applicant, it may establish a schedule for compliance different from the one submitted by the facility.

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<th>Milestone Activity</th>
<th>Completion Date</th>
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9/15/89
Authorized Representative Statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name(s)   Title

Signature   Date   Phone
INSTRUCTIONS TO FILL OUT WASTEWATER DISCHARGE PERMIT APPLICATION

All questions must be answered. DO NOT LEAVE BLANKS. If you answer "no" to question E.1., you may skip to Section I. Otherwise, if a question is not applicable, indicate so on the form. Instructions to some questions on the permit application are given below.

SECTION A - INSTRUCTIONS (GENERAL INFORMATION)

1. Enter the facility's official or legal name. Do not use a colloquial name.
   a. Operator Name: Give the name, as it is legally referred to, of the person, firm, public organization, or any other entity which operates the facility described in this application. This may or may not be the same name as the facility.
   b. Indicate whether the entity which operates the facility also owns it by marking the appropriate box:
      (i) If the response is "No", clearly indicate the operator's name and address and submit a copy of the contract and/or other documents indicating the operator's scope of responsibility for the facility.

2. Provide the physical location of the facility that is applying for a discharge permit.

3. Provide the mailing address where correspondence from the Control Authority may be sent.

4. Provide all the names of the authorized signatories for this facility for the purposes of signing all reports. The designated signatory is defined as:
   a. A responsible corporate officer, if the Industrial User submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:
      (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
(ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. A general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship respectively.

c. The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal, State, or local governmental entity, or their agents.

d. A duly authorized representative of the individual designated in paragraph (a), (b), or (c) of this section if:

(i) the authorization is made in writing by the individual described in paragraph (a), (b), or (c);

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(iii) the written authorization is submitted to the City.

e. If an authorization under paragraph (d) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of paragraph (d) of this section must be submitted to the City prior to or together with any reports to be signed by an authorized representative.

5. Provide the name of a person who is thoroughly familiar with the facts reported on this form and who can be contacted by the Control Authority (e.g., the plant manager).
SECTION B - INSTRUCTIONS (BUSINESS OPERATIONS)

1. Check off all operations that occur or will occur at your facility. If you have any questions regarding how to categorize your business activity, contact the Control Authority for technical guidance.

3. For all processes found on the premises, indicate the Standard Industrial Classification (SIC) Code Number, as found in the most recent Edition of Standard Industrial Classification Manual prepared by the Executive Office of the President, Office of Management and Budget. This document is available from the Government Printing Office in Washington D.C., or in San Francisco, California. DO NOT USE PREVIOUS EDITIONS OF THE MANUAL. Copies of the manual are also available at most public libraries.

4. List the types of products, giving the common or brand name and the proper or scientific name. Enter from your records the average and maximum amounts produced daily for each operation for the previous calendar year, and the estimated total daily production for this calendar year. Be sure to specify the daily units of production. Attach additional pages as necessary.

SECTION C - INSTRUCTIONS (WATER SUPPLY)

4. Provide daily average water usage within the facility. Contact cooling water is cooling water that during the process comes into contact with process materials, thereby becoming contaminated. Non-contact cooling water does not come into contact with process materials. Sanitary water includes only water used in restrooms. Plant and equipment washdown includes floor washdown. If sanitary flow is not metered, provide an estimate based on 15 gallons per day (gpd) for each employee.

SECTION E - INSTRUCTIONS (WASTEWATER DISCHARGE INFORMATION)

1. If you answer "no" to this question, skip to Section I, otherwise complete the remainder of the application.
4. A schematic flow diagram is required to be completed and certified for accuracy by a State registered professional engineer. Assign a sequential reference number to each process starting with No. 1. An example of a drawing is shown below in Figure 1. To determine your average daily volume and maximum daily volume of wastewater flow, you may have to read water meters, sewer meters, or make estimates of volumes that are not directly measurable.

FIGURE 1. SCHEMATIC FLOW DIAGRAM
APPENDIX E  SAMPLE PERMIT APPLICATION FORM

5. **Non-categorical users** should report average daily and maximum daily wastewater flows from each process, operation, or activity present at the facility. Categorical users should skip to question 6.

6. **Categorical users** should report average daily and maximum daily wastewater flows from every regulated, unregulated, and dilution process. A regulated wastestream is defined as wastewater from an industrial process that is regulated for a particular pollutant by a categorical pretreatment standard. Unregulated wastestreams are wastestreams from an industrial process that are not regulated by a categorical pretreatment standard and are not defined as a dilution wastestream. Dilution wastestreams include sanitary wastewater, boiler blowdown, noncontact cooling water or blowdown, stormwater streams, demineralizer backwash streams and process wastestreams from certain industrial subcategories exempted by EPA from categorical pretreatment standards. [For further details see 40 CFR 403.6 (e).]

7. Total Toxic Organics (TTO) means the sum of the masses or concentrations of specific toxic organic compounds found in the industrial user's process discharge. The individual organic compounds that make up the TTO value and the minimum reportable quantities differ according to the particular industrial category [see applicable categorical pretreatment standards, 40 CFR Parts 405-471].

SECTION H - INSTRUCTIONS (FACILITY OPERATIONAL CHARACTERISTICS)

2. Indicate whether the business activity is continuous throughout the year or if it is seasonal. If the activity is seasonal, circle the months of the year during which the discharge occurs. Make any comments you feel are required to describe the variation in operation of your business activity.

4. Indicate any shut downs in operation which may occur during the year and indicate the reasons for shutdown.

5. Provide a listing of all primary raw materials used (or planned) in the facility's operations. Indicate amount of raw material used in daily units.

6. Provide a listing of all chemicals used (or planned) in the facility's operations. Indicate the amount used or planned in daily units. Avoid the use of trade names of chemicals. If trade names are used, also provide chemical compounds. Provide copies of all available manufacturer's safety data sheets for all chemicals identified.
7. A building layout or plant site plan of the premises is required to be completed and certified for accuracy by a State registered professional engineer. Approved building plans may be substituted. An arrow showing North as well as the map scale must be shown. The location of each existing and proposed sampling location and facility sewer line must be clearly identified as well as all sanitary and wastewater drainage plumbing. Number each unit process discharging wastewater to the public sewer. Use the same numbering system shown in Figure 1, the schematic flow diagram. An example of the drawing required is shown below.

FIGURE 2. BUILDING LAYOUT
SECTION I - INSTRUCTIONS (SPILL PREVENTION)

5. Describe how the spill occurred, what was spilled, when the spill happened, where it occurred, how much was spilled, and whether or not the spill reached the sewer. Also explain what measures have been taken to prevent a reoccurrence or what measures have been taken to limit damage if another spill occurs.

SECTION J - INSTRUCTIONS (NON-DISCHARGED WASTES)

1. For wastes not discharged to the Control Authority's sewer, indicate types of waste generated, amount generated, the way in which the waste is disposed (e.g. incinerated, hauled, etc.), and the location of disposal.

2. Onsite disposal system could be a septic system, lagoon, holding pond (evaporative-type), etc.

5. Types of permits could be: air, hazardous waste, underground injection, solid waste, NPDES (for discharges to surface water), etc.

SECTION K - INSTRUCTIONS (AUTHORIZED SIGNATURES)

See instructions for question 4 in Section A, for a definition of an authorized representative.
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Name of Responsible Official at Industry
Title
Name of Industrial User
Mailing Address

RE: Issuance of Industrial User Permit to [name of the Industrial User] by
the [name of Control Authority].
Permit No. [cite permit number].

Dear [name of Responsible Official at Industry]:

Your application for an industrial user pretreatment permit has been reviewed
and processed in accordance with [cite specific section of ordinance].

The enclosed [cite permit number] covers the wastewater discharged from the
facility located at [Location Address] into the [name of Control Authority] sewer system. All discharges from this facility and actions and reports
relating thereto shall be in accordance with the terms and conditions of this
permit.

If you wish to appeal or challenge any conditions imposed in this permit, a
petition shall be filed for modification or reissuance of this permit in
accordance with the requirements of [cite specific section of ordinance].
within 30 days of your receipt of this correspondence. Pursuant to [cite
specific section of ordinance], failure to petition for reconsideration of the
permit within the allotted time is deemed a waiver by the permittee of his
right to challenge the terms of this permit.

[Official Seal of Control Authority]

By: [Signature] 
[Name and Title]

Issued this [Date] day of [Month], 19
INDUSTRIAL USER PERMIT

In accordance with the provisions of [cite specific section of ordinance]

Industrial User’s Name
Location address
Mailing address (optional)

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the [name of Control Authority] sewer system in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, State, and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the [name of Control Authority] sewer use ordinance.

This permit shall become effective on [Date] and shall expire at midnight on [Date].

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal permit in accordance with the requirements of [cite specific section of ordinance], a minimum of 90 days prior to the expiration date.

[Official Seal of Control Authority]

By: [Signature]________________
Superintendent

Issued this [Date] day of [Month], 19_
PART 1 - EFFLUENT LIMITATIONS

A. During the period of [effective date of permit] to [expiration date of permit] the permittee is authorized to discharge process wastewater to the [name of Control Authority] sewer system from the outfalls listed below.

Description of outfalls:

<table>
<thead>
<tr>
<th>Outfall</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>[The permit writer must clearly identify the outfalls using brief detailed narrative descriptions and diagrams as necessary]</td>
</tr>
<tr>
<td>002</td>
<td></td>
</tr>
</tbody>
</table>

B. During the period of [Date] to [Date] the discharge from outfall 001 shall not exceed the following effluent limitations. Effluent from this outfall consists of [the permit writer should provide a description of the discharges which are combined at this sampling location].

## EFFLUENT LIMITATIONS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Daily maximum (mg/l)</th>
<th>Monthly average (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(gpd)</td>
<td>(gpd)</td>
</tr>
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<td></td>
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<td></td>
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</tbody>
</table>

[The permit writer must determine the applicable local, State, and Federal standards that apply to the permittee and specify the most stringent applicable effluent limits for each regulated pollutant.]

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C. During the period of [Date] to [Date] the effluent from outfall QQ2 shall be of domestic or nonprocess wastewater only and shall comply with [cite specific section of ordinance containing prohibited discharges and local limits].

D. [The following specific discharge prohibitions may appear in the Effluent Limits section or in the Standard Conditions section of the permit]. The permittee shall not discharge wastewater containing any of the following substances from any of the outfalls:

1. Fats, wax, grease, or oils of petroleum origin, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between 32 degrees F (0 degrees C) and 140 degrees F (60 degrees C);

2. Any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquids, solids or gases;

3. Any effluent having a temperature higher than 104 degrees F (40 degrees C);

4. Any ashes, hair, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch, manure, or any other solids capable of passing through [cite mesh screen size] or solid or viscous substances capable of causing obstructions or other interferences with proper operation of the sewer system;

5. Any pollutant, including oxygen demanding pollutants (BOD etc.) at flow rate and/or concentration which will cause the pollutant to pass through to the receiving waters or interfere with the [name of Control Authority] wastewater treatment facility. For the purpose of this section, the terms "pass through" and "interference" have the same definitions as appear in the City ordinance [cite specific section of ordinance].

E. All discharges shall comply with all other applicable laws, regulations, standards, and requirements contained in [cite specific section of ordinance] and any applicable State and Federal pretreatment laws, regulations, standards, and requirements including any such laws, regulations, standards, or requirements that may become effective during the term of this permit.
PART 2 - MONITORING REQUIREMENTS

A. From the period beginning on the effective date of the permit until [Date], the permittee shall monitor outfall [cite outfall number] for the following parameters, at the indicated frequency:

[The following parameters are an example of what might be included in this section of the permit. The permit writer must include all parameters identified in Part 18.]

<table>
<thead>
<tr>
<th>Sample Parameter (units)</th>
<th>Measurement Location</th>
<th>Frequency</th>
<th>Sample Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow (gpd)</td>
<td>See note</td>
<td>Continuous</td>
<td>Meter²</td>
</tr>
<tr>
<td>BOD</td>
<td>See note</td>
<td>1/Year</td>
<td>Grab</td>
</tr>
<tr>
<td>TSS</td>
<td>See note</td>
<td>1/Year</td>
<td>Grab</td>
</tr>
<tr>
<td>Arsenic</td>
<td>See note</td>
<td>1/Year</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Cadmium (mg/l)</td>
<td>See note</td>
<td>1/Month</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Chromium (mg/l)</td>
<td>See note</td>
<td>1/Week</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Copper (mg/l)</td>
<td>See note</td>
<td>1/Year</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Lead (mg/l)</td>
<td>See note</td>
<td>1/Month</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Mercury (mg/l)</td>
<td>See note</td>
<td>1/Year</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Nickel (mg/l)</td>
<td>See note</td>
<td>1/Month</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Zinc (mg/l)</td>
<td>See note</td>
<td>1/Week</td>
<td>24-hr Composite³</td>
</tr>
<tr>
<td>Trichlorophenol (mg/l)²</td>
<td>See note</td>
<td>1/Quarter²</td>
<td>Grab</td>
</tr>
<tr>
<td>Pentachlorophenol (mg/l)²</td>
<td>See note</td>
<td>1/Quarter²</td>
<td>Grab</td>
</tr>
<tr>
<td>pH</td>
<td>See note</td>
<td>Continuous</td>
<td>Meter⁶</td>
</tr>
</tbody>
</table>

[The permit writer needs to include a diagram or narrative description of sample locations.]

² Daily flows are to be recorded from the permittee's flow meter.

³ Definitions of sample types. [The permit writer must determine the type of composite sample (time or flow proportioned) and the sampling duration (i.e., 8-hour, 12-hour, 24-hour) that is most appropriate for the industrial user, and define it either here or in the standard conditions.]
APPENDIX F  SAMPLE INDUSTRIAL USER PERMIT

4 The permittee may choose to submit a certification statement annually due by [Date] stating that chlorophenolic containing biocides and slimicides are not used at the facility rather than monitoring for trichlorophenol and pentachlorophenol. [This provision applies only if the user is subject to the pulp and paper categorical standards].

5 Quarterly samples are to be analyzed once every three (3) months and shall consist of three (3) samples collected in a (7) week period.

6 pH will be monitored and recorded continuously on the permittee’s pH meter.

B. All handling and preservation of collected samples and laboratory analyses of samples shall be performed in accordance with 40 CFR Part 136 and amendments thereto unless specified otherwise in the monitoring conditions of this permit. [As an alternative, this requirement may be put in the standard conditions section.]

PART 3 - REPORTING REQUIREMENTS

A. Monitoring Reports

Monitoring results obtained shall be summarized and reported on an Industrial User Monitoring Report Form once per month. The reports are due on the [specify date] day of each month. The first report is due on [Date]. The report shall indicate the nature and concentration of all pollutants in the effluent for which sampling and analyses were performed during the calendar month preceding the submission of each report including measured maximum and average daily flows.

B. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures prescribed in 40 CFR Part 136 or amendments thereto, or otherwise approved by EPA or as specified in this permit, the results of such monitoring shall be included in any calculations of actual daily maximum or monthly average pollutant discharge and results shall be reported in the monthly report submitted to the [name of Control Authority]. Such increased monitoring frequency shall also be indicated in the monthly report. [As an alternative, this requirement may be put in the standard conditions section.]
C. Automatic Resampling

If the results of the permittee's wastewater analysis indicates that a violation of this permit has occurred, the permittee must:

1. Inform the [name of Control Authority] of the violation within 24 hours; and

2. Repeat the sampling and pollutant analysis and submit, in writing, the results of this second analysis within 30 days of the first violation.

D. Accidental Discharge Report

1. The permittee shall notify the [name of Control Authority] immediately upon the occurrence of an accidental discharge of substances prohibited by [cite specific section of ordinance] or any slug loads or spills that may enter the public sewer. During normal business hours the [name of Control Authority] should be notified by telephone at [telephone number]. At all other times, the [name of Control Authority] should be notified by telephone at either [telephone number] or [telephone number] after 5 p.m. Monday - Friday or weekends and holidays. The notification shall include location of discharge, date and time thereof, type of waste, including concentration and volume, and corrective actions taken. The permittee's notification of accidental releases in accordance with this section does not relieve it of other reporting requirements that arise under local, State, or Federal laws.

Within five days following an accidental discharge, the permittee shall submit to the [name of Control Authority] a detailed written report. The report shall specify:

a. Description and cause of the upset, slug load or accidental discharge, the cause thereof, and the impact on the permittee's compliance status. The description should also include location of discharge, type, concentration and volume of waste.

b. Duration of noncompliance, including exact dates and times of non-compliance and, if the noncompliance is continuing, the time by which compliance is reasonably expected to occur.
c. All steps taken or to be taken to reduce, eliminate, and/or prevent recurrence of such an upset, slug load, accidental discharge, or other conditions of noncompliance.

[As an alternative, this requirement may be put in the standard conditions section.]

E. All reports required by this permit shall be submitted to the [name of Control Authority] at the following address:

[Name of Control Authority]
Attn: [Name of Pretreatment Coordinator]
Address

PART 4 - SPECIAL CONDITIONS

SECTION 1 - ADDITIONAL/SPECIAL MONITORING REQUIREMENTS.

[The permit writer needs to include any additional or special monitoring requirements that are applicable to the permittee. Examples are provided below.]

Examples:

A. One time monitoring for specific pollutants to verify absence (e.g., The permittee shall submit by [Date] sampling data for pentachlorophenol and trichlorophenol).

B. Biomonitoring or other toxicity to determine the toxicity of the discharge.

C. Development of sludge disposal plan, slug loading control plan, or industrial user management practices.

D. Additional monitoring of pollutants that are limited in the permit in response to noncompliance.

SECTION 2 - REOPENER CLAUSE

[The permit writer should describe here any causes for modifying the permit arising out of facts that are not common to all industrial users which will or are likely to occur during its effective period. Examples are set out below. (The more general reasons for modifying a permit may be stated in the standard conditions section.)]
Examples:

A. This permit may be reopened and modified to incorporate any new or revised requirements contained in a National categorical pretreatment standard promulgated for the pesticide industrial category (40 CFR Part 455).

B. This permit may be reopened and modified to incorporate any new or revised requirements resulting from the [name of Control Authority] reevaluation of its local limit for copper.

C. This permit may be reopened and modified to incorporate any new or revised requirements developed by [name of Control Authority] as are necessary to ensure POTW compliance with applicable sludge management requirements promulgated by EPA (40 CFR 503).

SECTION 3 - COMPLIANCE SCHEDULE [Sample Compliance Schedule]

A. The permittee shall accomplish the following tasks in the designated time period:

<table>
<thead>
<tr>
<th>Event</th>
<th>No Later Than</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New wastewater pretreatment plant design completed</td>
<td>[Date]</td>
</tr>
<tr>
<td>2. Equipment and materials ordered</td>
<td>[Date]</td>
</tr>
<tr>
<td>3. Develop, and submit a copy to the [name of Control Authority] slug loading control plan to eliminate or minimize the accidental spill or slug discharge of pollutants into the sewer system</td>
<td>[Date]</td>
</tr>
<tr>
<td>4. Implement the slug loading control plan</td>
<td>[Date]</td>
</tr>
<tr>
<td>5. Complete installation of wastewater pretreatment plant</td>
<td>[Date]</td>
</tr>
<tr>
<td>6. Obtain full pretreatment plant operational status and achieve full compliance</td>
<td>[Date]</td>
</tr>
</tbody>
</table>
B. Compliance Schedule Reporting

No later than 14 days following each date in the above schedule, the permittee shall submit to the [name of Control Authority] a report including, at 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 the increment of progress, the reasons for delay, and the steps being taken to return the project to the schedule established.

PART 5 - STANDARD CONDITIONS

[The reader is referred to Appendix G for a list of standard conditions which may be placed in industrial user permits.]
APPENDIX G

SAMPLE STANDARD CONDITIONS FOR PERMITS
APPENDIX G

SAMPLE STANDARD CONDITIONS FOR PERMITS

[This Appendix is to be used in conjunction with the sample permit in Appendix F. The Control Authority should select (and modify if necessary) the standard conditions listed here which best suit its needs.]

SECTION A. GENERAL CONDITIONS AND DEFINITIONS

1. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Failure to comply with the requirements of this permit may be grounds for administrative action, or enforcement proceedings including civil or criminal penalties, injunctive relief, and summary abatements.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact to the public treatment plant or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Permit Modification

This permit may be modified for good causes including, but not limited to, the following:

   a. To incorporate any new or revised Federal, State, or local pretreatment standards or requirements

   b. Material or substantial alterations or additions to the discharger's operation processes, or discharge volume or character which were not considered in drafting the effective permit
c. A change in any condition in either the industrial user or the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge

d. Information indicating that the permitted discharge poses a threat to the Control Authority's collection and treatment systems, POTW personnel or the receiving waters

e. Violation of any terms or conditions of the permit

f. Misrepresentation or failure to disclose fully all relevant facts in the permit application or in any required reporting

g. Revision of or a grant of variance from such categorical standards pursuant to 40 CFR 403.13, or

h. To correct typographical or other errors in the permit

i. To reflect transfer of the facility ownership and/or operation to a new owner/operator

j. Upon request of the permittee, provided such request does not create a violation of any applicable requirements, standards, laws, or rules and regulations.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5. Permit Termination

This permit may be terminated for the following reasons:

a. Falsifying self-monitoring reports

b. Tampering with monitoring equipment

c. Refusing to allow timely access to the facility premises and records

d. Failure to meet effluent limitations

e. Failure to pay fines

f. Failure to pay sewer charges

g. Failure to meet compliance schedules.

6. Permit Appeals

The permittee may petition to appeal the terms of this permit within thirty (30) days of the notice.
This petition must be in writing; failure to submit a petition for review shall be deemed to be a waiver of the appeal. In its petition, the permittee must indicate the permit provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to be placed in the permit.

The effectiveness of this permit shall not be stayed pending a reconsideration by the Board. If, after considering the petition and any arguments put forth by the Superintendent, the Board determines that reconsideration is proper, it shall remand the permit back to the Superintendent for reissuance. Those permit provisions being reconsidered by the Superintendent shall be stayed pending reissuance.

A Board of Directors' decision not to reconsider a final permit shall be considered final administrative action for purposes of judicial review. The permittee seeking judicial review of the Board's final action must do so by filing a complaint with the [name of court] for [name of County] within [insert appropriate State Statute of Limitations].

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any violation of Federal, State, or local laws or regulations.

8. Limitation on Permit Transfer

Permits may be reassigned or transferred to a new owner and/or operator with prior approval of the Superintendent:

a. The permittee must give at least thirty (30) days advance notice to the Superintendent

b. The notice must include a written certification by the new owner which:

(i) States that the new owner has no immediate intent to change the facility's operations and processes

(ii) Identifies the specific date on which the transfer is to occur

(iii) Acknowledges full responsibility for complying with the existing permit.
9. **Duty to Reapply**

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must submit an application for a new permit at least 90 days before the expiration date of this permit. [Alternatively, this requirement may appear on the Cover Page.]

10. **Continuation of Expired Permits**

An expired permit will continue to be effective and enforceable until the permit is reissued if:

a) The permittee has submitted a complete permit application at least ninety (90) days prior to the expiration date of the user's existing permit.

b) The failure to reissue the permit, prior to expiration of the previous permit, is not due to any act or failure to act on the part of the permittee.

11. **Dilution**

The permittee shall not increase the use of potable or process water or, in any way, attempt to dilute an effluent as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

12. **Definitions**

a) **Daily Maximum** - The maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

b) **Composite Sample** - A sample that is collected over time, formed either by continuous sampling or by mixing discrete samples. The sample may be composited either as a *time composite sample*: composed of discrete sample aliquots collected in one container at constant time intervals providing representative samples irrespective of stream flow; or as a *flow proportional composite sample*: collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots. [The permit writer should determine the most appropriate composite sampling method to be used by the permittee.]
APPENDIX G

SAMPLE STANDARD CONDITIONS FOR PERMITS

c) **Grab Sample** - An individual sample collected in less than 15 minutes, without regard for flow or time.

d) **Instantaneous Maximum Concentration** - The maximum concentration allowed in any single grab sample.

e) **Cooling Water** -

(1) Uncontaminated: Water used for cooling purposes only which has no direct contact with any raw material, intermediate, or final product and which does not contain a level of contaminants detectably higher than that of the intake water.

(2) Contaminated: Water used for cooling purposes only which may become contaminated either through the use of water treatment chemicals used for corrosion inhibitors or biocides, or by direct contact with process materials and/or wastewater.

f) **Monthly Average** - The arithmetic mean of the values for effluent samples collected during a calendar month or specified 30 day period (as opposed to a rolling 30 day window).

g) **Weekly Average** - The arithmetic mean of the values for effluent samples collected over a period of seven consecutive days.

h) **Bi-Weekly** - Once every other week.

i) **Bi-Monthly** - Once every other month.

j) **Upset** - Means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee, excluding such factors as operational error, improperly designed or inadequate treatment facilities, or improper operation and maintenance or lack thereof.

k) **Bypass** - Means the intentional diversion of wastes from any portion of a treatment facility.

13. **General Prohibitive Standards**

The permittee shall comply with all the general prohibitive discharge standards in [reference specific section of ordinance]. Namely, the industrial user shall not discharge wastewater to the sewer system:

a) Having a temperature higher than 104 degrees F (40 degrees C);

b) Containing more than 100 ppm by weight of fats, oils, and grease;

9/15/89
c) Containing any gasoline, benzene, naptha, fuel oil or other flammable or explosive liquids, solids or gases; and in no case pollutants with a closed cup flashpoint of less than one hundred forty (140) degrees Fahrenheit (60°C), or pollutants which cause an exceedance of 10 percent of the Lower Explosive Limit (LEL) at any point within the POTW.

d) Containing any garbage that has not been ground by household type or other suitable garbage grinders;

e) Containing any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch, manure, or any other solids or viscous substances capable of causing obstructions or other interferences with proper operation of the sewer system;

f) Having a pH lower than 5.0 or higher than 11.0, or having any other corrosive property capable of causing damage or hazards to structures, equipment or personnel of the sewer system;

g) Containing toxic or poisonous substances in sufficient quantity to injure or interfere with any wastewater treatment process, to constitute hazards to humans or animals, or to create any hazard in waters which receive treated effluent from the sewer system treatment plant. Toxic wastes shall include, but are not limited to wastes containing cyanide, chromium, cadmium, mercury, copper, and nickel ions;

h) Containing noxious or malodorous gases or substances capable of creating a public nuisance; including pollutants which result in the presence of toxic gases, vapors, or fumes;

i) Containing solids of such character and quantity that special and unusual attention is required for their handling;

j) Containing any substance which may affect the treatment plant’s effluent and cause violation of the NPDES permit requirements;

k) Containing any substance which would cause the treatment plant to be in noncompliance with sludge use, recycle or disposal criteria pursuant to guidelines or regulations developed under section 405 of the Federal Act, the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act or other regulations or criteria for sludge management and disposal as required by the State;

l) Containing color which is not removed in the treatment processes;

m) Containing any medical or infectious wastes;
n) Containing any radioactive wastes or isotopes; or

o) Containing any pollutant, including BOD pollutants, released at a flow rate and/or pollutant concentration which would cause interference with the treatment plant.

14. Compliance with Applicable Pretreatment Standards and Requirements

Compliance with this permit does not relieve the permittee from its obligations regarding compliance with any and all applicable local, State and Federal pretreatment standards and requirements including any such standards or requirements that may become effective during the term of this permit.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes but is not limited to: effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

Upon reduction of efficiency of operation, or loss or failure of all or part of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control its production or discharges (or both) until operation of the treatment facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a) Bypass is prohibited unless it is unavoidable to prevent loss of life, personal injury, or severe property damage or no feasible alternatives exist.
APPENDIX C
SAMPLE STANDARD CONDITIONS FOR PERMITS

b) The permittee may allow bypass to occur which does not cause effluent limitations to be exceeded, but only if it is also for essential maintenance to assure efficient operation.

c) Notification of bypass:

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior written notice, at least ten days before the date of the bypass, to the [name of Control Authority].

(2) Unanticipated bypass. The permittee shall immediately notify the [name of Control Authority] and submit a written notice to the POTW within 5 days. This report shall specify:

(i) A description of the bypass, and its cause, including its duration,

(ii) Whether the bypass has been corrected; and

(iii) The steps being taken or to be taken to reduce, eliminate and prevent a reoccurrence of the bypass.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in accordance with section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act. [The Control Authority should add citations to local or State regulations that may apply]

SECTION C. MONITORING AND RECORDS

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water or substance. All equipment used for sampling and analysis must be routinely calibrated, inspected and maintained to ensure their accuracy. Monitoring points shall not be changed without notification to and the approval of the [name of Control Authority].
2. **Flow Measurements**

If flow measurement is required by this permit, the appropriate flow measurement devices and methods consistent with approved scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. **Analytical Methods to Demonstrate Continued Compliance**

All sampling and analysis required by this permit shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, otherwise approved by EPA, or as specified in this permit.

4. **Additional Monitoring by the Permittee**

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures identified in Section C.3, the results of this monitoring shall be included in the permittee's self-monitoring reports.

5. **Inspection and Entry**

The permittee shall allow the [name of Control Authority], or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a) Enter upon the permittee’s premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;
- d) Sample or monitor, for the purposes of assuring permit compliance, any substances or parameters at any location; and
- e) Inspect any production, manufacturing, fabricating, or storage area where pollutants, regulated under the permit, could originate, be stored, or be discharged to the sewer system.

9/15/89
6. **Retention of Records**

   a) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application.

   This period may be extended by request of the [name of Control Authority] at any time.

   b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the [name of Control Authority] shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

7. **Record Contents**

   Records of sampling and analyses shall include:

   a) The date, exact place, time, and methods of sampling or measurements, and sample preservation techniques or procedures;

   b) Who performed the sampling or measurements;

   c) The date(s) analyses were performed;

   d) Who performed the analyses;

   e) The analytical techniques or methods used; and

   f) The results of such analyses.

8. **Falsifying Information**

   Knowingly making any false statement on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, is a crime and may result in the imposition of criminal sanctions and/or civil penalties.
SECTION D. ADDITIONAL REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give notice to the [name of Control Authority] 90 days prior to any facility expansion, production increase, or process modifications which results in new or substantially increased discharges or a change in the nature of the discharge. [Alternatively, this requirement may appear in Part 3, Reporting Requirements, of the permit.]

2. Anticipated Noncompliance

The permittee shall give advance notice to the [name of Control Authority] of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Automatic Resampling

If the results of the permittee's wastewater analysis indicates a violation has occurred, the permittee must notify the [name of Control Authority] within 24 hours of becoming aware of the violation and repeat the sampling and pollutant analysis and submit, in writing, the results of this repeat analysis within 30 days after becoming aware of the violation.

4. Duty to Provide Information

The permittee shall furnish to the [name of Control Authority], within [specify time] any information which the [name of Control Authority] may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also, upon request, furnish to the [name of Control Authority] within [specify time] copies of any records required to be kept by this permit.

5. Signatory Requirements [use whichever alternative best applies]

All applications, reports, or information submitted to the [name of Control Authority] must contain the following certification statement and be signed as required in Sections (a), (b), (c) or (d) below:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for
submitting false information, including the possibility of fine and imprisonment for knowing violations."

a) By a responsible corporate officer, if the Industrial User submitting the reports is a corporation. For the purpose of this paragraph, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or;

(ii) the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b) By a general partner or proprietor if the Industrial User submitting the reports is a partnership or sole proprietorship respectively.

c) The principal executive officer or director having responsibility for the overall operation of the discharging facility if the Industrial User submitting the reports is a Federal, State, or local governmental entity, or their agents.

d) By a duly authorized representative of the individual designated in paragraph (a), (b), or (c) of this section if:

(i) the authorization is made in writing by the individual described in paragraph (a), (b), or (c);

(ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the Industrial Discharge originates, such as the position of plant manager, operator of a well, or a well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company; and

(iii) the written authorization is submitted to the City.

e) If an authorization under paragraph (d) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for the environmental matters for the company, a new authorization satisfying the requirements of paragraph (d) of this section must be
submitted to the City prior to or together with any reports to be signed by an authorized representative.

6. **Operating Upsets**

Any permittee that experiences an upset in operations that places the permittee in a temporary state of noncompliance with the provisions of either this permit or with [reference specified section of ordinance] shall inform the [name of Control Authority] within 24 hours of becoming aware of the upset at [daytime telephone number] or [night time and weekend telephone number] after 5 p.m. Monday - Friday or weekends and holidays.

A written follow up report of the upset shall be filed by the permittee with the [name of Control Authority] within five days. The report shall specify:

a) Description of the upset, the cause(s) thereof and the upset’s impact on the permittee’s compliance status;

b) Duration of noncompliance, including exact dates and times of noncompliance, and if not corrected, the anticipated time the noncompliance is expected to continue; and

c) All steps taken or to be taken to reduce, eliminate and prevent recurrence of such an upset.

The report must also demonstrate that the treatment facility was being operated in a prudent and workmanlike manner.

A documented and verified operating upset shall be an affirmative defense to any enforcement action brought against the permittee for violations attributable to the upset event.

7. **Annual Publication**

A list of all industrial users which were subject to enforcement proceedings during the twelve (12) previous months shall be annually published by the [name of Control Authority] in the largest daily newspaper within its service area. Accordingly, the permittee is apprised that noncompliance with this permit may lead to an enforcement action and may result in publication of its name in an appropriate newspaper in accordance with this section.

8. **Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil and/or criminal penalties for noncompliance under [reference specific section of ordinance] or State or Federal laws or regulations.
9. Penalties for Violations of Permit Conditions

The [cite specific section of ordinance] provides that any person who violates a permit condition is subject to a civil penalty of at least [cite dollar amount] per day of such violation. Any person who willfully or negligently violates permit conditions is subject to criminal penalties of a fine of up to [cite dollar amount] per day of violation, or by imprisonment for [number] of year(s), or both. The permittee may also be subject to sanctions under State and/or Federal law.

10. Recovery of Costs Incurred

In addition to civil and criminal liability, the permittee violating any of the provisions of this permit or [reference specific section of ordinance] or causing damage to or otherwise inhibiting the [name of Control Authority] wastewater disposal system shall be liable to the [name of Control Authority] for any expense, loss, or damage caused by such violation or discharge. The [name of Control Authority] shall bill the permittee for the costs incurred by the [name of Control Authority] for any cleaning, repair, or replacement work caused by the violation or discharge. Refusal to pay the assessed costs shall constitute a separate violation of [reference specific section of ordinance].
APPENDIX H

INDUSTRIAL USER MANAGEMENT PRACTICES
Industrial user management practices are measures undertaken by industrial users to prevent or minimize the potential for release of pollutants in significant amounts to the sewer system. Industrial user management practices used by industries for preventing spills or slug loads are essentially the same as those typically used for safety, industrial hygiene, fire protection, protection against loss of product, insurance company requirements, and public relations. Industrial user management practices typically address the following sources of pollution:

- Toxic and hazardous chemical spills and leaks
- Plant site runoff
- Sludge and waste disposal
- Drainage from material storage areas
- Other "good housekeeping" practices.

Industrial user management practices are grouped into two general categories: baseline and advanced. Both baseline and advanced industrial user management practices can include the following types of management practices:

- Establishment of a **Slug Control Committee** responsible for implementation and maintenance of an industry's slug loading control plan
- Maintenance of a **material inventory system** to identify all sources and quantities of toxic and hazardous materials handled and produced within the industrial user's facilities
- Establishment of **employee training programs** to provide personnel of all levels with a complete understanding of the facility's slug loading control plan or toxic organic management plan
- Establishment of **preventive maintenance procedures** to inspect plant equipment and other systems to discover conditions that could cause production breakdowns or harmful deterioration of systems, and the
correction of such conditions through adjustment, repair, or replacement of worn parts before equipment or system failure resulting in spills

- Conducting routine visual inspections that consist of tours or patrols throughout the plant facilities to detect spills or evidence of conditions that could lead to slug loading

- Improvement of good housekeeping practices essential to the maintenance of a clean and orderly working environment

- Evaluation of the compatibility of chemicals and other materials with the containers in which they are stored, with other materials with which they are mixed, the compatibility of the container with the environment, and adjustment of material storage or handling practices accordingly

- Establishment of a security system to prevent accidental or intentional entry into the plant that could lead to a chemical release

- Use of a slug loading reporting system to maintain records for the purpose of reporting slug loading, studying slug loading recurrence, expediting mitigation or cleanup activities, and complying with legal requirements.

Baseline management practices are:

- Generally applicable to all industries
- Relatively low in cost and simple to implement
- Not directed to particular pollutant compounds

Advanced industrial user management practices, on the other hand, are used in addition to baseline management practices to provide a further level of protection for preventing and controlling chemical releases. Advanced industrial user management practices are specific to groups of toxics and hazardous substances and can be divided into the following four categories of management practices:

- Prevention practices including monitoring systems, nondestructive testing, labeling, covering or enclosing materials, equipment or process operations, and other techniques used to prevent material spills
Control Authorities may choose to require implementation of one or more of the management practices discussed above. Management practices or programs should be designed and tailored for each industrial user's individual situation. The requirements for implementation should be incorporated into the special conditions section of an industrial user's permit, as discussed in Chapter 10 of this manual. For more information on industrial user management practices, the permit writer should read the draft NPDES Best Management Practices Guidance Document, Development of Slug Loading Control Programs for Publicly-Owned Treatment Works, and Guidance Manual for Implementing Total Toxic Organic (TTO) Pretreatment Standards.
APPENDIX I

SAMPLE FACT SHEET
APPENDIX I

SAMPLE FACT SHEET

1. SYNOPSIS OF APPLICANT INFORMATION

a. Name and Address of Applicant

[Name of Industry]
1224 Anything Road
[City], NJ 12345
(222) 333-4444

b. Description of Applicant's Operation

[Name of Industry] is a manufacturer of sealed lead-acid batteries (SIC 3691). Descriptions of the specific industrial operations involved in the battery manufacturing process at [Name of Industry] have been described in four industry submittals dated February 24, 1988, January 26, 1988, and March 29, 1988. These submittals may be found in Attachment A of this document. Based on this information, a table was developed to compare the subprocesses identified by [Name of Industry] to those referenced in EPA's Battery Manufacturing Development Documents. This table may be found in Attachment B.

c. Production Data

Thus far, [Name of Industry] has submitted monthly production data for 1985, 1986, and 1987, and an estimate of production for 1988. This information may be found in Attachment C.

d. Name of Control Authority's Wastewater Treatment Plant Receiving the Wastewater

Northeast Plant

e. Description of Existing Pollution Abatement Facilities

(See Figure 1 - Attachment D)

Pipe 01: Wastestreams from the pasting area are subjected to chemical precipitation and settling and combined with wastestreams from acid mixing, acid fill, battery cooling, and qualification prior to pH adjustment and discharge to the City's sewer.

Pipe 02: Wastestreams from handwash, showers, toilets, and tech labs are discharged to the City's sewer with no treatment.
APPENDIX I

f. Description of Discharges (as reported by applicant)

The information provided by [Name of Industry], with respect to effluent characteristics, includes third and fourth quarter 1987 monitoring data (at Pipe 03), a 1987 flow diagram, and a 1985 baseline monitoring report. The 1987 monitoring reports are included in Attachment E. A review of water utility meter readings for this facility revealed a significant variance in both short and long term water use. A comparison of these records with production information did not reveal a significant correlation.

Pipe 01: 4,560 gallons per day for chemical precipitation combined with 7,100 gallons per day of other process flows prior to pH treatment and discharge to Pipe 01 (11,660 gpd).

Pipe 02: 4,000 gallons per day from sanitary wastewater sources, including handwashing, combined with 1,000 gallons per day from tech labs (5,000 gpd).

2. PROPOSED FINAL EFFLUENT LIMITATIONS

Effective no later than the effective date of this permit, and lasting until the expiration date of this permit, [Name of Industry] is authorized to discharge wastewater from Pipes 01 and 02. Pipes 01 and 02 are as identified in Figure 1, Attachment D. These discharges shall be limited as specified below:

Part 1 - Effluent Limits based on Categorical Standards (40 CFR 461.34(a)(9) Miscellaneous Wastewater Streams (PSES))
(Must be met at the combined discharges of Pipes 01 and 02.)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Mass Loading (lbs/day)</th>
<th>Concentration (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Maximum</td>
<td>Average</td>
</tr>
<tr>
<td>Flow</td>
<td>Report (MGD)</td>
<td>Report (MGD)</td>
</tr>
<tr>
<td>Total Copper</td>
<td>0.021</td>
<td>0.011</td>
</tr>
<tr>
<td>Total Lead</td>
<td>0.005</td>
<td>0.002</td>
</tr>
</tbody>
</table>
Part 2 - Effluent Limits based on Local Limits [Sewer Use Ordinance Section 99]
(Limits will be applied at the connection to the City's sewer)

Parameter | Instantaneous Maximum Mass Loading (mg/l) | Instantaneous Maximum Concentration in Any Sample (mg/l)
--- | --- | ---
Flow | Report | Report (in mgd)
Total Arsenic | Report | 1.0
Total Cadmium | Report | 1.5
Total Copper | Report | 4.0
Total Cyanide | Report | 1.0
Total Lead | Report | 1.0
Total Mercury | Report | 0.1
Total Nickel | Report | 4.0
Total Silver | Report | 1.0
Total Chromium | Report | 6.0
Total Zinc | Report | 4.0
pH | Report | 5.0 - 9.0 s.u

Rationale for Effluent Limitations

Two sets of limits will apply to the discharges from this facility to the sanitary sewers of the [Name of City]. Equivalent mass-based categorical pretreatment standards will apply to the combined wastewater streams (Pipes 01 and 02). These categorical standards are based on categorical pretreatment standards set forth in the Code of Federal Regulations [40 CFR 461.34(a)(9)]. Local sewer use ordinance limits will apply to the combined process, unregulated, and dilution waste streams at the point of discharge to the City's sewers.

The battery manufacturing categorical pretreatment standards allow a certain pollutant mass in each regulated battery manufacturing process wastestream. The allowance for the total combined process wastestream is determined by the summation of all of the allowances for each process wastestream. Because of the fluctuations in water use at this facility, the
effluent limits based on categorical standards will be mass limits (lb/day) as opposed to concentration limits (mg/l).

Total copper and total lead are the only pollutants regulated by battery manufacturing categorical pretreatment standards for the processes used by the permittee. For [Name of Industry], the only regulated process flows that receive a discharge allowance are floor wash, laboratory flows, and hand wash flows. These operations fall under the "miscellaneous wastewater streams" category and receive a one-time discharge allowance based on the production rate of the facility. None of the other processes at this facility receive any discharge allowance under categorical standards. Because regulated flows are contained in both of this facility's discharges (Pipes 01 and 02), this allowance will be applied to the combined discharge from these wastestreams. The pretreatment standards (PSES) obtained from 40 CFR 461.34(a)(9) and EPA guidance documents are given below.

<table>
<thead>
<tr>
<th>Pollutant/Process</th>
<th>Production-based Limitation (lbs per million lbs of lead used)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily Maximum</td>
</tr>
<tr>
<td>Copper, total</td>
<td>0.58</td>
</tr>
<tr>
<td>Lead, total</td>
<td>0.13</td>
</tr>
</tbody>
</table>

To calculate the equivalent mass-based limits it was necessary to determine the amount of pure lead used at this facility and the amount of lead contained in the lead pastes. Because of the rapid expansion of this facility over the past several years, the production rate was based on the estimated 1988 data only. The amount of pure lead used during the three highest production months was averaged and a daily lead usage value was determined from this average amount (based on a 22 day-per-month work schedule). This average daily lead usage value was then multiplied by the allowance values,
presented above, to obtain the daily maximum and monthly average mass-per-day permissible in [Name of Industry] total discharge.

The actual calculation of [Name of Industry] effluent limits was performed as follows:

1) **Production Rate Calculations** *(lbs per million lbs of lead used)*

[Name of Industry] supplied the following projected lead usage figures for the three highest production months of 1988:

<table>
<thead>
<tr>
<th>Month</th>
<th>Lead Oxides Usage (lbs)</th>
<th>Pure Lead Usage (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>438,000</td>
<td>400,000</td>
</tr>
<tr>
<td>November</td>
<td>428,000</td>
<td>448,000</td>
</tr>
<tr>
<td>December</td>
<td>386,000</td>
<td>400,000</td>
</tr>
</tbody>
</table>

The amount of pure lead in the lead oxides was calculated based on information provided by [Name of Industry] representatives during the meeting of 3/29/88. Pure lead in "red lead" is 91 percent and in "litharge" is 93 percent. Fifty percent of the lead oxides used are red lead and 50 percent are litharge. Therefore the weight of pure lead in the lead oxides is:

\[(0.91)(0.5)(1,252,000) + (0.93)(0.5)(1,252,000) = 1,152,000 \text{ lbs}\]

The monthly arithmetic mean for these three months is, therefore:

\[
(1,152,000 + 1,248,000)/3 = 800,000 \text{ lbs/month. Based on a 22 day-per-month work schedule, the daily lead use is, } 800,000/22 = 36,400 \text{ lbs/day.}
\]

2) **Effluent Limit Calculation** *(Example: Daily Maximum for copper)*

Production Rate x Categorical Standard = Mass-Loading

\[(0.0364 \text{ million lbs lead used/day})(0.58 \text{ lbs copper/million lbs lead used}) = 0.021 \text{ lbs copper/day} \]
APPENDIX I

SAMPLE FACT SHEET

Effluent limits for the remaining regulated parameters were calculated in the same manner and the results are presented in Section 2, Part 1 of this fact sheet.

3. MONITORING REQUIREMENTS

Effective no later than the effective date of this permit, and lasting until the expiration date of this permit, [Name of Industry] is authorized to discharge wastewater from Pipes 01 and 02. Pipes 01 and 02 are as identified in Figure 1, Attachment D. These discharges shall be monitored as specified below:

**Part 1 - Categorical Standards**

<table>
<thead>
<tr>
<th>Measurement Parameter</th>
<th>Sample Frequency</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>Continuous</td>
<td>Record</td>
</tr>
<tr>
<td>Total Copper</td>
<td>1/Month</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Lead</td>
<td>1/Month</td>
<td>24-hr Composite</td>
</tr>
</tbody>
</table>

**Part 2 - Local Limits**

<table>
<thead>
<tr>
<th>Measurement Parameter</th>
<th>Sample Frequency</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>Continuous</td>
<td>Record</td>
</tr>
<tr>
<td>Total Arsenic</td>
<td>1/6 months</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Cadmium</td>
<td>1/6 months</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Copper</td>
<td>1/Month</td>
<td>Grab</td>
</tr>
<tr>
<td>Total Cyanide</td>
<td>1/6 months</td>
<td></td>
</tr>
<tr>
<td>Total Lead</td>
<td>1/Month</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Mercury</td>
<td>1/6 months</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Nickel</td>
<td>1/6 months</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Silver</td>
<td>1/6 months</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Chromium</td>
<td>1/6 months</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>Total Zinc</td>
<td>1/month</td>
<td>24-hr Composite</td>
</tr>
<tr>
<td>pH</td>
<td>Continuous</td>
<td>Record</td>
</tr>
</tbody>
</table>
Because of the wide variation in water usage at this facility, the applicant will be required to monitor wastewater flows continuously at each pipe. The minimum frequency of sampling for all other parameters will be once per six calendar months. All samples will be 24-hour flow proportioned composites. Past practices have caused several exceedances of current effluent limits for lead, copper, and zinc and variations in production rates and wastewater flows have been noted. Therefore, monthly sampling of lead, copper, and zinc is required to provide an adequate characterization of effluent quality at this facility. For the other contaminants limited by this permit, sampling will be required once every six months in accordance with the City's minimum monitoring frequency requirements in the sewer use ordinance and in the City's permitting policies and procedures document. The baseline monitoring report (BMR) has revealed that they are not currently a problem so an increase from the minimum monitoring frequency will not be required.

Monitoring will be required at three locations at the [Name of Industry] facility as follows:

1) Pipe 01 - The connection of the discharge from the pH treatment unit to the City's sewer. The processes which contribute to this wastestream may be seen in Figure 1, Attachment D. This location will be sampled and limited as defined in Sections 2 and 3, above.

2) Pipe 02 - The connection of the combined hand wash, shower, toilet, and tech lab discharges to the City's sewer. This discharge is described schematically in Figure 1, Attachment D. This location will be sampled and limited as defined in Sections 2 and 3, above.

3) Pipe 03 - The discharge from the lead treatment unit (chemical precipitation) as shown in Figure 1, Attachment D. This location will be monitored daily for lead and monthly for copper. No effluent limits will be applied directly at this location; however, no addition of lead or copper is permissible at this discharge according to categorical standards.
4. REPORTING REQUIREMENTS

Industrial user reporting requirements will be in accordance with those outlined in the City's permitting policies and procedures. In addition, [Name of Industry] will be required to submit monthly production data (in lbs/month) and all water meter readings (in gpd). Production data will be used to determine if the production rate varies more than 20 percent from that used in calculation of effluent standards in order to determine whether permit limits must be modified. For each sampling location, wastewater flow data, effluent analytical results, calculation of mass loadings, and continuous pH chart records must also be submitted. All required reports must be submitted quarterly.

5. STANDARD CONDITIONS

The industrial user permit for [Name of Industry] will include all of the standard conditions listed in City's Permitting Policies and Procedures Document.

6. SPECIAL CONDITIONS

a. Flow measuring devices will be required at Pipes 01, 02, and 03.

b. The permittee will be required to maintain and calibrate these flow measuring devices according to manufacturer's recommendations and submit verification of these procedures with quarterly monitoring reports.

c. Because an industry site visit revealed the storage of hazardous chemicals in the facility, the permittee must develop and implement a spill prevention and control plan for the facility. The plan must be approved by the City and implemented according to the compliance schedule contained in the permit. However, approval of this plan by the City does not relieve the permittee from its requirements to meet all applicable local, State, and Federal laws and regulations.

[NOTE: Actual Appendices are not included.]

THE PERMIT WRITER NEEDS TO INCLUDE ANY SUPPORTING DOCUMENTATION SUCH AS MATERIAL SUBMITTED BY THE INDUSTRIAL USER, CALCULATIONS, ETC. AS APPENDICES.
APPENDIX I

ATTACHMENT A - Industry Submittals

ATTACHMENT B - Table of Regulated Subprocesses

ATTACHMENT C - Monthly Production Data

ATTACHMENT D - Description of Existing Pollution Abatement Facilities

ATTACHMENT E - Monitoring Data
APPENDIX J

SAMPLE WASTE HAULER PERMIT
APPENDIX J

SAMPLE WASTE HAULER PERMIT

COVER PAGE

Permit No. [cite permit number]

In accordance with the provisions of [cite specific section of ordinance]

Waste Hauler's Name
Location Address
Mailing Address (optional)

is hereby authorized to discharge hauled wastewater to the [name of Control Authority] sewer system located at [POTW Address] in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve their permittee of its obligation to comply with any or all applicable pretreatment regulations, standards, or requirements under Federal, State, or local laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the [name of Control Authority] sewer use ordinance.

This permit shall become effective on [Date] and shall expire at midnight on [Date].

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal permit in accordance with the requirements of [cite specific section of ordinance], a minimum of 90 days prior to the expiration date.

If you wish to appeal or challenge any conditions imposed in this permit, a petition shall be filed for modification or reissuance of this permit in accordance with the requirements of [cite specific section of ordinance], within 30 days of your receipt of this correspondence. Pursuant to [cite specific section of ordinance], failure to petition for reconsideration of the permit within the allotted time is deemed a waiver by the permittee of his right to challenge the terms of this permit.

[Official Seal of Control Authority]

By: [Signature] Superintendent

Issued this [Date] day of [Month], 19
APPENDIX J
SAMPLE WASTE HAULER PERMIT

SECTION 1 - DISCHARGE REQUIREMENTS

A. The discharge of all hauled wastes must be performed at the following designated area: [provide description of designated area]. Discharge to [name of Control Authority] sewer system at any other location is prohibited. The permittee must provide prior notice to the [name of Control Authority] of the intent to discharge and the actual discharge must be performed during supervision by plant personnel. In all cases, discharge may only be performed Monday through Friday 8:00 a.m. to 4:00 p.m.

B. Hauled wastes are subject to sampling by [name of Control Authority]. The hauler may also be required to suspend the discharging of wastes until the analysis is complete. The [name of Control Authority] reserves the right to refuse permission to dump any load.

SECTION 2 - SPECIFIC LIMITATIONS

A. Any commercial or industrial waste that may cause pass through of pollutants or interference with the wastewater treatment plant operations or that violates Federal, State, or local restrictions shall not be discharged to the wastewater treatment plant.

B. Any waste transported from an industry subject to categorical pretreatment standards must meet the applicable Federal categorical standards. Authorization by the [name of Control Authority] prior to pumping must be obtained for the hauling of categorical wastes.

C. The permittee is prohibited from discharging wastes with the following characteristics:

- Having a pH lower than 6.0 or higher than 9.0;

- Containing fats, wax, grease, or oils of petroleum origin, whether emulsified or not, in excess of one hundred (100) mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32°F) degrees and one hundred forty (140°F) degrees Fahrenheit (0 degrees and 60 degrees Centigrade);

- Containing any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquids, solids or gases;

- Having a temperature higher than 104°F (40°C);
- Containing any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch, manure, or any other solids or viscous substances capable of causing obstructions or other interferences with proper operation of the sewer system;

- Containing any pollutant, including oxygen demanding pollutants (BOD etc.) at flow rate and/or concentration which will cause a pass through of pollutants to occur or an interference with the [name of Control Authority] wastewater treatment facility's operations or sludge use and/or disposal practices;

- Material considered a hazardous waste under the Resource Conservation and Recovery Act (RCRA).

D. The permittee is prohibited from discharging wastes which exceed the following limitations: [The permit writer must apply local limits or any applicable, more stringent categorical standards.]

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<thead>
<tr>
<th>Substance</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
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</tr>
<tr>
<td>Barium</td>
<td>_____ mg/l</td>
</tr>
<tr>
<td>Cadmium</td>
<td>_____ mg/l</td>
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<tr>
<td>Chromium</td>
<td>_____ mg/l</td>
</tr>
<tr>
<td>Copper</td>
<td>_____ mg/l</td>
</tr>
<tr>
<td>Cyanide</td>
<td>_____ mg/l</td>
</tr>
<tr>
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<tr>
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<tr>
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<td>_____ mg/l</td>
</tr>
<tr>
<td>Oil and Grease</td>
<td>_____ mg/l</td>
</tr>
<tr>
<td>pH</td>
<td>_____ s.u.</td>
</tr>
</tbody>
</table>

SECTION 3 - MONITORING AND RECORDS

A. All wastes must be accompanied by a completed waste manifest form. The form shall contain information regarding the wastes from and the signature of, each waste generator. The hauler shall also sign the form, indicating that he has accepted no wastes other than those listed. The manifest must be reviewed by a Control Authority representative.
prior to discharge. Failure to accurately record every load, falsification of data, or failure to transmit the form to the plant operator prior to discharge may result in revocation of this permit or a fine of up to [cite dollar amount] per offense. [The permit writer should insert criminal penalties provided for in ordinance.]

B. Any waste identified as a commercial or industrial waste, as defined in [cite specific section of ordinance] must be presampled prior to pick-up by the waste hauler and the results of that sampling submitted to [name of Control Authority]. The permittee must receive approval from [name of Control Authority] prior to pick-up and hauling of said commercial or industrial wastes.

C. The permittee shall retain records of all monitoring information, waste manifest forms, copies of all reports required by this permit, and records of all data pertaining to hauled loads for a period of at least three years. This period may be extended by request of the [name of Control Authority] at any time.

SECTION 4 - STANDARD CONDITIONS

[The standard conditions may be the same as those for other industrial users. The POTW may need to develop additional standard conditions for waste haulers.] [See Appendix G]

SECTION 5 - SPECIAL CONDITIONS

A. The permittee must carry liability insurance, and provide satisfactory evidence of it to [name of Control Authority], in such amounts and form as determined by the [name of Control Authority]. Such insurance shall afford compensation for taking corrective action and for bodily injury, and for property damage to third persons caused by accidental releases. Coverage shall be in the amount of [cite dollar amount] per occurrence, and [cite dollar amount] annual aggregate amounts. The permittee may still obtain additional insurance coverage as may be deemed necessary for his or her own protection.
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