Feasibility Study for the Pretreatment Permits and Enforcement Tracking System (PPETS)

September 30, 1986

Office of Water Enforcement and Permits

U.S. Environmental Protection Agency

FEASIBILITY STUDY OVERVIEW

The National Pretreatment Program (NPP) requires that EPA implement nationwide regulations controlling the pollutants discharged to Publicly Owned Treatment Works (POTWs) by Industrial Users (IUs). EPA initiated a study to determine the feasibility of developing a Pretreatment Permits and Enforcement Tracking System (PPETS) to assist in overseeing NPP requirements.

The full feasibility study is made up of three parts:

- Summary of Pretreatment Tracking Needs
- Evaluation of Alternatives for the Pretreatment Permits and Enforcement Tracking System
- Pretreatment Permits and Enforcement Tracking System Initial System Design.

This combined volume includes all three feasibility study documents plus an executive summary.

The Summary of Pretreatment Tracking Needs describes the specific types of information that will be required by EPA Headquarters, EPA Regions, and Approved States to adequately oversee pretreatment program implementation. The report is compiled from interviews with EPA Headquarters, Regional, and State personnel and from existing knowledge of the National Pretreatment Program.

The Evaluation of Alternatives for the Pretreatment Permits and Enforcement Tracking System presents five alternative automated systems to satisfy the identified pretreatment tracking needs. The document analyzes each of the proposed alternatives over a wide range of cost and performance criteria and then recommends a specific PPETS alternative be developed.

The Pretreatment Permits and Enforcement Tracking System Initial System Design analyzes the recommended PPETS system in greater detail. The report presents a general plan for developing the proposed system and discusses PPETS

input documents, output reports, file structures, software functions, and proposed data elements.

As a whole, the feasibility study describes the pretreatment informational needs of EPA Headquarters, Regions, and States and recommends a specific automated system be developed to meet those needs. This document should serve as a basis for further pretreatment data system design and implementation efforts.

TABLE OF CONTENTS

PART I: PPETS EXECUTIVE SUMMARY

PPETS EXECUTIVE SUMMARY

Background

The objectives of the General Pretreatment Regulations (40 CFR Part 403) are to control the discharge of pollutants to Publicly Owned Treatment Works (POTWs) from Industrial Users (IUs) to prevent interference with POTW operations, prevent the pass through of pollutants to POTW receiving waters, and to prevent the contamination of sludge generated at POTWs. The General Pretreatment Regulations require POTWs to develop and implement local pretreatment programs and to apply and enforce National pretreatment standards (both categorical and prohibited discharge standards) and locally developed limitations against applicable Industrial Users.

Similar to the NPDES program, the pretreatment program will generate large volumes of data from Industrial User self-monitoring activities, POTW compliance monitoring, and Audits and Inspections by EPA and Approved States. The objective of this study was to initiate development of a Pretreatment Permits and Enforcement Tracking System (PPETS) which will enable EPA and Approved States to oversee and ensure pretreatment program implementation.

PPETS Informational Needs

The first step in the design of PPETS was to determine the informational needs of EPA and Approved States necessary for pretreatment program oversight. The PPETS informational needs were gathered through interviews with various EPA and State pretreatment personnel. Results of these interviews were presented in the Summary of Pretreatment Tracking Needs. Overall, the EPA Headquarters, EPA Region, and State personnel interviewed expressed many informational needs, including data to support decision making in the following areas:

- Determination of the Overall Effectiveness of the National Pretreatment Program
- Evaluation of Regional and Approval Authority Oversight Effectiveness
- Determination of POTW Compliance with Pretreatment Program Requirements and the Overall Compliance of Industrial Users
- Allocation of EPA Resources and Refinement of Existing Programs
- Development of National Policy and Enforcement Strategies.

PPETS Alternatives

To satisfy the identifed pretreatment data requirements, several different automated systems were proposed. After careful consideration, five alternatives, meeting various levels of pretreatment needs, were chosen for further analysis. These alternatives were designed to support the current and future needs of EPA Headquarters, Regions, and delegated States. As pretreatment programs are developed nationwide, data needs will grow from tracking program status to tracking enforcement and effectiveness. During the feasibility study, all five alternatives were analyzed in detail over a wide range of evaluation criteria. The results of these analyses are contained in the Evaluation of Alternatives for the Pretreatment Permits and Enforcement Tracking System.

The five identified alternatives for the Pretreatment Permits and Enforcement Tracking System (PPETS) are:

- Alternative 1: No National Automated System for Pretreatment Permits and Enforcement Tracking
- Alternative 2: EPA Oversight System (Headquarters and Regions)
- Alternative 3: System for Approval Authorities and Higher Levels
- Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)
- Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data).

These five alternatives are summarized on the chart in Exhibit 1.

Alternative 1, 'No National Automated System for Pretreatment Permits and Enforcement Tracking,' would continue the status quo. At present, only very limited data about the occurrences and dates of PCIs and Program Audits is entered into PCS. EPA has issued suggested format guidances for major pretreatment reports, but these formats are not mandatory, and the reports are not necessarily passed from delegated State Approval Authorities to EPA. The current system allows EPA to verify that PCIs and Audits are being performed, but gives little or no information about actual POTW or IU compliance.

Alternative 2, the 'EPA Oversight System (Headquarters and Regions),' would track data contained in the Control Authority Pretreatment Performance Summary (PPS) format suggested by EPA in the Pretreatment Compliance Monitoring and Enforcement Guidance. All of the data in the PPS would be entered by the EPA Regions into an expanded version of the Permits Compliance System (PCS). This system would provide summary pretreatment compliance statistics for IUs and identify the level of enforcement, compliance, and monitoring activity undertaken by POTWs, thus providing some basis for an overall evaluation of pretreatment program effectiveness.

Alternative 3, 'System for Approval Authorities and Higher Levels,' would contain all of the PPS data tracked in Alternative 2, and would also track data from PCI and Program Audit checklists. The data would be stored in an expanded PCS and would be entered by the delegated State Approval Authorities or by the responsible EPA Regions. This system would provide more detailed information about the effectiveness of individual POTW programs and would provide an Approval Authority evaluation of compliance status.

Alternative 4, 'System for Approval Authorities and Higher Levels (with Limited IU Data),' is essentially an enhancement of the previous alternative. In addition to all the data stored by Alternative 3, Alternative 4 would also track data for a limited number of Industrial Users. Since the total number of IUs is very large and may overload PCS capabilities, Alternative 4 will only track those IUs where the Approval Authority acts as Control Authority.

PRETREATMENT TRACKING ALTERNATIVE NUMBER	PRETREATMENT TRACKING ALTERNATIVE NAME	MAJOR SUPPORTED FUNCTIONS	ESSENTIAL AUTOMATED DATA	DATA ENTRY	REQUIRED HARDWARE
1	NO NATIONAL AUTOMATED SYSTEM FOR PRETREATMENT PERMITS AND ENFORCEMENT	• No Functions Fully Supported. • Effectiveness of National Pretreatment Program (NPP) can be evaluated partially via PCS and manual studies.	• PCI counts • Program Audit counts • POTW NPDES Data	Delegated States (that use PCS), EPA Regions	EPA IBM Mainframe, Terminals & Modems
2	EPA OVERSIGHT SYSTEM (HEADQUARTERS AND REGIONS)	• Evaluate NPP Effectiveness • Evaluate Regional Oversight Effectiveness • Assess POTW Enforcement of Pretreatment Regulations • Determine IU Categorical and Local Limits Compliance (Summary Level) • Determine IU Compliance with Self-Monitoring Requirements (Summary Level)	• Control Authority Pretreatment Performance Summaries • PCI counts • Program Audit counts • POTW NPDES Data	EPA Regions	EPA IBM Mainframe, Terminals & Modems
3	SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS	• Evaluate NPP Effectiveness • Evaluate Regional Oversight Effectiveness • Evaluate State Program Effectiveness • Evaluate POTW Program Effectiveness • Allocate EPA Resources • Develop National Policy/Guidance • Refine Existing Programs • Develop Enforcement Strategies • Determine IU Categorical and Local Limits Compliance (Summary Level) • Determine IU Compliance with Self-Monitoring Requirements (Summary Level)	• Control Authority Pretreatment Performance Summaries • PCI Checklists • Program Audit Checklists • POTW NPDES Data	Participating Approval Authorities and EPA Regions	EPA IBM Mainframe, Terminals & Modems
4	SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS (WITH LIMITED IU DATA)	• Evaluate NPP Effectiveness • Evaluate Regional Oversight Effectiveness • Evaluate State Program Effectiveness • Evaluate POTW Program Effectiveness • Allocate EPA Resources • Develop National Policy/Guidance • Refine Existing Programs • Develop Enforcement Strategies • Determine IU Categorical and Local Limits Compliance (Summary and Limited Detail) • Determine IU Compliance with Self-Monitoring Requirements (Summary and Limited Detail)	• Control Authority Pretreatment Performance Summaries • PCI Checklists • Program Audit Checklists • POTW NPDES Data • Inspections of Industrial Users • Monitoring Reports of IU Compliance • IU Compliance Schedules	Participating Approval Authorities and EPA Regions	EPA IBM Mainframe, Terminals & Modems
5	SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS (WITH EXTENSIVE IU DATA)	• Evaluate NPP Effectiveness • Evaluate Regional Oversight Effectiveness • Evaluate State Program Effectiveness • Evaluate POTW Program Effectiveness • Allocate EPA Resources • Develop National Policy/Guidance • Refine Existing Programs • Develop Enforcement Strategies • Determine IU Categorical and Local Limits Compliance (Summary and Extensive Detail) • Determine IU Compliance with Self-Monitoring Requirements (Summary and Extensive Detail)	• Control Authority Pretreatment Performance Summaries • PCI Checklists • Program Audit Checklists • POTW NPDES Data • Inspections of Industrial Users • Monitoring Reports of IU Compliance • IU Compliance Schedules	Participating Approval Authorities and EPA Regions	EPA IBM Mainframe, Terminals & Modems

EXHIBIT 1

The current PCS system will be modified to track Industrial User data in an analogous manner to the way it tracks POTW discharge, reporting, and compliance data; these capabilities would be used by those EPA Regions and delegated States that need special automated support to manage those IUs for which they are directly responsible. This alternative would not only provide summary pretreatment compliance statistics for POTWs, but would also provide detailed data about a critical subset of Industrial Users.

Alternative 5, 'System for Approval Authorities and Higher Levels (with Extensive IU Data),' is a comprehensive system. It would track PPS, PCI checklist, and Program Audit checklist data, and would also be capable of tracking detailed data for all Industrial Users. The PPS, PCI, and Audit data would be tracked in an expanded PCS, but the IU data would be tracked in a new system designed expressly for PPETS. Participating Approval Authorities would still be responsible for entering data and could track as many Industrial Users as they deem necessary. This system would provide summary data for EPA oversight as well as detailed data for direct regulation.

Evaluation Criteria and Analyses

As part of the feasibility study, a detailed analysis was conducted for all of the alternatives. Some of the most important criteria considered were:

- Tracking System Objectives: the ability of each alternative to satisfy EPA's expressed data needs
- Data Availability: the accessibility of the data that will be required for each alternative
- Timeline Criteria: the time frames necessary for development of each alternative
- Lifecycle Cost Criteria: the estimated costs for development and five years of operations of each alternative

In the Summary of Pretreatment Tracking Needs, the EPA Headquarters, Regions, and delegated States identified 14 basic objectives for the PPETS system. The different alternatives support these objectives in varying

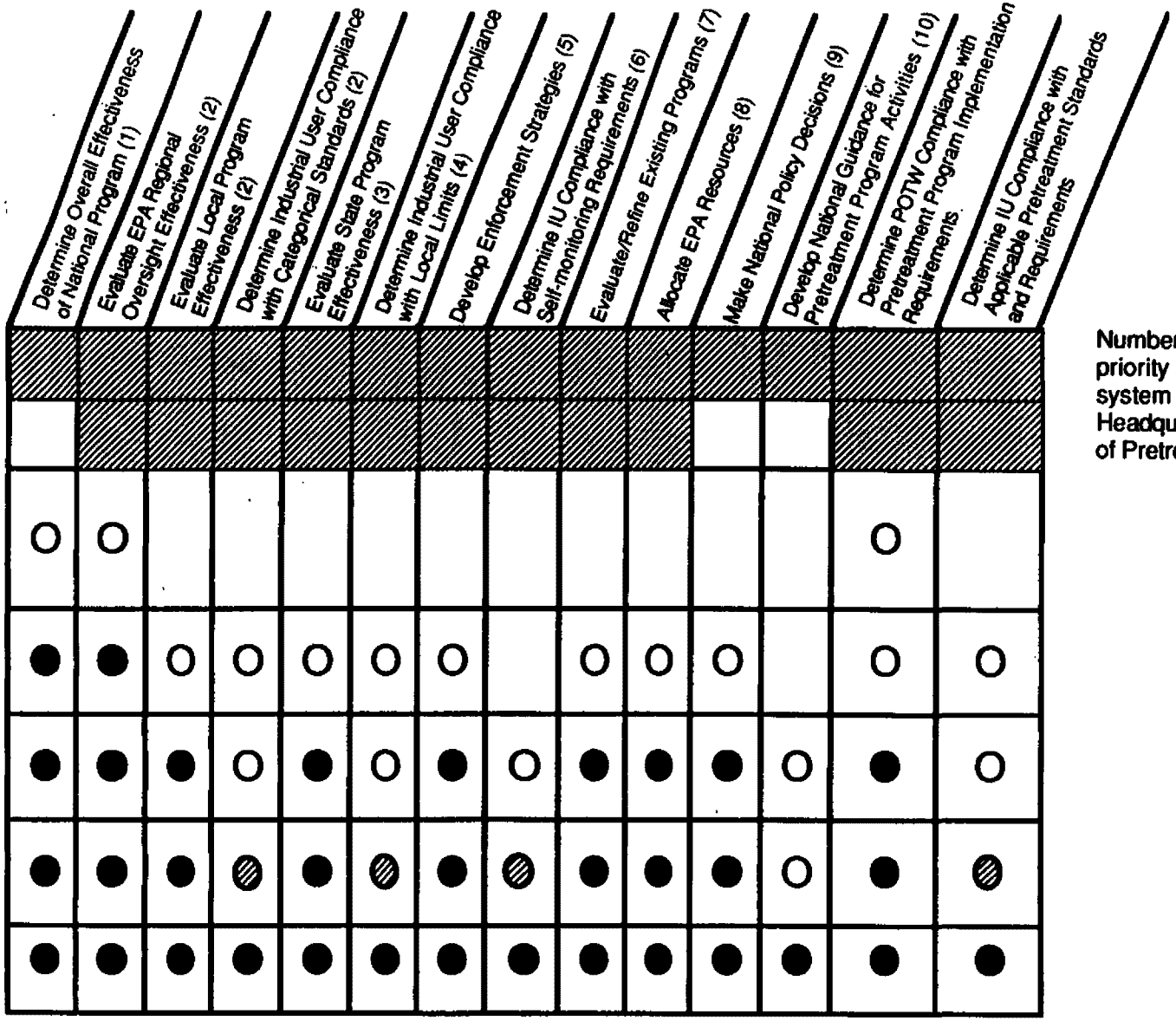
degrees, as illustrated in Exhibit 2. Alternative 1 does not fully support any of the objectives. Alternative 2 fully supports the two most important objectives, "To Determine the Overall Effectiveness of the National Program" and "To Evaluate EPA Regional Oversight Effectiveness;" it also provides partial support for ten other objectives. Alternative 3 is more complete and fully supports nine of EPA's objectives and partially supports the rest. Alternative 4 supplements Alternative 3 by fully supporting several more objectives for the subset of Industrial Users being tracked. Alternative 5 is the most comprehensive system and, with sufficient data, could fully support all of the EPA and State tracking system objectives.

The availability of accurate and consistent data will be crucial to the usefulness of any system. All of the alternatives are based on current and already proposed input documents; no alternative will entail the creation of new input documents. EPA guidances currently have recommended formats for the Pretreatment Performance Summary, PCI checklist, and Program Audit checklist. However, use of these specific formats is not currently mandatory. To effectively implement any of the above alternatives, EPA and Approved States will have to reach agreement on use of the recommended formats, including definition of terms. At present, EPA has not issued suggested formats for many Industrial User reports. If Alternatives 4 or 5 are chosen, then EPA may have to standardize formats for these existing IU reports.

The overall timeline required for system development will include allowances for preliminary studies, design and implementation, NCC approval, and installation and training. The more complex PPETS alternatives will require longer time periods than the simpler ones. Estimates of the total development time for each alternative are listed in Exhibit 3.

System lifecycle costs can be broken down into two categories: development costs and operating costs. Development costs are all the one-time costs associated with establishing a new system and include personnel costs, timesharing costs, travel costs, and required hardware purchases. Dollar estimates for the general development costs of each alternative are listed in Exhibit 3.

TRACKING SYSTEM OBJECTIVES



Number in parentheses refers to priority given to the tracking system objectives by EPA Headquarters in the Summary of Pretreatment Tracking Needs.

○ Means Proposed Alternative Partially Supports Tracking System Objective

◍ Means Proposed Alternative Fully Supports Tracking System Objective For a Subset of IUs

● Means Proposed Alternative Fully Supports Tracking System Objective

EXHIBIT 2

TIMELINE AND COST ESTIMATES

	Estimated Development Timeline	Estimated Development Costs	Estimated 5 Year Operating Costs
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	Currently in Existence	Currently in Existence	$67,000 (Approximate pretreatment share of PCS operating costs)
Alternative 2: EPA Oversight System (Headquarters and Regions)	5 to 7 Months	$55,000 to $78,000	$366,000 to $610,000
Alternative 3: System for Approval Authorities and Higher Levels	8 to 13 Months	$151,000 to $229,000	$923,000 to $1,262,000
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	14 to 20 Months	$322,000 to $459,000	$1,780,000 to $2,310,000
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	27 to 36 Months	$1,072,000 to $1,457,000	$7,865,000 to $9,567,000

EXHIBIT 3

Operating costs are the costs necessary to operate, maintain, and support a computer system. These costs include data entry, equipment maintenance, software maintenance, timesharing, and user support. Dollar estimates for the five year operating expenses of each alternative are listed in Exhibit 3.

Recommendation

From the analyses conducted during the feasibility study, Alternative 1, the current system, is clearly inadequate to meet EPA's pretreatment tracking needs. Alternative 5, while potentially meeting all of EPA's needs, is far too resource intensive to be implemented at this time. Out of the remaining alternatives, Alternative 4 is the best choice to fully satisfy many of the informational needs stated by EPA Headquarters, Regional, and State personnel. It will provide summary data about industrial compliance as well as sufficient data on the operations of an individual POTW to maintain a record of performance. Additionally, it will provide Regions and Approved States with the capability to track individual performance for a subset of Industrial Users.

Instead of being implemented all at one time, Alternative 4 should be implemented in a two step approach:

- Step 1: Implementation of the PPETS system to track PCI, Program Audit, and PPS data (Alternative 3).
- Step 2: Enhancement of the PPETS system to track the limited amounts of Industrial User data (Alternative 4).

This incremental approach will have a pretreatment system on-line within a shorter period of time and will not require any duplication of effort.

Although Step 1 is to be developed as a package, use and data entry to the system should be phased in over time. As the EPA Regions and Approved States implement and develop their pretreatment programs, usage of the PPETS system should be increased. It is suggested that PPETS be first utilized to track PCI and Program Audit data. Currently, much of EPA's pretreatment efforts are

directed towards PCIs and Program Audits, which provide the most comprehensive and accurate data about POTW pretreatment program implementation. Data from Pretreatment Performance Summaries would be incorporated into PPETS as the second phase of Step 1. After the Step 1 PPETS system is operational, the Step 2 system should be developed. Exhibit 4 illustrates a proposed timeline for overall PPETS development and usage.

PPETS AND PRETREATMENT PROGRAM TIMELINE

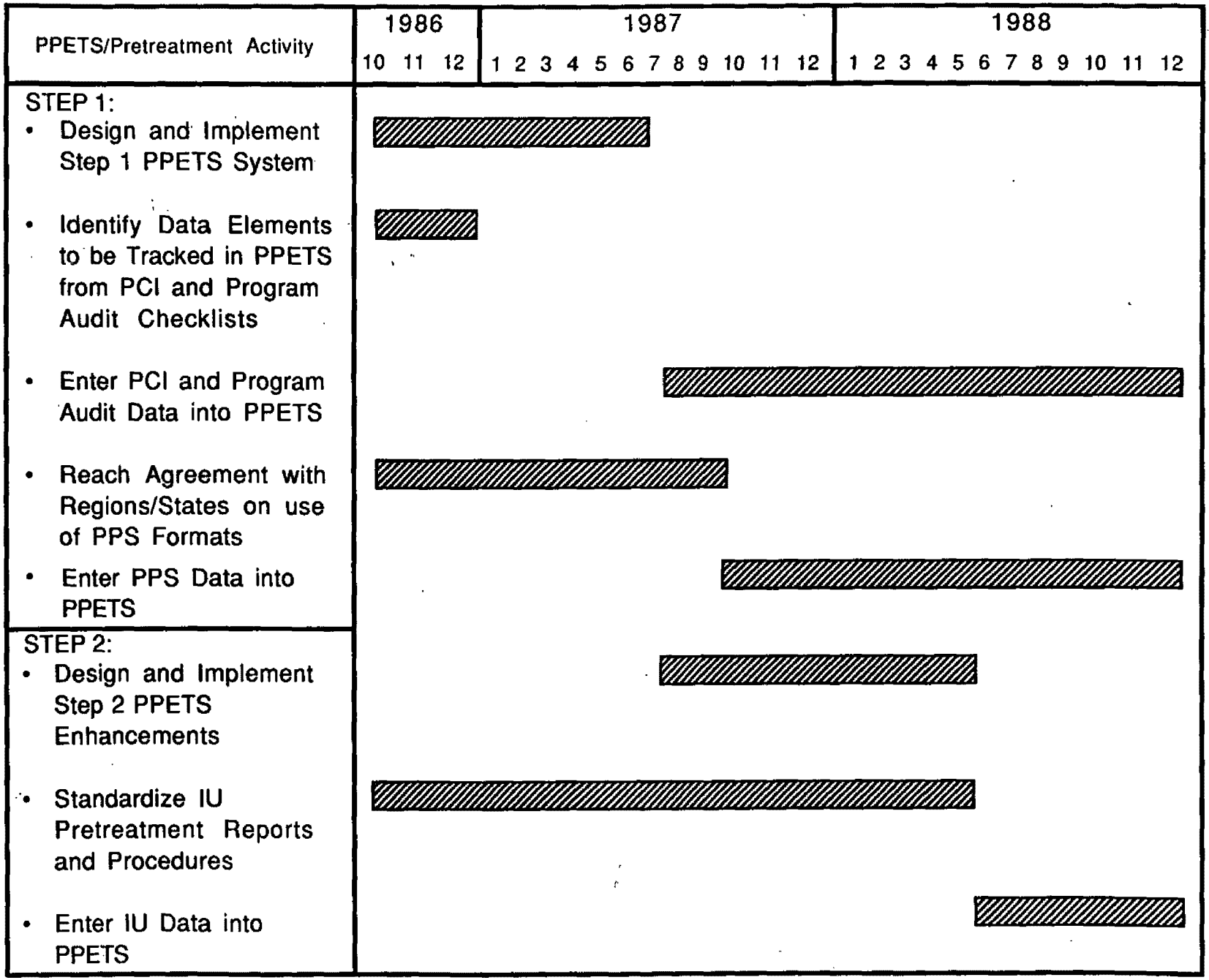


Exhibit 4

PART II: SUMMARY OF PRETREATMENT TRACKING NEEDS

TABLE OF CONTENTS

1. INTRODUCTION

The objectives of the General Pretreatment Regulations (40 CFR Part 403) are to control the discharge of pollutants to Publicly Owned Treatment Works (POTWs) from industrial users to prevent interference with POTW operations, prevent the pass through of pollutants to POTW receiving waters, and to prevent the contamination of sludge generated at POTWs. These General Pretreatment Regulations are being implemented through the National Pretreatment Program. This program requires POTWs to develop and implement local pretreatment programs to apply and enforce National pretreatment standards (both categorical and prohibited discharge standards) and locally developed limitations against applicable industrial users. Where POTWs are not required to develop a local pretreatment program, NPDES States with approved pretreatment programs or EPA are responsible for applying and enforcing pretreatment standards against applicable industrial users.

Since the beginning of the National Pretreatment Program, 90 percent of the POTWs required to develop local pretreatment programs have received approval for their local programs. Further, 22 out of the 37 States with approved NPDES permit programs have received State pretreatment program approval. Table 1-1 summarizes the current status of POTW pretreatment program and State program approvals.

TABLE 1-1. NATIONAL PRETREATMENT PROGRAM STATUS SUMMARY
(As of 12/31/85)

TOTAL PROGRAMS REQUIRED: 1461

TOTAL PROGRAMS APPROVED: 1318

	Number of Programs Required	Number of Programs Approved
Region I	81	66
ME	16	15
MA	41	30
NH	11	10
*RI	13	11
*CT		Statewide
*VT		Statewide
Region II	81	76
*NJ	24	22
NY	56	53
PR	1	1
Region III	139	109
DE	5	5
DC	1	0
*MD	16	6
PA	85	67
VA	25	24
*WV	7	7
Region IV	406	391
*AL	60	60
FL	28	23
*GA	37	37
*KY	51	49
*NC	121	117
*SC	55	52
*TN	54	53
*MS		Statewide
Region V	336	290
IL	47	37
IN	51	44
*MI	109	93
*MN	6	6
*OH	100	87
*WI	23	23
Region VI	123	113
AR	27	25
LA	12	11
NM	4	4
OK	20	18
TX	60	55
Region VII	76	75
*IA	19	19
KS	13	13
*MO	44	43
*NB		Statewide
Region VIII	53	35
CO	26	19
MT	6	3
ND	3	2
SD	2	2
UT	13	9
WY	3	0
Region IX	121	121
AZ	15	15
CA	100	100
*HI	1	1
NV	5	5
Region X	45	42
AK	2	2
ID	13	13
*OR	21	21
WA	9	6

*Approved State Pretreatment Program

Through the development and implementation of local pretreatment programs, numerous types of data are generated by industrial users, POTWs, States, and EPA Regions. Some of these data are critical to the effective administration and management of the National Pretreatment Program as well as to the determination of how effective the National Program is to achieving its goals and the overall goals of the Clean Water Act. Development of a National data tracking system is, therefore, a prerequisite to an assessment of program effectiveness and administration of the program at the National (EPA Headquarters)

1.1 PURPOSE OF THIS REPORT

Prior to the design and subsequent development of a National pretreatment tracking system, the specific types of information that would be required by EPA Headquarters, EPA Regions, and States to adequately oversee pretreatment program implementation have to be identified. Further, considerations of the current pretreatment data tracking systems and capabilities of EPA Regions and States is also needed for evaluation of any options proposed for a National pretreatment tracking system.

The purpose of this report is to summarize the informational needs of, and current operating environments at, EPA Headquarters, EPA Regions, and States. The following summary was developed utilizing existing knowledge of the National

Pretreatment Program and information collected from EPA Headquarters, EPA Regions, and State pretreatment personnel.

1.2 TYPE OF DATA GENERATED BY THE PRETREATMENT PROGRAM

Prior to the description of what types of pretreatment data should be tracked nationally, a characterization of the various types of data generated by EPA Regions, States, POTWs, and industrial users is needed. This section summarizes the types of data generated by the pretreatment program in an attempt to define the universe of information upon which decisions regarding pretreatment data/information tracking were based.

1.2.1 Data Generated by Industrial Users

Industrial users are responsible primarily for complying with applicable pretreatment discharge standards and requirements. Generally, data on compliance with these standards is generated by industrial users and summarized in industrial user reports. National categorical pretreatment standards are technology-based standards set by EPA, which apply to 26 specific industrial categories. For those industrial users subject to National categorical pretreatment standards, industrial user reports are required by the General Pretreatment Regulations (40 CFR 403.12). These reports generally include baseline monitoring reports, final compliance reports, and periodic compliance reports. The information required in industrial user reports are shown in Table 1-2. These industrial

TABLE 1-2. REQUIRED INDUSTRIAL USER REPORTS

TYPE OF REPORT	REQUIRED FREQUENCY OF SUBMISSION	REQUIRED CONTENTS	REVIEW AND MAINTENANCE RESPONSIBILITY[1]
Baseline Monitoring Report For Categorical Industrial Users	1	o Name, Address o Description of Environmental Permits o Description of Operations (i.e., SIC Code) o Flow Measurement o Measurement of Pollutants o Compliance Certification o Compliance Schedule (if needed)	o Control Authority
Compliance Schedule Progress Report (For Categorical Industrial Users that Submitted a Compliance Schedule with the BMR)	Variable	o Compliance with Increments of Progress o Reason(s) for Delays, if Applicable	o Control Authority
Final Compliance Report For Categorical Industrial Users	1	o Flow Measurement o Measurement of Pollutants o Compliance Certification	o Control Authority
Periodic Compliance Report For Categorical Industrial Users	Minimum 2/year	o Flow Measurement o Measurement of Pollutants	o Control Authority
Self Monitoring Reports For Significant Industrial Users	Variable, depends Upon Control Authority	o Varies depending upon Control Authority Requirements. Most will require measurement of pollutants at end-of-pipe location. Other information could include RCRA waste disposal practices, flow measurement, etc.	o Control Authority
Notice of Slug Loading	Variable, depends Upon Event	o Industrial user must immediately notify POTW of a slug loading event	o Control Authority
Request for Categorical Standards Modification (i.e. Net/Gross, Fundamentally Different Factors)[2]	1	o Depends upon modification requested	o Approval Authority

[1] In the absence of an approval POTW pretreatment program, the Approval Authority (delegated state or EPA Region) must assume the Control Authority responsibilities.

[2] Requests for Categorical Standards Modification should not be considered routine in terms of reports submitted by industrial users. Only a small percentage of industrial users will apply for categorical standards modifications.

user reports are submitted to, as well as reviewed and maintained by, the appropriate Control Authority, which is responsible for determining industrial user compliance with categorical standards. In most cases, the Control Authority will be a POTW authority with an approved local pretreatment program. In the absence of an approved POTW pretreatment program, Control Authority responsibility will rest with the Approval Authority, i.e., a State with an approved pretreatment program or EPA (see Table 1-1.).

Industrial users, whether subject to categorical standards or not, are subject to National prohibited discharge standards (as defined in 40 CFR 403.5(b)), as well as local discharge limitations and self-monitoring requirements imposed by a Control Authority. Local discharge limitations are set by the Control Authority to prevent discharges that contain pollutants which interfere with treatment plant unit processes, which pass through the treatment plant and adversely affect NPDES permit compliance and receiving water quality, and which contaminate sludge to levels that minimize disposal options. Local discharge limitations are normally applied in a technically based, defensible manner for all industrial users of a POTW system.

Industrial users subject to categorical standards may also be subject to locally imposed self-monitoring requirements in addition to those required by the General Pretreatment

Regulations. These locally imposed self-monitoring requirements would be required at the discretion of the Control Authority and could include information such as data to determine compliance with local limits. Other industrial users which are not subject to categorical standards but are regulated by local pretreatment programs, may also be required to comply with self-monitoring requirements of the Control Authority. These other regulated industrial users are normally considered "significant noncategorical industrial users" the definition of which varies among Control Authorities. Current EPA guidance entitled "Pretreatment Compliance Monitoring and Enforcement Guidance" has defined a significant noncategorical industrial user in an effort to consistently categorize these industrial users. A significant noncategorical industrial user is defined by EPA in this guidance as a user which discharges 25,000 gallons per day or more, or has a reasonable potential, in the opinion of the Control Authority, to adversely affect the POTW (i.e., interference, pass-through of pollutants, sludge contamination, or endangerment of workers).

The specific data required in local self-monitoring reports depends primarily upon the needs and requirements of the Control Authority. Further, the frequency of submission of local self-monitoring reports can vary from as often as once per week to not at all, depending again upon the requirements established by the respective Control Authority.

Early EPA estimates indicated that approximately 14,000 industrial users would be subject to categorical pretreatment standards; more recently, many sources believe that the actual number is larger than this estimate. At this time, there is no reliable estimate as to the number of noncategorical industrial users who are also regulated by POTW pretreatment programs.

1.2.2 Data Generated by Control Authorities

As a result of both pretreatment program development and implementation activities, POTWs will generate large volumes of data. Table 1-3 presents a brief summary of the major types of data related to Control Authority pretreatment program development and implementation. The development of an approvable pretreatment program by a POTW involves the submission of information such as an industrial waste survey to identify industrial users (both categorical and noncategorical) serviced by the POTW and procedures to regulate the discharge from these industrial users. The procedures involve developing an industrial user monitoring (inspection and sampling) and enforcement program. The POTW pretreatment program submission is reviewed by the Approval Authority. Data contained in the program submission is utilized by POTWs during program implementation. Currently, most local pretreatment programs have been developed, and only a small percentage of POTWs have not submitted pretreatment program submissions.

TABLE 1-3. SUMMARY OF CONTROL AUTHORITY PRETREATMENT PROGRAM ACTIVITIES AND REQUIREMENTS

Activity/Requirement	Major Components Involved
Pretreatment Program Development/Submission	o Legal Authority o Industrial Waste Survey o Technical Information (including local limits) o Administrative Plan for Implementation
Pretreatment Program Implementation	o Issuance of IU Control Mechanism o Industrial User Monitoring (sampling and inspection) o Enforcement of applicable pretreatment standards
Removal Credits Application/ Implementation (optional)	o POTW Monitoring Data o Documentation of Consistent Removal Rates o Calculation of Revised Discharge Standards o Local Pretreatment Program Certification o NPDES Permit and Sludge Management Certification o Periodic Reports on Consistent Removal

The implementation of an approved pretreatment program by a POTW primarily involves the issuance of control mechanisms (e.g., discharge permits) and monitoring of industrial users to determine compliance with applicable pretreatment standards. Further, appropriate enforcement actions would be taken when necessary. The industrial user monitoring data generated is, therefore, reviewed and maintained by the Control Authority. The types and amounts of industrial user data collected varies depending upon the needs of, and resources available to, the Control Authority. EPA currently recommends monitoring of categorical industrial users at least semi-annually for compliance with applicable pretreatment standards (categorical standards and/or local limits). In many instances, substantial quantities of data are generated during pretreatment program implementation. As part of their Control Authority oversight responsibilities, many Approval Authorities have required annual reports from Control Authorities which summarize their pretreatment program activities, including, in some instances, all the monitoring data generated to determine compliance of industrial users and enforcement actions when noncompliance was identified. Currently the level of detail contained in each annual report varies dramatically in accordance with respective Approval Authority requirements. The recent EPA "Pretreatment Compliance Monitoring and Enforcement Guidance" contains a

recommended annual report format for POTWs. This recommended format requires at least the minimim amount of information which an Approval Authority would need regarding pretreatment activities of the Control Authority, to evaluate the effectiveness of its pretreatment program.

Removal credit applications (40 CFR 403.7) are another source of data generated by Control Authorities, although submissions are discretionary. If removal credit authority is granted to the Control Authority, specific monitoring and reporting requirements are then required by the Approval Authority. These monitoring and reporting requirements generally require the Control Authority to submit data to the Approval Authority showing continued consistent removal of pollutants for which removal credits were granted. Currently, only about 11 of the nearly 1,500 Control Authorities have been granted removal credit authority.

1.2.3 Data Generated By Approval Authorities

The Approval Authority, which is responsible for oversight of approved POTW pretreatment programs, may generate data from three activities: pretreatment compliance inspections (PCI's), pretreatment program audits, and review of required annual reports. Table 1-4 describes the components of each of these data sources. PCIs were established to expand the scope of municipal NPDES inspections to include evaluation of POTW pretreatment

TABLE 1-4. DESCRIPTION OF APPROVAL AUTHORITY ACTIVITIES

Approval Authority Activity	Recommended Frequency of Activity	Control Authority Pretreatment Program Components Evaluated
Pretreatment Compliance Inspection (PCI)	Performed once a Year	o Inspection and Monitoring of Industrial Users o Control Mechanism (i.e., Industrial User Permit) o Enforcement Procedures o Compliance Tracking
Pretreatment Program Audit	Performed once every five years or prior to POTW NPDES permit reissuance	o Legal Authority o Industrial Waste Survey o Technical Information (i.e., Local Limits) o Control Mechanism (i.e., Industrial User Permit) o Inspection and Monitoring of Industrial Users o Enforcement Procedures o Compliance Tracking o Data Management and Public Participation o Program Resources
Annual Report Requirements	Required to be submitted at least once a year	o Currently varies among Approval Authorities. Some require extensive data to be submittted while others do not (See Table 1-5.)

program implementation. The PCI is intended to evaluate the effectiveness of the Control Authority's compliance monitoring and enforcement program. PCIs are usually performed in conjunction with other NPDES inspections. During the course of a PCI, specific monitoring data on industrial users is normally collected, in addition to information regarding enforcement actions taken by the Control Authority in response to industrial user noncompliance.

The pretreatment program audit encompasses the review of all aspects of a Control Authority's pretreatment program. In addition to the data collected during a PCI, additional POTW program elements are evaluated including legal authority, origin and application of pretreatment standards, data management, and program resources information.

Annual reports are currently being required by many Approval Authorities. The purpose of these annual reports is to update information on Control Authority pretreatment programs, ensure that these programs are being implemented properly, and to compliment and verify information received during PCIs and audits. However, specific requirements for annual reports vary among Approval Authorities. Some require information regarding all aspects of a pretreatment program, while others may only require notification of program changes. Table 1-5 presents a summary of current annual report requirements based upon SAIC's

experience.

In the absence of an approved local pretreatment program, the Approval Authority is responsible for direct oversight of categorical industrial users. This would result in the generation of industrial user monitoring data and collection of industrial user self-monitoring data by the Approval Authority to determine compliance with applicable pretreatment standards. Appropriate enforcement actions against noncomplying industrial users would also be performed by the Approval Authority.

Finally, Approval Authorities may perform industrial user monitoring of industrial users which are regulated by POTWs with approved pretreatment programs as an independent check on industry compliance. Such industrial inspections would usually be performed by the Approval Authority in conjunction with an audit. Appropriate enforcement actions may also be initiated by the Approval Authority, possibly in conjunction with the Control Authority. As a result of this independent industrial user monitoring, data related to industrial user compliance will also be generated by the Approval Authority.

TABLE 1-5. SUMMARY TABLE OF ANNUAL REPORT REQUIREMENTS

Annual Report Elements	I	II	III		IV				V		VI	VII	VIII	IX	X
	ME	NV	PA	VA	GA	KY	NC	TN	REG	IN	WI	REG	ME	CO	REG	REG
Updated IWS (Annual)	X	X			X				X	X			X	X	X	X
Inspection and Monitoring Efforts																
Summary of Previous Years Activities	X	X			X	X	X	X			X					X
Proposed Schedule for Next Year		X														X
Summary of POTW Monitoring Efforts (*sludge data only)	X	X			X	X		X	X				X*		X	
Compliance Status																
Description of Each Major Industry			X	X												
Notification of Substantial Changes in Volume or Characteristics of Pollutants				X												
Identification of All New Pollutants			X													
List of Significant Non-Compliance Industries	X	X			X		X	X	X			X		X		X
List of Interference/Upset/Permit Violation Incidents		X			X			X					X		X	X
Summary of Compliance Status	X	X			X					X		X	X		X	X
Summary of Enforcement Action	X	X			X	X	X	X			X				X	X
Summary of Control Mechanism Efforts																
Issuance		X					X				X				X	X
Revisions to IU Limits					X											
Notification Efforts																
IUs Without Compliance Schedules	X															X
IUs With Compliance Schedules		X						X								X
Summary of Public Participation Efforts					X			X							X	
Program Evaluation																
Evaluation of Program Effectiveness	X										X	X				
Evaluation of Resources	X				X	X	X					X			X	
Notification of Changes to Program	X	X			X			X	X	X	X			X	X	
Notification of Proposed Changes	X	X					X						X	X	X	X
Reporting Frequency	1/ yr	un- spec	1/ qtr	1/ qtr	1/ yr	2/ yr	2/ yr	2/ yr	1/ yr	1/ qtr	1/ yr	1/ yr	1/ yr	1/ yr	1/ yr	1/ yr

* As of March, 1986

2. PRETREATMENT TRACKING NEEDS OF EPA HEADQUARTERS

In an effort to evaluate the types of informational needs of EPA's Office of Water Enforcement and Permits (OWEP) which could be supported by a National pretreatment tracking system, interviews of various personnel within OWEP's Enforcement and Permits Divisions were conducted. During each interview, the specific informational needs for a pretreatment tracking system that would be required by OWEP personnel to properly oversee implementation of the National Pretreatment Program were identified. A total of nine interviews were conducted involving 11 OWEP personnel; six representing the Enforcement Division and five representing the Permits Division. The OWEP personnel interviewed were chosen by the EPA Work Assignment Manager.

2.1 EPA HEADQUARTER'S GENERAL PRETREATMENT INFORMATION NEEDS

Based on interview responses from OWEP personnel, the general pretreatment information needs of OWEP that would be supported by a National tracking system were identified. Table 2-1 presents a summary of the general pretreatment tracking needs. These general pretreatment tracking needs are shown in descending order of priority and summarize both OWEP Enforcement and Permits Division's responses. The rankings of information needs in Table 2-1 were based upon the relative level of priority chosen for each information need by each person interviewed. Each level of priority chosen (i.e., high, medium, low, or no) was assigned a

TABLE 2-1. PRETREATMENT TRACKING SYSTEM PRIORITY INFORMATION NEEDS FOR EPA HEADQUARTERS*

OWEP - ENFORCEMENT AND PERMITS DIVISIONS

1. Determine Overall Effectiveness of National Program
2. Evaluate EPA Regional Oversight Effectiveness
2. Evaluate Local Program Effectiveness
2. Determine Industrial User Compliance with Categorical Standards
3. Evaluate State Program Effectiveness
4. Determine Industrial User Compliance with Local Limits
5. Develop Enforcement Strategies
6. Determine Industrial User Compliance With Self-Monitoring Requirements
7. Evaluate/Refine Existing Programs
8. Allocate EPA Resources
9. Make National Policy Decisions
10. Develop National Guidance for Pretreatment Program Activities

*Tracking needs are presented in order of importance based upon EPA Headquarters interview responses. Some rankings may contain multiple information needs which should be considered equal in priority.

corresponding numerical value (i.e., 3-high, 2-medium, 1-low, o-no) to produce average priorities for each general information need, which were then ranked accordingly.

The highest priority for both the Enforcement and Permits Divisions was to determine the overall effectiveness of the National Pretreatment Program. Other information needs that appear as overall high priorities for OWEP are evaluating EPA Region, State and local program effectiveness, and determining industrial user compliance with applicable categorical standards/requirements and local limits.

Another information need that was of interest to OWEP personnel is the need to collect/integrate data from other EPA programs, particularly RCRA and sludge programs. It was generally felt however, that the need for information from other programs is secondary, and current OWEP efforts should be first directed towards the development of a pretreatment tracking system which will assist OWEP in the oversight of the National Pretreatment Program.

2.2 DESCRIPTION OF PRETREATMENT TRACKING DATA ELEMENTS

Bases on the general information needs of OWEP described in the previous section and in Table 2-1, an effort was made to identify the specific types of data that would need to be included in a National pretreatment tracking system. Attachment A summarizes, for each priority pretreatment tracking need identified b

to support the need, the data types associated with each measurement, and for reference, the priority rankings from Table 2-1. The potential measurements and associated data types were developed based upon the interview responses from the OWEP personnel. The potential measurements for each pretreatment tracking need shown in Attachment A are shown in descending order of importance. Ideally, all measurements and associated data types would be tracked to support the pretreatment information need. However, due to resource or other constraints, only the measurements and data types of higher importance may be considered for a given need.

As shown in Attachment A, the measurements and associated data types vary between tracking system needs. However, some overlap of measurements and associated data types also does occur between tracking system needs. For example, summarizing POTW PCI results would help support a number of EPA Headquarters tracking system needs including:

- Determining the overall effectiveness of the National Pretreatment Program
- Evaluating local (POTW) program effectiveness
- Developing enforcement strategies
- Evaluating/refining existing programs
- Developing National guidance.

The first page of Attachment A presents a summary showing the

measurements associated with each tracking system need. Review of this chart reveals that several tracking system needs can be supported through the utilization of a few potential measurements, or types of information, common to each need. However, it is important to note that the complexity within a given measurement and associated data type will vary depending upon the level (i.e., EPA Region, State, POTW or industrial user) at which data will be tracked for each measurement. Although a few measurements may support several tracking system needs, the data types and level of detail desired for the few measurements may result in a large, complex tracking system. Therefore, it is important that the associated data types and level of detail of data collected be considered when potential measurements are selected.

2.3 ISSUES RELATED TO THE DEVELOPMENT OF EPA'S PRETREATMENT TRACKING SYSTEM

During the interviews of OWEP personnel, issues related to the development and implementation of a pretreatment tracking system were discussed. This section will briefly summarize the responses from OWEP personnel interviews on these issues.

Overall, it was felt that the types of data that would be obtained for the pretreatment tracking system should be consistent nationally and submitted in summary form. For example, Regions, States and POTWs would all need to report industrial user compliance by industry category. There is

generally not a need for detailed raw data at the National level. The consensus of opinion of the OWEP personnel was that EPA Headquarters should require a uniform type of summary information from EPA Regions and/or States to provide the data necessary to support the needs of a nationwide pretreatment tracking system. Further, EPA Regions and/or States should also be able to supply, and the tracking system should be flexible enough to incorporate, future pretreatment information needs.

Another issue discussed during the interview of EPA Headquarters personnel was the type of system (i.e., manual vs. computerized) needed to maintain the National pretreatment tracking system. The majority of personnel felt that a computerized-type of system would be desirable over a manual-type of tracking system at the EPA Headquarters level. However, there was no strong opinion as to whether the information contained in summary reports should be submitted via computer, similar to the PCS system, or manually via periodic reports, by EPA Regions or States to EPA Headquarters.

There are several issues regarding the quality of data that will be maintained in the pretreatment tracking system. First, it was generally felt that some level of data quality control was needed to ensure consistency within the system. However, the data in the tracking system would need not be of the quality so as to support direct enforcement against noncomplying States,

POTWs, or industrial users. The tracking system would primarily be utilized to identify areas where follow-up actions (i.e., sampling, inspections, audits) were necessary. Further, it was felt that confidentiality was not a concern regarding the data maintained in a pretreatment tracking system. The use of the system and data contained in it would not need to be restricted to the parties supplying data to the system (i.e., EPA Regions and States). In fact, most OWEP personnel interviewed suggested that the exchange of data contained in the tracking system between EPA Regions and States could be of use during pretreatment program implementation.

The second issue regarding data quality is the timeliness of data maintained on the tracking system. Needs varied among EPA Headquarters personnel as to how current the data in the tracking system should be. Some felt that to be of use for continual oversight of the pretreatment program, frequent updates (i.e., monthly or quarterly) were necessary. Alternatively, several people felt that too frequent an update of the tracking system would be burdensome on EPA Regions and/or States, and the annual or semi-annual updates would suffice.

In terms of resources, the overall opinion was that costs related to the development of a National tracking system be kept low. Most personnel felt that the tracking system was important enough to develop, but given already limited resources to oversee

the National pretreatment program, the expenditure of significant resources for the system may not be available at the present. Based also upon the resources currently available to OWEP, it was felt that from one-half to one man years worth of current effort was a reasonable cost for maintenance of a tracking system at EPA Headquarters.

The remaining issues discussed with OWEP include system response and compatibility with other systems. As for system response, the majority of personnel found it sufficient to have response to a system request in at least 24-hours. However, some personnel would sacrifice data volume for quick-response access (i.e., terminal access) to data maintained in the system. As for system compatibility, the majority of personnel felt that the pretreatment tracking system should be compatible with existing EPA data bases. In particular, it was felt that compatibility with the OWEP PCS system was most important because of the data on POTWs already maintained in PCS. Compatibility with other EPA data management systems (i.e., the Industrial Facilities Data Base and Grants Information Control System) was felt to be not as important at the present.

Based upon interview responses, it appears that a simple computerized tracking system would be adequate for OWEP purposes. In summary, this is based on the following factors:

- Data in summary form would be adequate for the system,

opposed to detailed raw data

- Computerization of the system is desired for EPA Headquarters over a manually maintained system
- Checks on data quality are needed to ensure consistency and validity, however, the would never be directly used as the sole basis of enforcement actions against Control Authorities or industrial users
- Access to data maintained in the system does not have to be restricted from or between EPA Regions and States
- Updates of the system can occur on a semi-annual or annual basis (although several people would prefer quarterly updates)
- Low cost system development and maintenance is desired
- Quick response access (i.e., less than 24-hour) is not necessarily needed.

3. PRETREATMENT TRACKING NEEDS OF EPA REGIONS AND STATES

A National pretreatment tracking system will serve a variety of needs at EPA Headquarters. However, such a system will be primarily supported by data and information collected by EPA Regions and delegated States. In an effort to determine how the tracking system could serve EPA Regions and States, consideration of pretreatment tracking system needs and the current operating environment at EPA Regions and States were reviewed. This section will summarize those needs and current environments for EPA Regions and States, as well as discuss issues related to the development and maintenance of a National pretreatment tracking system. Information from EPA Regions and States was compiled from knowledge of Regional and State pretreatment programs and from telephone inquiries to selected Region and State pretreatment program contacts. Those EPA Region and State contacts, selected by OWEP Enforcement Division personnel, are presented in Attachment B. Those interviewed were selected because of knowledge of the pretreatment program and not necessarily a knowledge of EPA data systems.

3.1 EPA REGIONS AND STATE INFORMATION NEEDS

Due to the fact that EPA Regions and States each implement their respective pretreatment programs differently, an overall consensus of all priority pretreatment information needs could not be identified. However, there were two general information

needs which were common to all Regions and States:

- Determining POTW compliance with pretreatment program implementation requirements
- Determining industrial user compliance with applicable pretreatment standards and requirements.

The need for determining industrial user compliance varied among those contacted. For instance, some Regions and States only wished to consider tracking specific compliance information for those industrial users for which they are the Control Authority (i.e., in the absence of an approved POTW program). Alternatively, other Regions and States felt it was necessary to track the compliance of all industrial users within the Region or State including those industrial users regulated by an approved POTW pretreatment program and industrial users for which the Region or State are the Control Authority. Further, in terms of industrial user compliance, most Regions and States emphasized determining compliance with only categorical standards and requirements as opposed to categorical and local discharge standards and requirements.

The general information needs of EPA Regions and States that would be supported by a National pretreatment tracking system vary slightly from those needs of EPA Headquarters. Specifically the needs of Regions and States are focused primarily to determining POTW and industrial user compliance within their Region and State. Additional information contained in a tracking system (i.e., information from other Regions and States) would

not be utilized in the day-to-day oversight of POTWs and industrial users.

The only other information need that was suggested by EPA Regions was that of determining State pretreatment program effectiveness in oversight of Control Authority pretreatment programs, and industrial users in the absence of approved Control Authority programs. However, due to the status of State program delegation across the EPA Regions (i.e., EPA Region VI has no approved State programs), not all EPA Regions would need a tracking system to support this need.

3.2 DESCRIPTION OF PRETREATMENT TRACKING DATA ELEMENTS

Based upon the general information needs identified by EPA Regions and States, an attempt was made to describe the potential measurements that would be required to support the tracking system needs of EPA Regions and States. Appendix C presents a summary of the potential measurements that would be associated with each tracking system need.

The specific data elements within each potential measurement, needed to support the information needs of EPA Regions and States (i.e., determining POTW compliance with implementation requirements, determining industrial user compliance with applicable pretreatment standards and requirements, and determining State pretreatment program effectiveness) also varied among those Regions and States

contacted. Generally, however, most Regions and States felt it necessary to track data generated as a result of their oversight activities. This includes data contained in POTW annual reports, data generated during POTW audits and PCIs, data contained in industrial user self-monitoring reports, and data generated during industrial user inspections and sampling. Again specific data elements for each oversight activity that should be tracked did vary among each Region and State. For example, North Carolina, New Jersey, Mississippi, and EPA Region IX felt that it was necessary to track compliance on each industrial user in their State or Region. Alternatively, EPA Regions III, V and VI feel it is only necessary to track summary information by POTW regarding industrial user compliance. Another example of the diversity of data elements required by Regions and States to support essentially the same information need is POTW reporting requirements. As described in Section 1.2.3 and Table 1-5 of this report, these reporting requirements vary in terms of types of data submitted, the level of detail of data submitted, and the frequency with which these POTW reports are required. For instance, North Carolina requires the submission of semi-annual reports which must include, in addition to other data, compliance data on all industrial users regulated by a POTW. EPA Region IX on the other hand requires annual reports from POTWs which must include, in addition to other data, compliance data on all

industrial users regulated by a POTW, as well as quarterly status reports from POTWs which had identified noncomplying industrial users in their annual report.

3.3 DESCRIPTION OF CURRENT OPERATING ENVIRONMENT

Based upon telephone inquiries of the selected Regions and States and existing knowledge, information regarding the current pretreatment data operating environment is summarized in Table 3-1. It is important to note that the information presented in Table 3-1 only summarizes information on some Region and States and thus may not represent all Regions and States involved in pretreatment program implementation and oversight.

As shown in Table 3-1, Regions currently manage the bulk of pretreatment program data manually, although several do utilize some type of computer system to track limited pretreatment data (i.e., Regions II, V, VII and X). Also, some Regions have already begun development of a pretreatment tracking system, primarily on personal computers, that will support their current needs of POTW and industrial user oversight. Many States have already developed, and are currently maintaining, computerized data management systems for data generated from implementation of their pretreatment programs. State computer data management systems for pretreatment are normally maintained as a component of an existing computer data system (i.e., PCS, STORET, State mainframes). Further, both Regions and States as a whole appear

TABLE 3-1. SUMMARY OF EPA REGIONS AND STATES CURRENT PRETREATMENT DATA MANAGEMENT SYSTEMS
(As of 12/31/85)

State	Current Type of Pretreatment Data Management System	Comment
Connecticut	Manual	State operated pretreatment program
New York	Manual/Computerized	Use PCS to track POTW program audits and inspections
New Jersey	Computerized	Use PCS for tracking permit status of IUs outside of approved POTW programs. Also maintain data management system on State mainframe to track data generated by IUs and POTWs
North Carolina	Computerized	Use an EPA tracking system to track data generated by both IUs and POTWs
Ohio	Computerized	Use State mainframe to track IU data
California	Manual/Computerized	Use spread sheet to track general audit activity. Considering expansion of State system to incorporate pretreatment data.
South Carolina	Manual	
Illinois	Computerized	Track data by POTW only
Indiana	Computerized	
Mississippi	Computerized	Currently utilize a system similar to PCS on the State mainframe. Currently in the process of converting over to PCS system entirely.
Region		
I	Manual/Computerized	Use PCS to track POTW program audits and inspections
II	Computerized	Use computer system to track IU compliance
III	Manual/Computerized	Use PCS to track POTW program audits and inspections
V	Manual/Computerized	Use IBM PC to track general POTW data and categorical IU compliance data. Also use PCS to track POTW program audits and inspections.
VI	Manual/Computerized	Use PCS to track POTW program audits and inspections
VII	Manual	
VIII	Manual/Computerized	Use word processing - type system to track general POTW data
IX	Manual	Currently developing system for a PC to track POTW and IU data
X	Manual/Computerized	Use PCS to track POTW annual report activities. Currently planning development of system for IBM PC to track POTW data

to utilize PCS to at least track POTW audit and inspection activities. This may be a result of recent EPA Headquarters policy regarding the use of PCS this year by Regions and delegated States.

Because most EPA Regions and delegated States have essentially just begun pretreatment program oversight activities, estimates of workloads and resources associated with pretreatment program data management were not readily available. The workloads at a given Region or State will partially be dependent upon the level at which they are involved in pretreatment program oversight. Again, for those Regions and States that desire to track industrial user compliance at the industrial user level, more resources would be required as opposed to a Region or State that desires to track industrial user compliance at the POTW level. Other oversight activitites by Regions and States such as POTW audits, PCIs, industrial inspections, and annual report requirements, will also affect workloads associated with tracking data generated from these activities. For example, if a Region or State desired to track specific results of a POTW audit or PCI, the associated workloads would be greater than that required to merely track whether or not a POTW audit or PCI was performed. Finally, the workloads associated with pretreatment data management will depend upon the number of POTWs and industrial users within a given EPA Region or delegated State. For example,

as shown in Table 1-1, EPA Region X is responsible for direct oversight of 24 POTW pretreatment programs and one State pretreatment program (Oregon). Alternatively, EPA Region VI has no delegated States and is responsible for direct oversight of 123 POTW pretreatment programs.

As with workloads, the resources associated with pretreatment program data tracking will partially depend upon the complexity of Region or State oversight. Three states (North Carolina, Ohio, and New Jersey) that have been utilizing pretreatment data systems for some period of time have estimated that approximately 1-2 man-years worth of effort in each State is spent on maintenance of their systems. It should be noted that these States do track data at the industrial user level and would expand existing systems if the capability existed.

3.4 ISSUES RELATED TO A NATIONAL PRETREATMENT TRACKING SYSTEM

During the telephone inquiries of the selected EPA Regions and States, issues related to the development and implementation of a National pretreatment tracking system were discussed. Following is a brief summary of the responses from Regions and States on these issues.

Generally it was felt that a National pretreatment tracking system was needed. However, most Regions and States did not feel that it should be mandatory to supply data to a National tracking system, especially if the tracking system could not serve their

needs. This was especially true for Regions and States that did not want to duplicate current pretreatment tracking efforts just for a National system. Alternatively, Regions and States that are just beginning to develop and implement oversight activities felt that if the tracking system requirements were developed soon enough, they could be incorporated into their current tracking system development activities. If the National system requirements were not developed in the near future, however, then they would be less receptive to changing existing systems to conform with the National system.

As described throughout this chapter, the types of data that would be required in a National tracking system to support the information needs at EPA Regions and States vary among each Region and State. Some felt that if a National system was developed, only summary type data should be tracked. Others felt that a National pretreatment tracking system should have the ability to track data at the industrial user level.

An issue that appeared to be of concern, especially for EPA Regions, was that of consistency of data that would be tracked Nationally. In particular, definitions for "noncompliance" and "significant industrial user" would first have to be provided to ensure consistency of the data tracked. Several Regions (EPA Regions VI and IX) have already found consistency to be a problem in POTW reporting requirements, and have prepared guidance for

POTWs on definitions for noncompliance and significant industrial user. EPA's "Pretreatment Compliance Monitoring and Enforcement Guidance", recently issued by OWEP's Enforcement Division, will assist in clarifying these and other definitions that will be necessary to ensure the consistency of data collected for the National system.

Other issues directly related to the development of a pretreatment tracking system include timeliness of data, system access, compatibility with other systems, and system flexibility. Although opinions varied, it was generally felt that if a National pretreatment tracking system was going to assist Regions and States, system updates would have to occur more than once a year. Quarterly updates of the system would probably fulfill many of the Regions and States needs. In terms of system access, all Regions and States felt it necessary to have the National pretreatment tracking system be user friendly so that access would not be restricted to only those responsible for maintenance of the system. Further, most Regions and States felt that system access need not be restricted from or between EPA Regions and States. Regions and States felt that terminal access to the system, opposed to batch job requests, would be desirable and sometimes necessary to adequately oversee local pretreatment program activities. For those Regions and States that currently maintain pretreatment data tracking systems, compatibility with

their current system was desired so as to avoid duplication of efforts. Utilization of the OWEP PCS system for the National pretreatment tracking system was thought to be too restrictive as it is currently designed. The primary reason for this was that to obtain outputs from PCS required the use of personnel familiar with PCS operations. Another concern regarding the PCS system as currently designed is that State operated pretreatment programs (40 CFR 403.10(e) States) cannot track industrial inspections for which they have commitments to perform. The current PCS system currently only tracks POTW oversight activities (i.e., PCIs and Audits). Alternatively, a PCS-type system for some Regions and States was desirable because of the greater data storage capabilities which were not available for some States (i.e., North Carolina and New Jersey). Finally it was felt that if support of a National pretreatment tracking system would be required, then the system should have the flexibility to meet the specific needs of the Regions and States providing the support.

Based upon interview responses, it appears that a more complex pretreatment tracking system would be required by Regions and States, in relation to the one required by EPA Headquarters. In summary, this is based on the following:

- Assuming the tracking system would support Regions and States needs, then data would need to be tracked at the industrial user level
- At least quarterly updates of the system would be needed

- Data contained in the system would not need to be kept confidential, thus the system would not need to be restricted from or between EPA Regions and States

- Immediate or on-line access would be desirable

- Compatibility with existing Region and State tracking systems would be desired *

- The system should be flexible enough to meet the needs of all Regions and States.

4. SUMMARY AND CONCLUSIONS

4.1 SUMMARY

The activities at all levels of pretreatment program implementation require various types of information to support them. Based upon the information presented in Chapters 1, 2, and 3 of this report, Attachment D presents an overview of the activities and information needed for pretreatment program implementation.

Figure D-1 in Appendix D provides an overview of the activities and information requirements that a pretreatment tracking system may need to support, for all levels involved in pretreatment program implementation and oversight (i.e., Control Authority, Approval Authority, EPA Regions, and EPA Headquarters). For each level of authority presented in Figure D-1, the primary activities and associated data or information requirements for each activity are shown. Further, Figure D-1 generally shows how the information will flow between the various levels of authority. It is important to note in regard to Figure D-1, that an EPA Region office can, and many currently do, have responsibilities both at the Approval Authority level and at the Regional level. Therefore, the activities and associated information contained at both levels may be combined for a given EPA Region in the absence of delegated State programs.

Figures D-2, D-3, D-4, and D-5 in Appendix D provide a more detailed view of Control Authority, Approval Authority, EPA Regions, and EPA Headquarters activities and information requirements. Specifically, Figures D-2 through D-5 provide the general and specific pretreatment activities that are undertaken at each level of authority, and present for each activity, the primary data that would be needed to support the activity. Further, the data outputs associated with each activity are shown. The activities and associated data inputs and outputs shown in Figures D-2 through D-5, will provide a basis for further evaluation of how a national tracking system can support each level of authority.

4.2 CONCLUSIONS

Overall, the development of a National pretreatment tracking system is thought to be needed by EPA Headquarters, EPA Regions and States. However, the information needs from a National system vary slightly between EPA Headquarters and EPA Regions and States. This variation is inherent in the responsibilities of each in terms of pretreatment program oversight and implementation. In general, EPA Headquarters information needs are related more towards the overall assessment of pretreatment program effectiveness. The needs of EPA Regions and States are more focused on the evaluation of POTW and industrial user compliance with pretreatement program standards and requirements.

Due to these basic differences in information needs, the complexity of the National tracking system will depend upon which general needs will be met by the system. A simple tracking system, in terms of overall size, would probably suffice for EPA Headquarters needs, as well as some Regions and States. This is because only summary data regarding Region, State, POTW, and industrial user activities would be required to support EPA Headquarters needs. Further, as shown in Attachment A, several potential measurements and associated data types could support several different tracking system information needs. Alternatively, a fairly complex system would be required to support the information needs of several EPA Regions and States. This would be due to the fact that some Regions and States have found it beneficial to track data at the industrial user level.

The complexity of a pretreatment tracking system will also depend upon the resources available for its development and maintenance. If resources are limited only a simple system that may only support needs for summary information may be developed. Alternatively, a fairly complex system could be developed that would support more detailed needs of Regions and States, but extensive resources would be required. Finally the resources to maintain a tracking system could also restrict the development of the system. This is particularly true for States, which, based on the telephone inquiries, would be against the expenditure of

additional resources to support a system that would not be of service to them.

Currently, both EPA Headquarters and many EPA Regions and States maintain some type of pretreatment data tracking system. The Permits Division at EPA Headquarters maintains some general and biographical information regarding POTW pretreatment programs on a personal computer. OWEP Enforcement Division tracks POTW pretreatment program audit and inspection activities on PCS. Several States have fairly complex systems that track pretreatment data at the industrial user level. The primary deficiencies of existing tracking systems utilized by Regions and States are lack of flexibility to expand and data storage restrictions. Other States and Regions are in the process of developing their own tracking systems, primarily on personal computers, to meet their own needs. PCS is now utilized by most Regions and States to at least track POTW pretreatment program audits and inspections.

There are many issues related to the development and maintenance of a centralized pretreatment tracking system. Opinions varied among all those contacted for input for this report. Following are brief summaries of these issues.

- System Updates: EPA Regions and States believe that the system would need to be updated frequently (i.e., quarterly or semiannually) to support their needs. EPA Headquarters may not need system updates as frequently (i.e., possibly semiannual or annual).

- Data Forms: EPA Headquarters needs primarily would only require data in summary form. Most EPA Regions and States needs would require data in a more detailed form, in some instances at the industrial user level.

- Data Quality: EPA Headquarters, EPA Regions, and States expresses concerns over consistency and validity of data tracked in the system. This may be more important for EPA Regions and States which may utilize data in the tracking system to pursue enforcement actions against POTWs or industrial users

- System Access: EPA Headquarters, EPA Regions, and States currently do not feel the need to restrict access from or between each other.

- System Response Time: In general, EPA Headquarters did not feel that quick response time (i.e., less than 24-hours) is needed. EPA Regions and States generally felt that quick access or response from the tracking system would be needed.

- System Cost: EPA Headquarters, and EPA Regions and States desired low cost development and maintenance. EPA Regions and States are particularly concerned about the maintenance cost to them if the system does not provide them a service as well.

Ideally, the National pretreatment tracking system could be designed so the needs of EPA Headquarters, EPA Regions, States, and even possibly POTWs, could be met. Realistically, due to the complexity of the pretreatment program and the inconsistency on how the program currently is implemented, design of such a system may be difficult at this time. Several alternatives for a National pretreatment tracking system however, do exist that could to be pursued at this time. These alternatives will be described and evaluated in later sections of the Pretreatment Tracking System Feasibility Study.

ATTACHMENT A

POTENTIAL MEASUREMENTS AND ASSOCIATED DATA TYPES
FOR EPA HEADQUARTERS PRETREATMENT TRACKING INFORMATION NEEDS

SUMMARY OF POTENTIAL MEASUREMENTS FOR EPA HEADQUARTERS
PRETREATMENT TRACKING SYSTEM NEEDS

EPA HEADQUARTERS TRACKING SYSTEM NEEDS*	1.DETERMINE OVERALL EFFECTIVE-NESS OF THE NATIONAL PRETREATMENT PROGRAM	2. EVALUATE EPA REGIONAL OVERSIGHT EFFECTIVE-NESS	2. EVALUATE LOCAL (POTW) PROGRAM EFFECTIVE-NESS	2. DETERMINE INDUSTRIAL USER COMPLIANCE WITH CATEGORICAL STANDARDS	3. EVALUATE STATE PROGRAM EFFECTIVE-NESS	4. DETERMINE INDUSTRIAL USER COMPLIANCE WITH LOCAL LIMITS	5. DEVELOP ENFORCEMENT STRATEGIES	6. DETERMIN INDUSTRIAL USER COMPLIANCE WITH SELF-MONITORING REQUIREMENT
POTENTIAL MEASUREMENTS								
POTW BIOGRAPHICAL DATA	X							
INDUSTRIAL USER COMPLIANCE DATA	X	X	X	X	X	X	X	X
POTW PRETREATMENT COMPLIANCE INSPECTION (PCI) RESULTS	X		X				X	
POTW PRETREATMENT PROGRAM AUDIT RESULTS	X		X				X	
IMPROVEMENT OF LOCAL CONDITIONS	X							
OVERSIGHT ACTIVITIES OF POTW PRETREATMENT PROGRAMS		X			X			
DELEGATED STATE PRETREATMENT PROGRAM AUDIT ACTIVITIES		X						
CONTROL AUTHORITY IMPLEMENTATION BY THE APPROVAL AUTHORITY		X			X			
POTW ANNUAL REPORT RESULTS					X			
STATE PRETREATMENT PROGRAM AUDIT RESULTS					X			
UNIQUE POTW DATA								

*In Order of Relative Importance for OWEP - Enforcement and Permits Division (See Table 2-1.)

Tracking System Objective: Determine Overall Effectiveness of National Program

Priority Ranking: 1

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. POTW Biographical Data

   - POTW Name
   - POTW Address
   - NPDES Permit Number
   - Total POTW Flow
   - Percent Industrial Flow
   - Date Program Submitted
   - Date Program Approved
   - Number of Categorical Industries by Category
   - Number of Significant Noncategorical Industries
   - Removal Credit Application Date
   - Removal Credit Approval Date

2. Industrial User Compliance Data

   - Number of IUs Subject to Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance With Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance with Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number/Percent of IUs Demonstrating Significant Noncompliance

3. POTW Pretreatment Compliance Inspection (PCI) Results

   - PCI Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IUs Demonstrating Significant Noncompliance
   - Type of Enforcement Follow-up Taken By Approval Authority

4. POTW Pretreatment Program Audit Results

- Audit Date
- Number of Categorical IUs
- Number of Significant Noncategorical IUs
- Legal Authority Adequacy
- Number/Percent IUs Without Control Mechanisms
- Number/Percent IUs Not Inspected Within Past Year
- Number/Percent IUs Not Sampled Within Past Year
- Number/Percent of IU's Demonstrating Significant Noncompliance
- Annual Funding of the POTW Pretreatment Program
- FTEs Committed to the POTW Pretreatment Program
- Audit Results (i.e., Adequacy of POTW Legal Authority, Compliance Monitoring and Enforcement, Resources, etc.)
- Type of Approval Authority Follow-up (i.e., Enforcement)

5. Environmental Impact Results

- Sludge Quality and Disposal
  - Method of Disposal
  - Priority Pollutant Concentrations
- NPDES Permit Compliance
  - Total Number of Permit Violations
  - Number Contributed to by IUs
- Treatment Plant Inhibition/Interference
  - Number of Incidents in Past Year
- Priority Pollutant Loadings
  - Average Influent Concentation
  - Average Effluent Concentration

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or IU level).

Tracking System Objective: Evaluate EPA Regional Oversight Effectiveness

Priority Ranking: 2

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. Oversight Activities of POTW Pretreatment Programs

   - Number of PCIs Performed
   - POTWs for Which PCIs Have Been Performed
   - Dates of PCIs Performed
   - Enforcement Actions Taken as a Result of PCIs (i.e., Number of Administrative Orders Issued, Number of Compliance Schedules Issued)
   - Number of Audits Performed
   - POTWs for Which Audits Have Been Performed
   - Dates of Audits Performed
   - Enforcement Actions Taken as a Result of Audits (i.e., Number of Administrative Orders Issued, Number of Compliance Schedules Issued)
   - Number of POTWs Required to Submit Annual Reports
   - Number of Annual Reports Received/Reviewed

2. Industrial User (IU) Compliance Data (by Category)

   - Number of IUs Subject to Categorical Standards (by Category)
   - Number/Percent of IUs in Compliance With Categorical Standards (by Category)
   - Number/Percent of IUs in Compliance With Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number/Percent of IUs Demonstrating Significant Noncompliance

3. Delegated State Pretreatment Program Audit Activities

   - Number of State Audits Performed
   - States for Which Audits Have Been Performed
   - Dates of State Audits Performed
   - Enforcement Actions Taken as a Result of the State Audits

4. Control Authority Implementation by the Approval Authority

- Number of Categorical IUs Regulated (By Category)
- Number of Noncategorical (Significant) IUs
- IU Compliance Status
- Inspection and Sampling Activities (i.e., Percent of IUs Monitored)

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Evaluate POTW Program Effectiveness

Priority Ranking: 2

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. Industrial User Compliance Data

   - Number of IUs Subject to Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance With Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance with Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number/Percent of IUs Demonstrating Significant Noncompliance

2. Environmental Impact Results

   - Sludge Quality and Disposal
     - Method of Disposal
     - Priority Pollutant Concentrations
   - NPDES Permit Compliance
     - Total Number of Permit Violatins
     - Number Contributed to by IUs
   - Treatment Plant Inhibition/Interference
     - Number of Incidents in Past Year
   - Priority Pollutant Loadings
     - Average Influent Concentation
     - Average Effluent Concentration

3. POTW Pretreatment Compliance Inspection (PCI) Results

   - PCI Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IUs Demonstrating Significant Noncompliance
   - Type of Enforcement Follow-up Taken By Approval Authority

4. POTW Pretreatment Program Audit Results

- Audit Date
- Number of Categorical IUs
- Number of Significant IUs
- Legal Authority Adequacy
- Number/Percent IUs Without Control Mechanisms
- Number/Percent IUs Not Inspected Within Past Year
- Number/Percent IUs Not Sampled Within Past Year
- Number/Percent of IU's Demonstrating Significant Noncompliance
- Annual Funding of the POTW Pretreatment Program
- FTEs Committed to the POTW Pretreatment Program
- Audit Results (i.e., Adequacy of POTW Legal Authority, Compliance Monitoring and Enforcement, Resources, etc.)
- Type of Approval Authority Follow-up (i.e., Enforcement)

5. POTW Annual Report Results

- Date Annual Report Required
- Date Annual Report Received
- Number of IU Inspections Performed
- Number of POTW Sampling Events Performed
- Number of IUs Subject to Categorical Standards
- Percent IUs in Compliance With Categorical Standards
- Percent IUs in Compliance With All Applicable Standards

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Determine IU Compliance With Categorical Standards

Priority Ranking: 2

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. Industrial User Compliance Data

   - Number of IUs Subject to Categorical Standards (By Category)
   - Number of IUs in Compliance With Categorical Standards (By Category)
   - Number of IUs in Compliance with Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Categorical IUs Demonstrating Significant Noncompliance

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Evaluate State Program Effectiveness

Priority Ranking: 3

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. Oversight Activities of POTW Pretreatment Programs

   - Number of PCIs Performed
   - POTWs for Which PCIs Have Been Performed
   - Dates of PCIs Performed
   - Enforcement Action Taken
   - Number of Audits Performed
   - POTWs for Which Audits Have Been Performed
   - Dates of Audits Performed
   - Enforcement Action Taken
   - Number of POTWs Required to Submit Annual Reports
   - Number of Annual Reports Received/Reviewed

2. Industrial User (IU) Compliance Data

   - Number of IUs Subject to Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance With Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance with Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number/Percent of IUs Demonstrating Significant Noncompliance

3. State Pretreatment Program Audit Results

   - Audit Data
   - Number of PCIs Performed
   - Type of State Follow-up
   - Number of Audits Performed
   - Types of State Follow-up
   - Number of POTW Annual Reports Received
   - Number of Annual Reports Reviewed
   - Number of Independent IU Compliance Inspections Performed
   - Number of Categorical Industrial Users Where State is Control Authority
   - Number of Permits Issued by the State
   - Number of Compliance Monitoring Events Performed by the State

4. Control Authority Implementation by the Approval Authority

- Number of Categorical IUs Results (By Category)
- Number of Noncategorical (Significant) IUs
- IU Compliance Status
- Inspection and Sampling Activities (i.e., Percent of IUs Monitored

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Determine IU Compliance With Local Limits

Priority Ranking: 4

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. Industrial User Compliance Data

   - Number of IUs Subject to Local Limits
   - Number of IUs in Compliance With Local Limits
   - Number of IUs Demonstrating Significant Noncompliance

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Develop Enforcement Strategies

Priority Ranking: 5

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. IU Compliance Data

   - Number of IUs Subject to Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance With Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance with Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number/Percent of IUs Demonstrating Significant Noncompliance

2. POTW Pretreatment Compliance Inspection (PCI) Results

   - PCI Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IUs Demonstrating Significant Noncompliance
   - Type of Enforcement Follow-up Taken By Approval Authority

3. POTW Pretreatment Program Audit Results

   - Audit Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Legal Authority Adequacy
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IU's Demonstrating Significant Noncompliance
   - Annual Funding of the POTW Pretreatment Program
   - FTEs Committed to the POTW Pretreatment Program
   - Audit Results (i.e., Adequacy of POTW Legal Authority, Compliance Monitoring and Enforcement, Resources, etc.)
   - Type of Approval Authority Follow-up (i.e., Enforcement)

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU Level).

Tracking System Objective: Determine Industrial User Compliance with Self-Monitoring Requirements

Priority Ranking: 6

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. Industrial User Compliance Data

   - Number of IUs Subject to Self-Monitoring Requirements
   - Number of IUs in Compliance With All Self-Monitoring Requirements

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the POTW level).

Tracking System Objective: Evaluate/Refine Existing Programs

Priority Ranking: 7

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. POTW Biographical Data

   - POTW Name
   - POTW Address
   - NPDES Permit Number
   - Total POTW Flow
   - Percent Industrial Flow
   - Date Program Submitted
   - Date Program Approved
   - Number of Categorical Industries by Category
   - Number of Significant Noncategorical Industries
   - Removal Credit Application Date
   - Removal Credit Approval Date

2. Industrial User Compliance Data

   - Number of IUs Subject to Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance With Categorical Standards (By Category)
   - Number/Percent of IUs in Compliance With Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant (Noncategorical) IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number/Percent of IUs Demonstrating Significant Noncompliance

3. POTW Pretreatment Compliance Inspection (PCI) Results

   - PCI Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IUs Demonstrating Significant Noncompliance
   - Type of Enforcement Follow-up Taken By Approval Authority

4. POTW Pretreatment Audit Results

- Audit Date
- Number of Categorical IUs
- Number of Significant Noncategorical IUs
- Legal Authority Adequacies
- Number/Percent IUs Without Control Mechanisms
- Number/Percent IUs Not Inspected Within Past Year
- Number/Percent IUs Not Sampled Within Past Year
- Number/Percent of IU's Demonstrating Significant Noncompliance
- Annual Funding of the POTW Pretreatment Program
- FTEs Committed to the POTW Pretreatment Program
- Audit Results (i.e., Adequacy of POTW Legal Authority, Compliance Monitoring and Enforcement, Resources, etc.)
- Type of Approval Authority Follow-up (i.e., Enforcement)

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Allocate EPA Resources

Priority Ranking: 8

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. POTW Biographical Data

   - Number of POTW Pretreatment Programs Required
   - Number of POTW Programs Where EPA is Approval Authority
   - Number of Approved POTW Programs Where EPA is Approval Authority
   - Number of Removal Credit Applications Received
   - Number Removal Credit Applications Approved

2. Oversight Activities of POTW Pretreatment Programs

   - Number of PCIs Conducted
   - Number of Audits Conducted
   - Number of Annual Reports Received
   - Number of Annual Reports Reviewed

3. Control Authority Implementation By the Approval Authority

   - Number of Regulated IUs Where Region is Control Authority
   - Number of Industrial User Compliance Inspections Performed

4. Delegated State Pretreatment Program Audit Activities

   - Number of State Audits Performed
   - States for Which Audits Have Been Performed
   - Dates of State Audits Performed
   - Enforcement Actions Taken as a Result of the State Audits

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Make National Policy Decisions

Priority Ranking: 9

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. POTW Biographical Data

   - POTW Name
   - POTW Address
   - NPDES Permit Number
   - Total POTW Flow
   - Percent Industrial Flow
   - Date Program Submitted
   - Date Program Approved
   - Number of Categorical Industries by Category
   - Number of Significant Noncategorical Industries
   - Removal Credit Application Date
   - Removal Credit Approval Date

2. Industrial User Compliance Data

   - Number of IUs Subject to Catgorical Standards (By Category)
   - Number of IUs in Compliance With Categorical Standards (By Category)
   - Number of IUs in Compliance With Categorical Standard Self-Monitoring and Reporting Requirements
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent of IUs in Compliance With All Applicable Standards
   - Number of IUs Demonstrating Significant Noncompliance

3. Unique POTW Data

   - Quantities of Hazardous Waste Received
   - Basis for Local Limits
   - Sludge Disposal Methods
   - Summary of POTW Interference Problems
   - Summary of POTW Pass Through Problems

*The amount of data collected for each measurement and data type may depend onthe level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

Tracking System Objective: Develop National Guidance

Priority Ranking: 10

Potential Measurements and Associated Data Types (In Order of Relative Importance)*

1. POTW Pretreatment Compliance Inspection (PCI) Results

   - PCI Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Total Number of Regulated IUs
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IUs Demonstrating Significant Noncompliance
   - Type of Enforcement Follow-up Taken By Approval Authority

2. POTW Pretreatment Audit Results

   - Audit Date
   - Number of Categorical IUs
   - Number of Significant Noncategorical IUs
   - Legal Authority Adequacy
   - Number/Percent IUs Without Control Mechanisms
   - Number/Percent IUs Not Inspected Within Past Year
   - Number/Percent IUs Not Sampled Within Past Year
   - Number/Percent of IU's Demonstrating Significant Noncompliance
   - Annual Funding of the POTW Pretreatment Program
   - FTEs Committed to the POTW Pretreatment Program
   - Audit Results (i.e., Adequacy of POTW Legal Authority, Compliance Monitoring and Enforcement, Resources, etc.)
   - Type of Approval Authority Follow-up (i.e., Enforcement)

*The amount of data collected for each measurement and data type may depend on the level at which the data will be summarized (i.e., Region, State, POTW, or at the IU level).

ATTACHMENT B

EPA REGION AND STATE CONTACTS

EPA REGION AND STATE CONTACTS

Name	Affiliation
Bob Townsend (for Joe Kelleher)	New York State Department of Environmental Conservation
Ken Goldstein	New Jersey Department of Environmental Protection
Jerry Cain	Mississippi Department of Natural Resources
Doug Finan	North Carolina Department of Natural Resources and Community Development
Ron Duff (for Jeff Barnickol)	California State Water Resources Control Board
Don Schredargus	EPA Region V
Dave Rankin	EPA Region V (formerly with Ohio EPA)
Alicia Diaz-Costa (for Roger Hartung)	EPA Region VI
Keith Silva	EPA Region IX
Bob Robichaud	EPA Region X

ATTACHMENT C

POTENTIAL MEASUREMENTS FOR EPA REGIONS AND STATES
INFORMATION NEEDS

TABLE C-1. SUMMARY OF POTENTIAL MEASUREMENTS FOR EPA REGIONS AND DELEGATED PRETREATMENT STATES PRETREATMENT TRACKING NEEDS

Tracking System Needs	Evaluate Local (POTW) Program Effectiveness	Determine Industrial User Compliance With Categorical Standards	Determine Industrial User Compliance With Local Limits	Determine Industrial User Compliance With Self-Monitoring	Evaluate State Program Effectiveness
Potential Measurements					
POTW Biographical Data	X				
POTW Pretreatment Compliance Inspection (PCI) Results	X	X	X	X	
POTW Pretreatment Program Audit Results	X	X	X	X	
POTW Annual Report Results	X				
Industrial User Compliance Data		X	X	X	
Oversight Activities of POTW Pretreatment Programs					X
State Pretreatment Program Evaluation Results					X
Control Authority Implementation by the Approval Authority		X	X	X	X

ATTACHMENT D

NATIONAL PRETREATMENT TRACKING SYSTEM ACTIVITIES AND DATA REQUIREMENTS

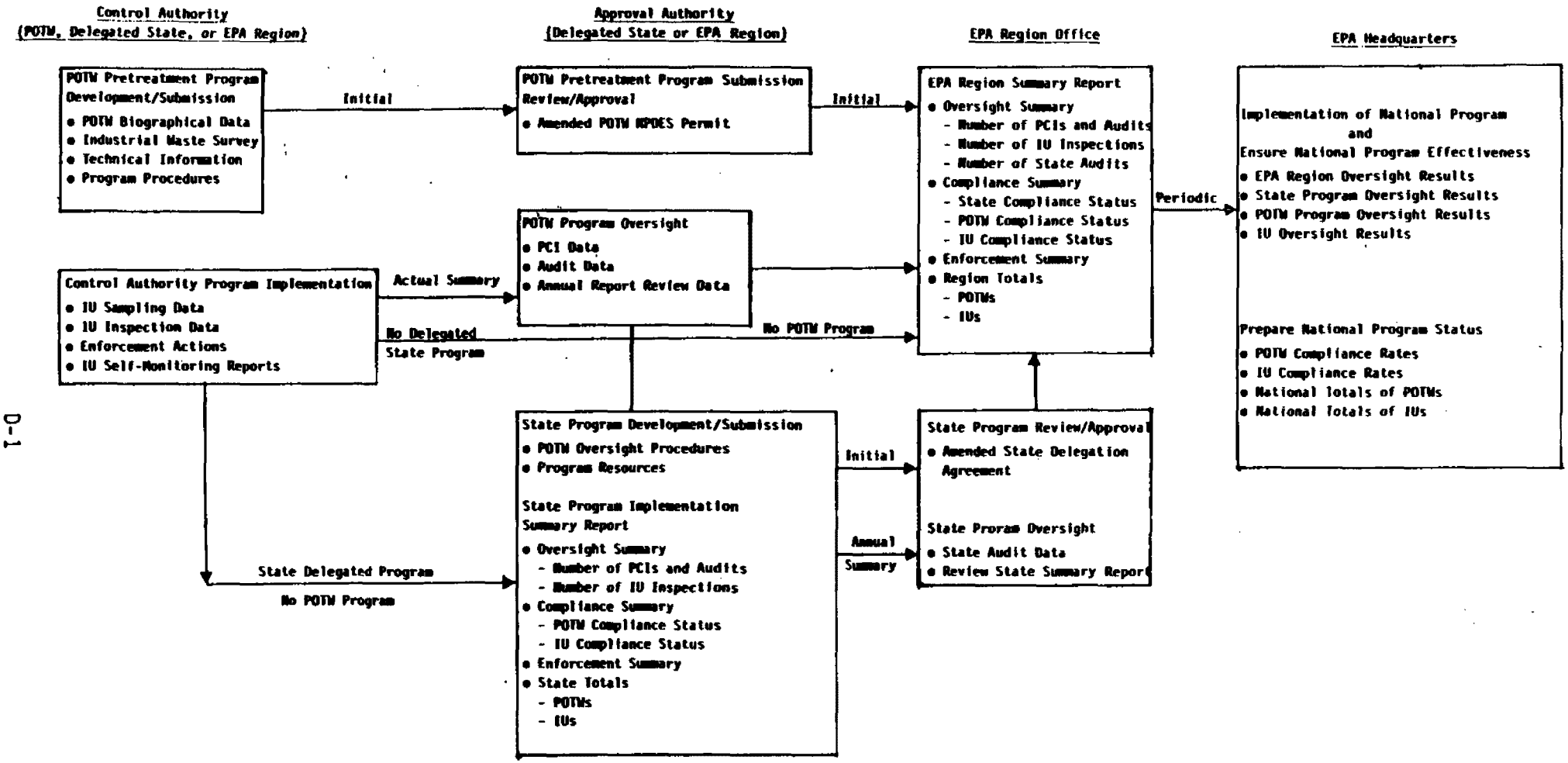


FIGURE D-1. NATIONAL PRETREATMENT TRACKING SYSTEM ACTIVITIES AND INFORMATION REQUIREMENTS OVERVIEW

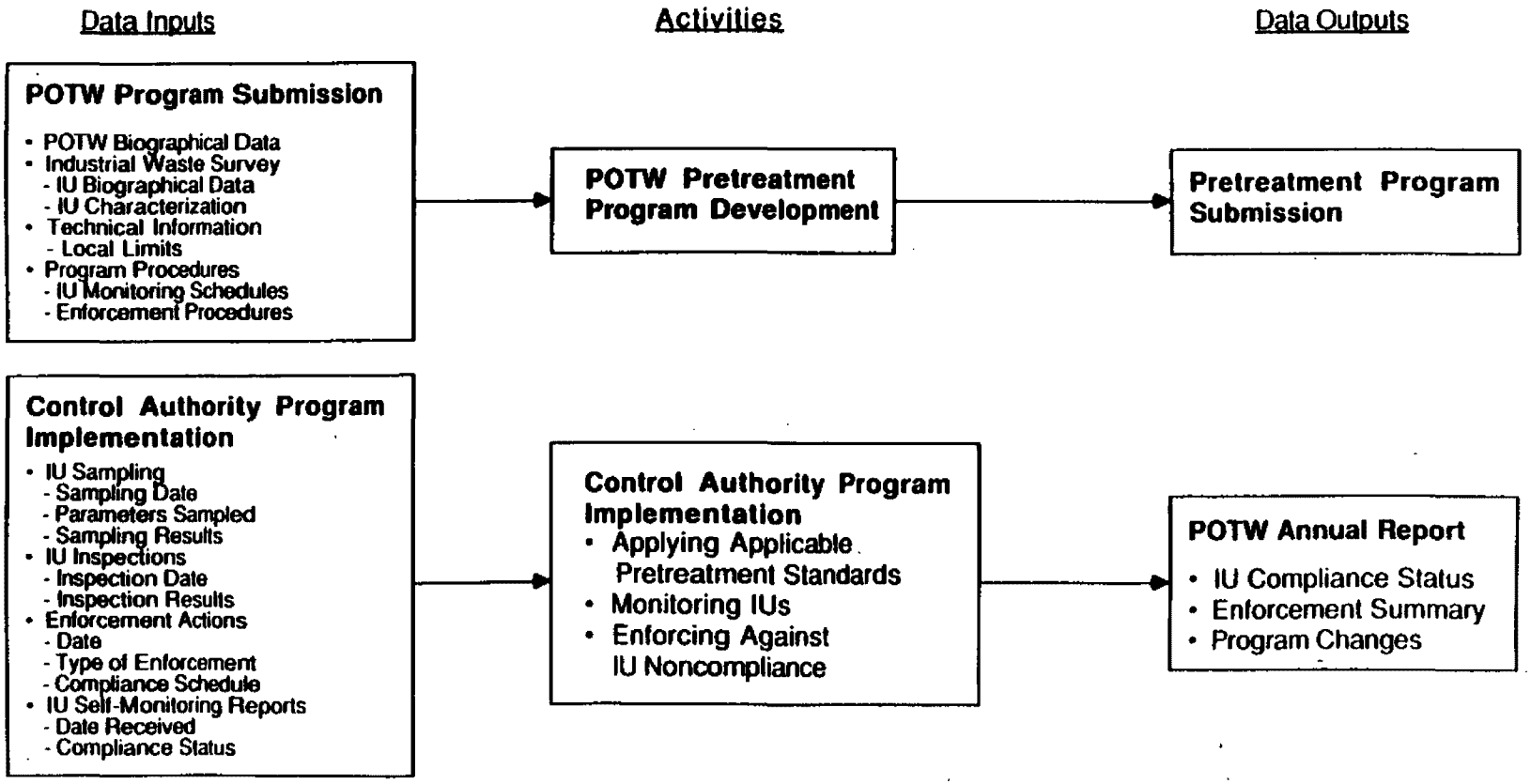


FIGURE D-2. CONTROL AUTHORITY INFORMATION AND DATA PROCESSING FLOW

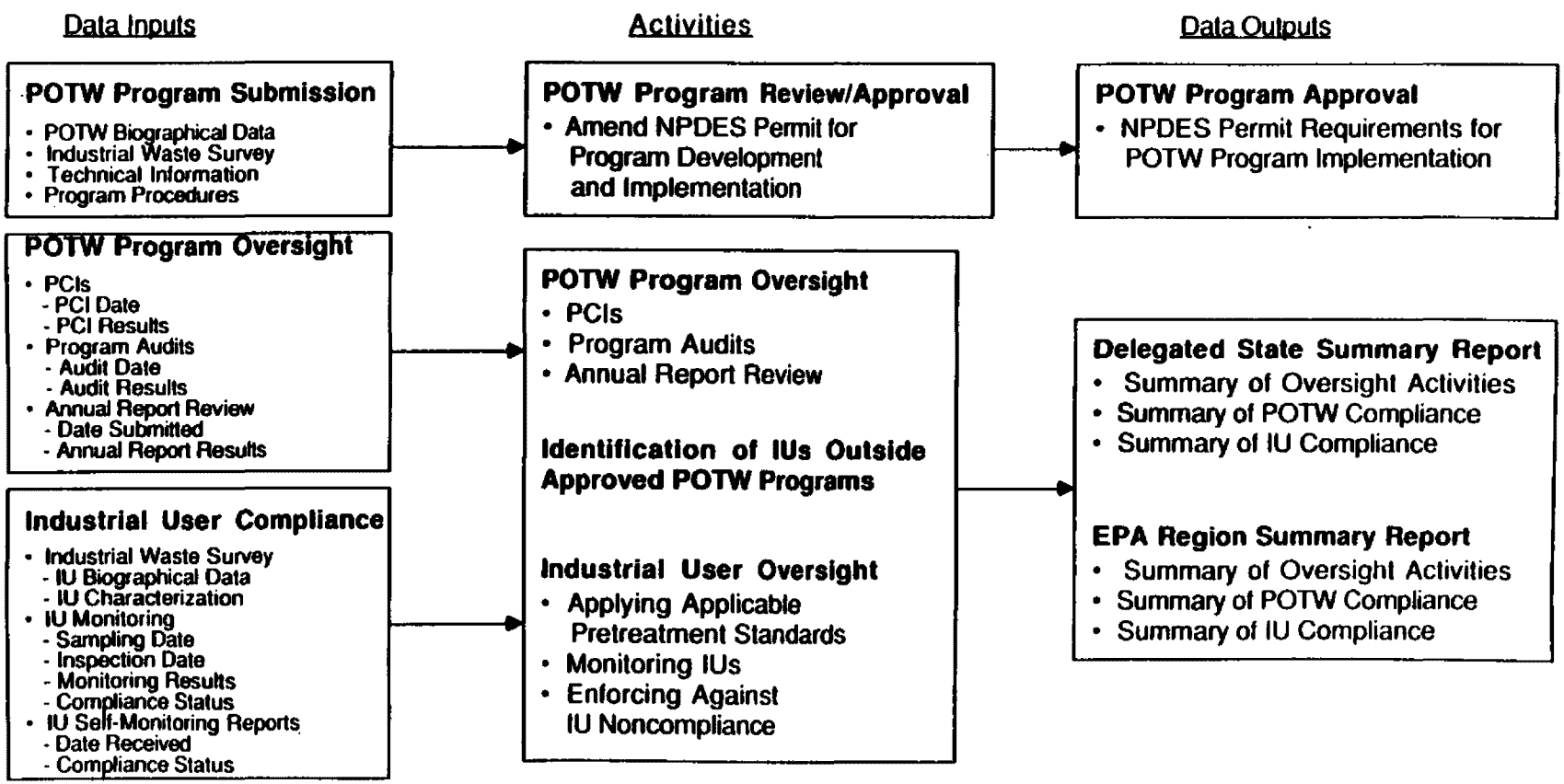


FIGURE D-3. APPROVAL AUTHORITY INFORMATION AND DATA PROCESSING FLOW

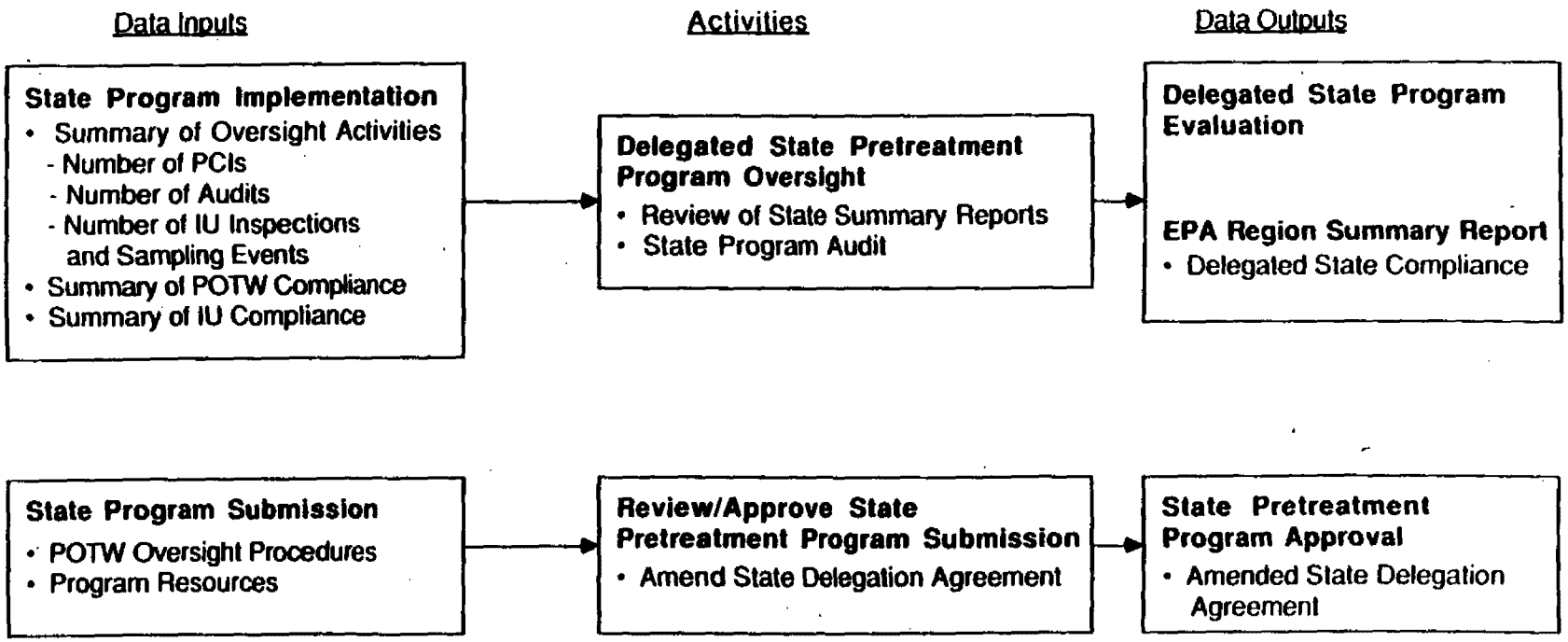


FIGURE D-4. EPA REGION INFORMATION AND DATA PROCESSING FLOW

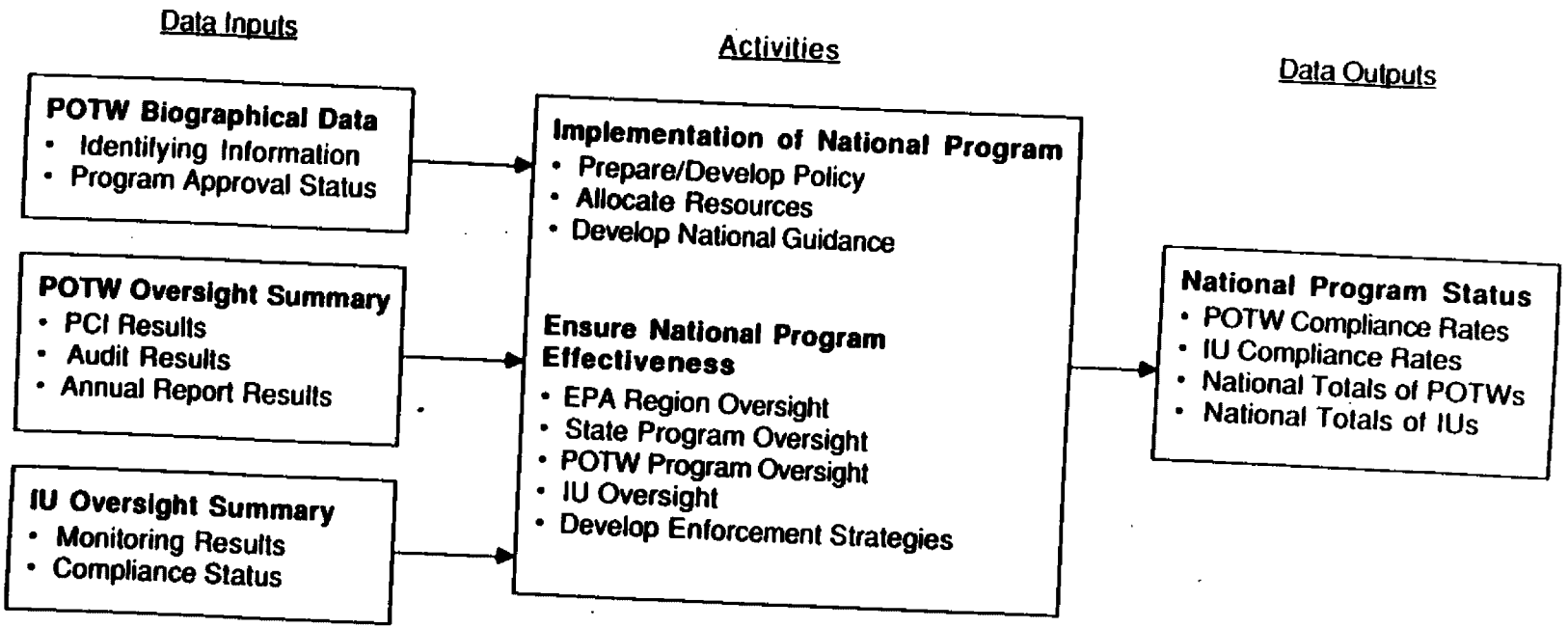


FIGURE D-5. EPA HEADQUARTERS INFORMATION AND DATA FLOW

PART III: EVALUATION OF ALTERNATIVES FOR THE PRETREATMENT PERMITS AND ENFORCEMENT TRACKING SYSTEM

TABLE OF CONTENTS

I. INTRODUCTION AND DESCRIPTION OF PPETS ALTERNATIVES

As a result of the needs expressed by EPA officials in the Summary of Pretreatment Tracking Needs, five possible alternatives were identified for a Pretreatment Permits and Enforcement Tracking System (PPETS). These alternatives cover a wide variety of informational needs and cost constraints. This document evaluates the proposed systems and presents the strengths, weaknesses, and possible impacts of each. The analysis is designed to help EPA decide on the best option to pursue. This is an important step toward an initial system design and full feasibility study.

Section I of this document is divided into five parts, each of which discusses one of the five PPETS alternatives; they are:

- Alternative 1: No National Automated System for Pretreatment Enforcement Tracking
- Alternative 2: EPA Oversight System (Headquarters and Regions)
- Alternative 3: System for Approval Authorities and Higher Levels
- Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)
- Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)

The discussion of each alternative includes a complete written description, a diagram of the major data flows, and an exhibit listing suggested data elements to be tracked.

Section II of the document then analyzes each of the alternatives and compares them using a broad range of criteria. The criteria considered include: tracking system objectives, data availability, system capability, system lifecycle cost, technical capabilities, time frames, change potential, and organizational impact.

Section III presents conclusions about the five Pretreatment Permits and Enforcement Tracking System alternatives. A recommendation is provided about the courses of action EPA may pursue.

A. Alternative 1: No National Automated System for Pretreatment Enforcement Tracking

The status quo for tracking and evaluating the National Pretreatment Program (NPP) partly meets some of the needs identified by EPA Headquarters staff in the Summary of Pretreatment Tracking Needs. Certain needs cannot now be met at all, others can be met manually, and a few can be addressed with the help of existing automated systems.

There are many pretreatment-related information management activities now undertaken at a variety of organizational levels. Most Control Authorities submit Annual Reports to their Approval Authorities. These Annual Reports can vary in content, and may or may not be forwarded to EPA Regional Offices. Approval Authorities also generate data themselves from their POTW oversight activities -- Pretreatment Compliance Inspections (PCIs) and Pretreatment Program Audits. The Approval Authority is required to automate some of the data from both these processes by entering them into PCS.

EPA Headquarters has issued guidances for Annual Reports, PCIs, and Program Audits. There are also suggested formats for Pretreatment Performance Summaries (to be included with Annual Reports), PCI checklists, and Program Audit checklists. However, these formats and guidances are not mandatory, and the actual report contents can vary by Approval Authority.

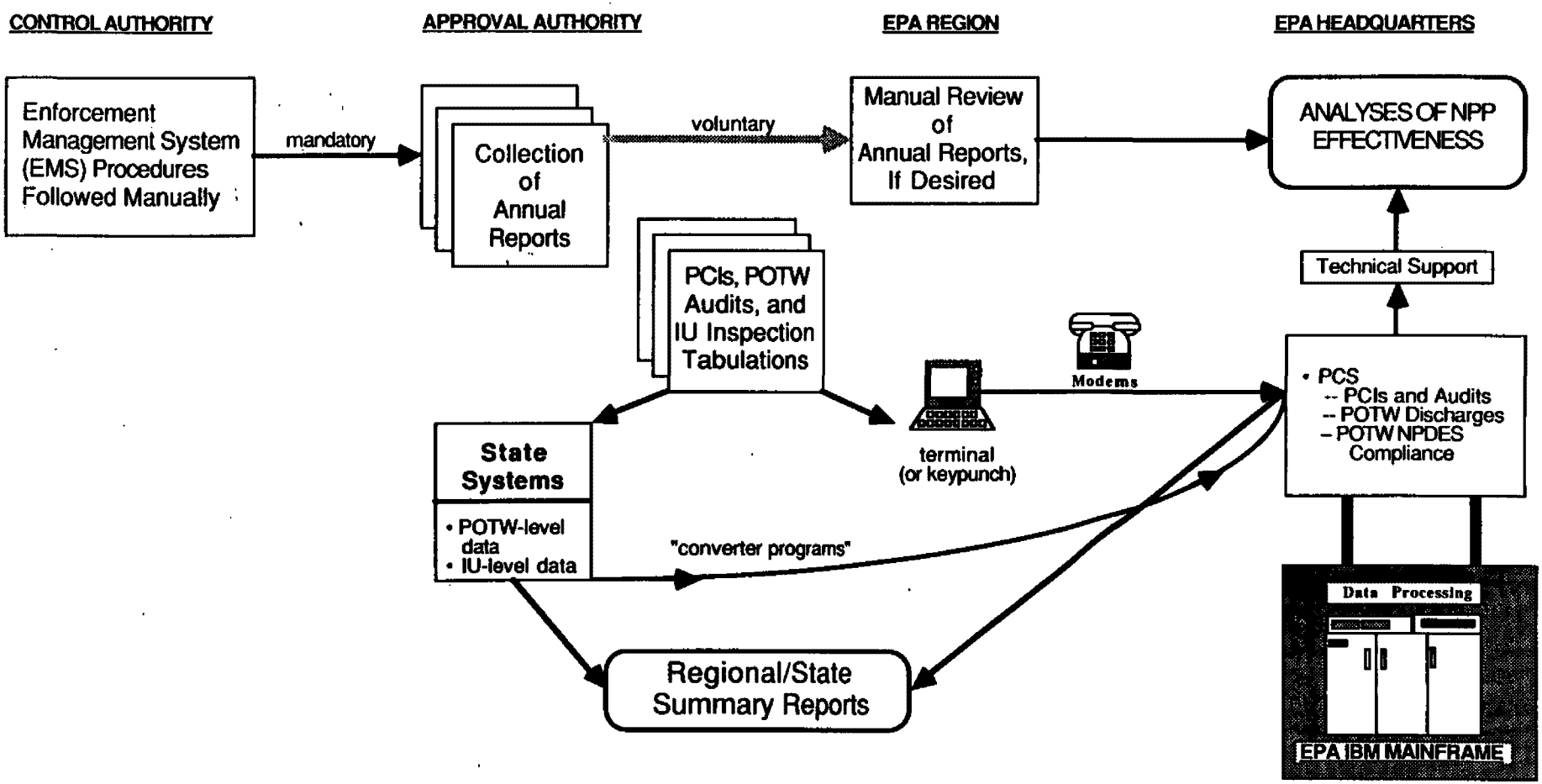
Many of the specific pretreatment tracking needs identified by EPA Headquarters personnel can now be met, though only by manual data collection, tabulation, and analysis. For example, the effectiveness of a set of local POTW programs can be assessed only by manually collecting and examining the Annual Reports, Pretreatment Compliance Inspections (PCIs) and Program Audits. Unfortunately, use of manual procedures is often time consuming, expensive, and subject to significant errors and omissions in spite of the best efforts of EPA, State, and POTW personnel.

Currently, very limited data is stored in PCS about PCIs and Program Audits. This data is not sufficient to support many needs identified by EPA

personnel. For example, determining Industrial User (IU) compliance with categorical standards is a high priority need, but no national totals can be easily developed now for categorical compliance. Similarly, development of enforcement strategies is difficult without national statistics comparing POTW enforcement actions with results at the Industrial User level. These needs could, if necessary, be met through special data collection efforts (e.g., telephone surveys of all EPA Regions), although the resulting information is likely to be incomplete and inconsistent.

In spite of the regular data flows that now exist, the status quo can be characterized as suboptimal for pretreatment tracking. Data are widely dispersed, in varying formats, and are not fully automated. Certain Regions and States have developed their own tracking systems for pretreatment data; some of these systems automate data down to the IU-level. Most POTWs rely on manual systems, and are adapting Enforcement Management System (EMS) principles from the NPDES program according to EPA guidance.

Exhibit I-1A summarizes data flows under the current pretreatment system. Exhibit I-1B shows the general category of pretreatment data currently stored in PCS. A list of all the pretreatment tracking data elements currently stored in PCS is in Appendix A.



ALTERNATIVE 1: NO NATIONAL AUTOMATED SYSTEM FOR PRETREATMENT ENFORCEMENT TRACKING

EXHIBIT I-1A

EXHIBIT I-1B:

Data Contained in Alternative 1

Source: Pretreatment Compliance Inspections and Program Audits

The following data is already contained in PCS:

- Counts of PCIs and Program Audits

B. Alternative 2: EPA Oversight System (Headquarters and Regions)

This alternative addresses the pretreatment tracking requirements to assist the EPA Headquarters and Regions with their oversight roles. For the most part, this alternative does not focus on the more detailed needs of the States and the Approval and Control Authorities.

In particular, this alternative should help EPA:

- Determine Overall Effectiveness of the National Pretreatment Program (NPP)
- Evaluate Regional Oversight Effectiveness
- Assess POTW Enforcement of Pretreatment Regulations
- Determine Overall Industrial User Compliance
- Develop National Policy and Enforcement Strategies

In order to meet these needs, the system will rely on the information in one recently proposed report -- the POTW Pretreatment Performance Summary (PPS). EPA has issued a draft Pretreatment Compliance Monitoring and Enforcement Guidance document which proposes that a PPS be included with each POTW Annual Report submitted to an Approval Authority. The guidance includes a suggested format and a list of the minimal information to be contained in each PPS. The Pretreatment Performance Summary is essentially a one-page statistical summary and contains information on:

- General POTW Characteristics
- Significant Industrial User Compliance
- The POTW's Compliance Monitoring Program
- Enforcement Actions Undertaken by the POTW

These minimal data items, which will be readily available, can help meet many EPA-specific pretreatment tracking needs. It will be necessary, though, to make the information contained in the Pretreatment Performance Summary mandatory, rather than optional. Fully standardized report formats, submission deadlines, and data elements will be needed to support a consistent tracking system.

The proposed system could be implemented on the EPA IBM mainframe and connected to the EPA Regions via terminals and telecommunication lines. The data to be tracked by Alternative 2 will have greater utility when combined with NPDES data already in PCS. In order to ensure complete compatibility between the systems, Alternative 2 should be designed as a separate data file in an expanded PCS.

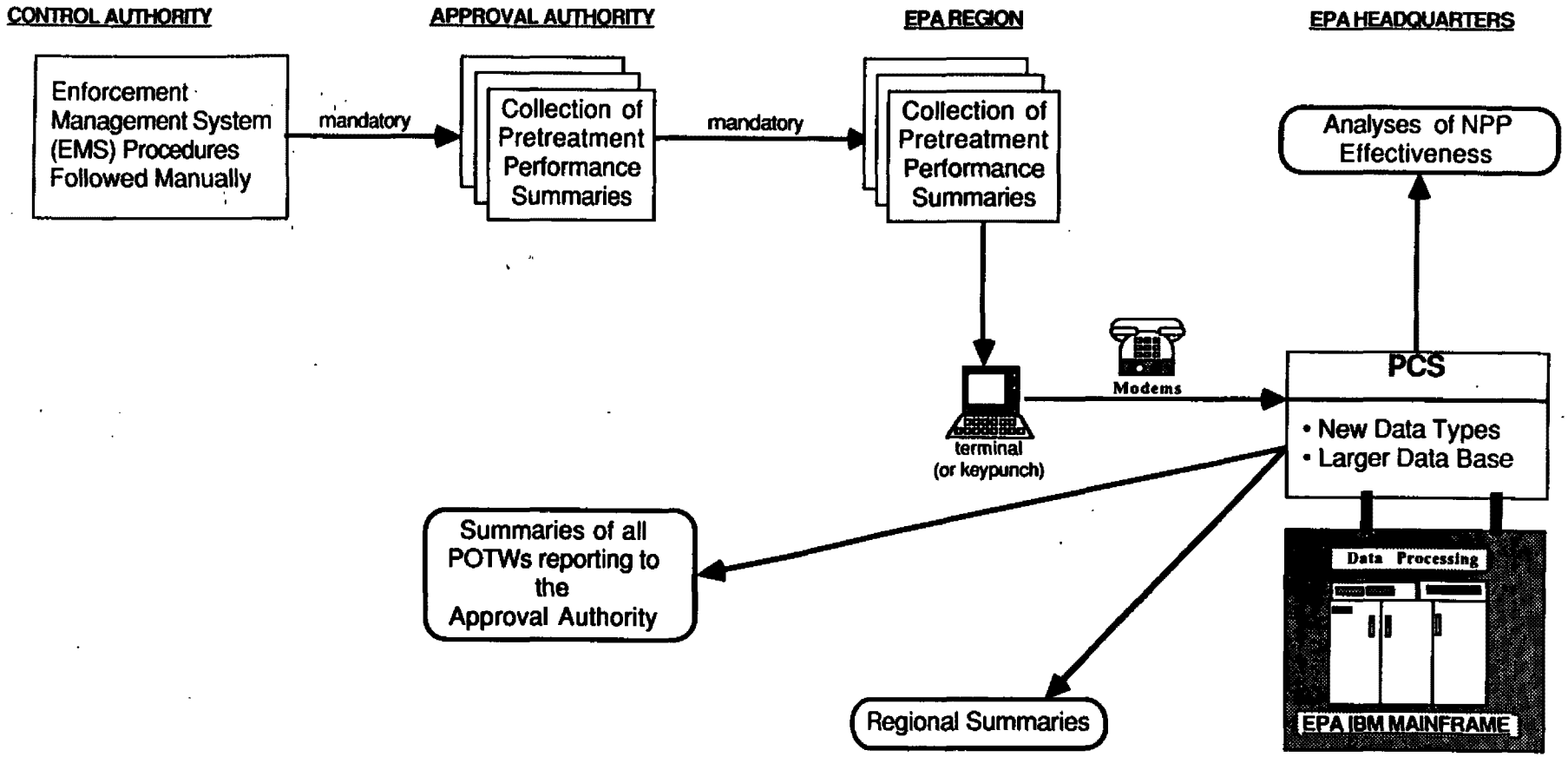
Under this alternative, each EPA Regional Office would be responsible for entering the PPS data for the POTWs within its jurisdiction. User-friendly software procedures will be provided to speed data entry. The number of POTW Pretreatment Performance Summaries to be entered by each Region will vary from about 20 to 400 per year.

This system would provide EPA Headquarters and Regions with periodic reports summarizing the PPS data nationwide, region-wide, statewide, and even by POTW. In addition, users could enter specific queries for data not precisely covered in the summary reports. These user query reports will take less than a day to process, and some may take only a few minutes, depending upon the complexity of the request. Among its uses, this data will help to point out problem areas in pretreatment enforcement and allow EPA to concentrate their efforts in these areas.

Implementation of this proposed system would require several changes in the status quo. For one, it would be crucial for the Pretreatment Performance Summaries to be passed from delegated State Approval Authorities to their responsible EPA Regions. In addition, it will be necessary to require the information on the Pretreatment Performance Summary be compiled at least once a year to be included with the POTW Annual Report. If more frequent data updates are required, some new reporting procedures may have to be established.

A limited tracking system of this sort would require relatively few personnel resources to maintain and almost no purchases of new equipment. The data could also be made available to existing microcomputers through downloading capabilities.

Exhibit I-2A illustrates the major data flows in this alternative. Exhibit I-2B lists the categories of data from the Pretreatment Performance Summary suggested format that could be tracked by this system. A detailed list of all the data elements in the PPS suggested format that could be tracked by Alternative 2 is contained in Appendix A.



ALTERNATIVE 2: EPA OVERSIGHT SYSTEM (HEADQUARTERS AND REGIONS)

EXHIBIT I-2A

EXHIBIT I-2B:

Data to be Contained in Alternative 2

Source: PCI and Program Audit Data Currently In PCS

- Counts of PCIs and Program Audits

Source: POTW Pretreatment Performance Summary

Alternative 2 will contain all of the data in the EPA guidance suggested format for Pretreatment Performance Summaries, including:

- Geographic Information About POTWs and Counts of IUs
- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users)
- Compliance Monitoring Program Data (Summary level only)
- Enforcement Actions Data (Summary level only)

C. Alternative 3: System for Approval Authorities and Higher Levels

This proposed system addresses many of the pretreatment tracking needs identified in the Summary of Pretreatment Tracking Needs. It is more comprehensive than the EPA Oversight System previously discussed. It offers all the features of the previous system, and in addition, it helps relevant organizational levels:

- *Determine POTW Compliance with Pretreatment Program* Implementation Requirements
- Evaluate State Program Effectiveness
- Evaluate Local Program Effectiveness
- Determine Compliance Rate of Significant Industrial Users With Pretreatment Standards
- Allocate EPA Resources and Refine Existing Programs

In order to support these diverse needs, the system requires extensive data. PCIs, Program Audit results, and POTW Pretreatment Performance Summaries will all be necessary. Fortunately, all these types of data will be gathered at one organizational level -- the Approval Authority. For this reason, the Approval Authority is the most reasonable choice as the party responsible for data entry. No reports, other than those mentioned above, will be necessary for implementation of this system. However, the frequency and information contained in those reports will have to be standardized.

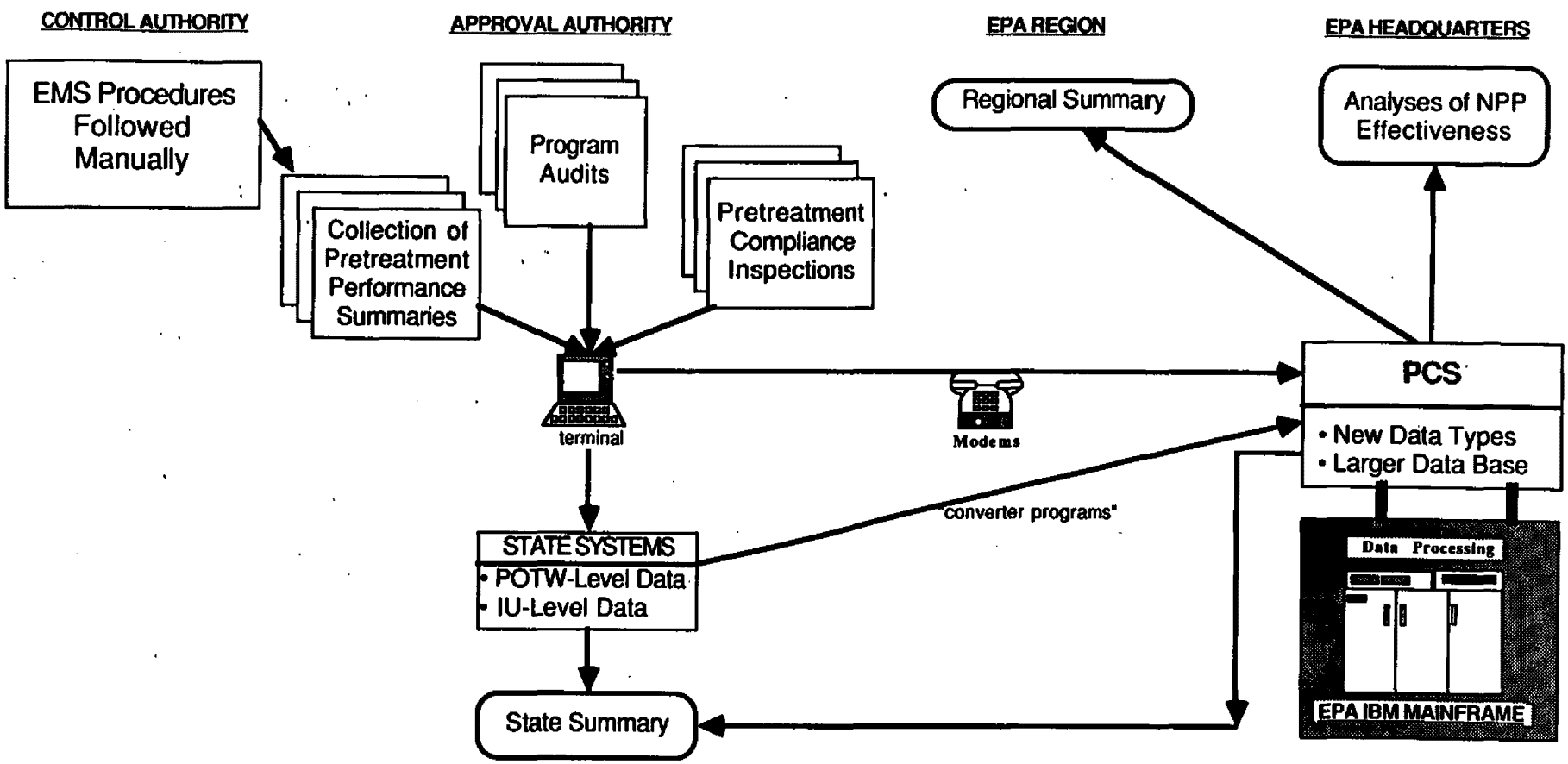
Much of the data to be tracked by Alternative 3 will have greater utility when combined with NPDES data already in PCS. Therefore, PCS would be a logical choice as a "home" for this automated pretreatment data. Also, EPA Regions and several Approval Authorities already enter summary PCI and POTW Program Audit data into PCS. Although the pretreatment tracking system will require more detailed PCI and Audit data, these offices already have staff familiar with PCS routines, which should facilitate future use of the PPETS system.

It is hoped that Alternative 3 will attract delegated State Approval Authorities to become users. The system will provide these states with an automated means of assessing pretreatment and permit enforcement in their jurisdictions. The system will provide EPA Headquarters, Regions, and participating Approval Authorities with periodic standard reports and user-designed reports. It will help to pinpoint problem POTWs and allow resources to be expended where they are needed most. If a State Approval Authority decides not to participate in PPETS, then the data required for that state will have to be entered by the EPA Regional Office.

For PPETS to be successful and encourage State Approval Authority participation, it will have to be user-friendly. The data should be accessible to all program staff at EPA Headquarters, Regions, and Approval Authorities -- even for those personnel who are untrained in computer programming. The additional software routines should also be compatible with PCS, so that personnel currently using PCS will have no trouble learning the new system.

This pretreatment tracking system concept will require some significant modifications to PCS. The alternative may require several new data files and an expansion or connection to some current PCS files. However, PCS data structures have proven themselves flexible in the past with the expansion of PCS subject matter to include evidentiary hearing and grant information. The exact nature and content of the new and expanded data files will have to be decided by EPA and State authorities.

Exhibit I-3A illustrates the major data flows in this alternative. Exhibit I-3B lists suggested categories of data items to be tracked by this system. A detailed set of suggested data items to be tracked by Alternative 3 is listed in Appendix A.



ALTERNATIVE 3: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS

EXHIBIT I-3A

EXHIBIT I-3B:

Data to be Contained in Alternative 3

Source: POTW Pretreatment Performance Summary

Alternative 3 will contain the same data from the Pretreatment Performance Summaries as Alternative 2, including:

- Geographic Information About POTWs and Counts of IUs
- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users)
- Compliance Monitoring Program Data (Summary level only)
- Enforcement Action Data (Summary level only)

Source: Pretreatment Compliance Inspections and Program Audits

Alternative 3 will contain data from the EPA guidance suggested formats for PCI and Program Audit checklists, including:

- PCI / Audit Identification Data
- Control Authority Pretreatment Program Overview Data (Summary level only)
- Control Authority Inspection and Monitoring of Industrial Users (Summary level only)
- Count of SIUs Covered by a Control Mechanism
- IU Compliance and Enforcement Actions (Summary level only)
- IU File Evaluation Data (Summary level only)
- Evaluation Comments of Inspector/Auditor (May include a possible code to rank areas of POTW activity)
- Background Control Authority Data

D. Alternative 4: System for Approval Authorities and Higher Levels (With Limited Industrial User Data)

This proposed system is very similar to the previous alternative, but with some additions to make it more useful to Approval Authorities. Like the previous systems, it will support the following functions:

- Determine Overall Effectiveness of the National Pretreatment Program
- Evaluate Regional and Approval Authority Oversight Effectiveness
- Determine POTW Enforcement of Pretreatment Program Requirements and the Overall Compliance of Industrial Users
- Allocate EPA Resources and Refine Existing Programs
- Develop National Policy and Enforcement Strategies

In addition, it will also allow Approval Authorities to store and manipulate limited amounts of Industrial User data. This system is intended to assist those Approval Authorities that also act as Control Authorities. Specific data about critical groups of Industrial Users could be tracked, including:

- Required Reports on IU Compliance
- Effluent and Concentration Levels
- Monitoring Samples Data
- Enforcement Actions

As with Alternative 3, it seems logical to incorporate this system into PCS. However, since the number of Industrial Users is very large, and to avoid impairing PCS operations, not all IUs could be tracked. Only those Categorical IUs where the State or Region acts as the Control Authority should be entered. It is estimated that approximately 1500 Categorical Industrial Users would be tracked in this system, and that this should not harm PCS operation or performance.

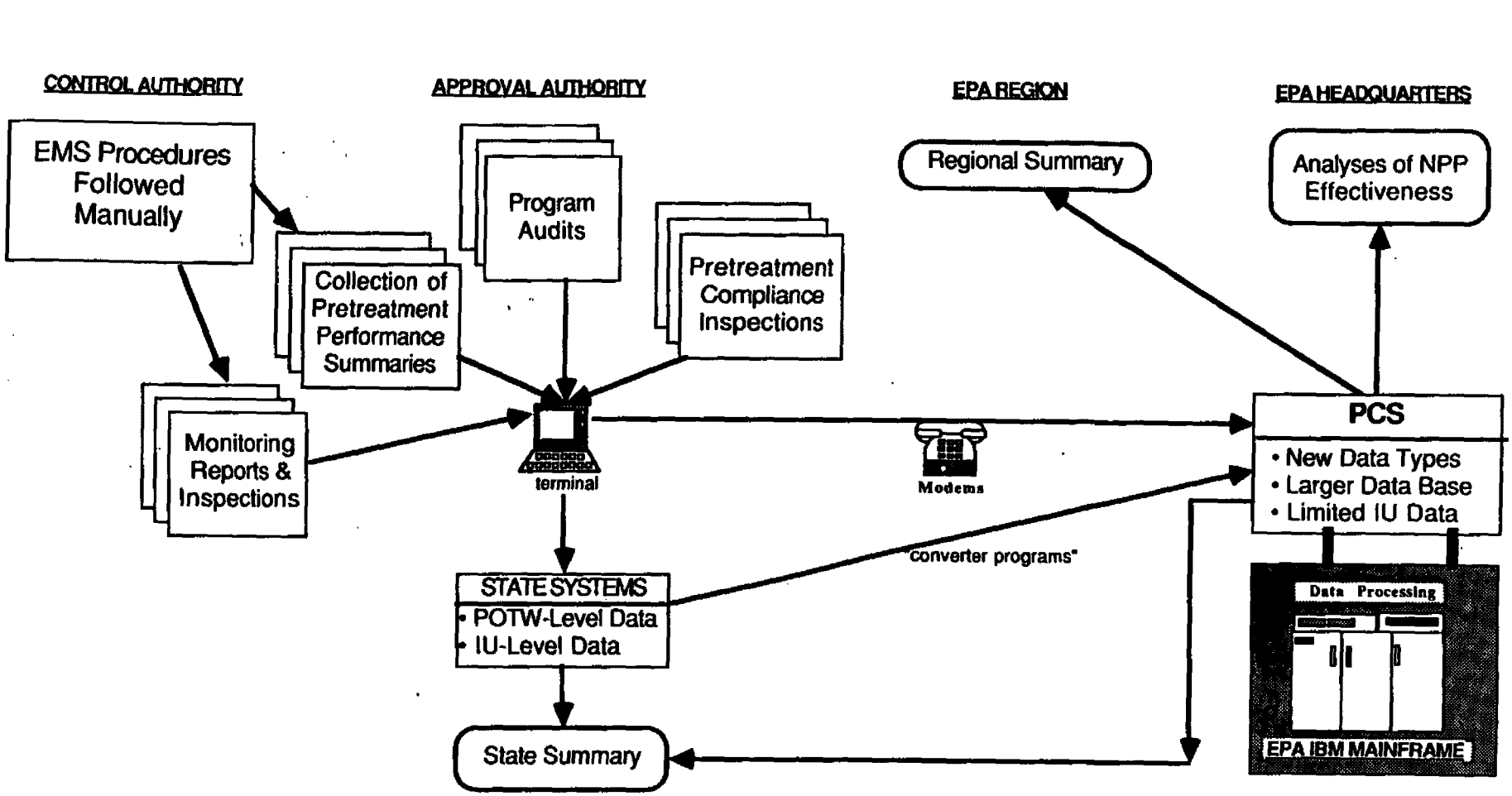
Alternative 4 will provide periodic standard and user-designed reports to help EPA Headquarters, Regions, and participating Approval Authorities

oversee the permits and enforcement actions of POTWs. It will also allow Approval Authorities to monitor the compliance of those Industrial Users for which it acts as Control Authority. EPA users could design reports with statistics on a National, Regional, State, POTW, and Industrial User level.

The Industrial User data in Alternative 4 will be implemented using existing PCS software. Programs already used by PCS will be modified to allow Industrial User tracking. This will be significantly less expensive than creating a new system just for IUs.

However, since the PCS software was designed for tracking POTWs and not IUs, there will be certain restrictions on the types of data stored. Only those data types which correspond to PCS data could be tracked. Fortunately, there are many similarities between tracking POTW effluent compliance and IU effluent compliance. Some data, such as production based limits, may be difficult to track.

Exhibit I-4A illustrates the major data flows in this alternative. Exhibit I-4B lists suggested categories of data to be tracked by this system. A detailed set of suggested data items to be tracked by Alternative 4 is listed in Appendix A.



ALTERNATIVE 4: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS (WITH LIMITED INDUSTRIAL USER DATA)

EXHIBIT I-4A

EXHIBIT I-4B:

Data to be Contained in Alternative 4

Source: POTW Pretreatment Performance Summary

Alternative 4 will contain the same data from the Pretreatment Performance Summaries as Alternative 2, including:

- Geographic Information About POTWs and Counts of IUs
- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users)
- Compliance Monitoring Program Data (Summary level only)
- Enforcement Action Data (Summary level only)

Source: Pretreatment Compliance Inspections and Program Audits

Alternative 4 will contain the same data from Pretreatment Compliance Inspections and Program Audits as Alternative 3, including:

- PCI / Audit Identification Data
- Control Authority Pretreatment Program Overview Data (Summary level only)
- Control Authority Inspection and Monitoring of Industrial Users (Summary level only)
- Count of SIUs Covered by a Control Mechanism
- IU Compliance and Enforcement Actions (Summary level only)
- IU File Evaluation Data (Summary level only)
- Evaluation Comments of Inspector/Auditor (May include a possible code to rank areas of POTW activity)
- Background Control Authority Data

Alternative 4, continued

Source: Various Industrial User Reports

In Alternative 4, Industrial User data will only be tracked for IUs where the State or Regional Approval Authority also acts as the Control Authority.

- General Industrial User Identification Data
- Sampling and Reporting Requirements (Detailed data)
- Pollutant Limits Data (Detailed data)
- Monitoring Data (Detailed data)
- Industrial User Technological Compliance Schedule
- Date and Type of IU Inspections by Control Authority
- Slug Load Data
- Enforcement Actions Taken (Detailed data)

E. Alternative 5: System for Approval Authorities and Higher Levels (With Extensive Industrial User Data)

This system is essentially an extension of Alternative 4. It will contain all the capabilities of the previous system, including determining the overall effectiveness of programs and oversight functions, determining overall IU compliance, assisting in resource allocation, and developing guidance. This system would also allow all Approval Authorities to track data for any number of Industrial Users.

The data tracked for Industrial Users would include: compliance records, effluent and concentration levels, monitoring samples data, IU inspection data, and enforcement actions.

Approval Authorities would have the system availability to track all Industrial Users. Since the data storage requirements for Industrial User data have the potential for being very large, this part of the system would not be implemented on PCS. To do so could very possibly overload PCS capabilities and impair existing PCS operations.

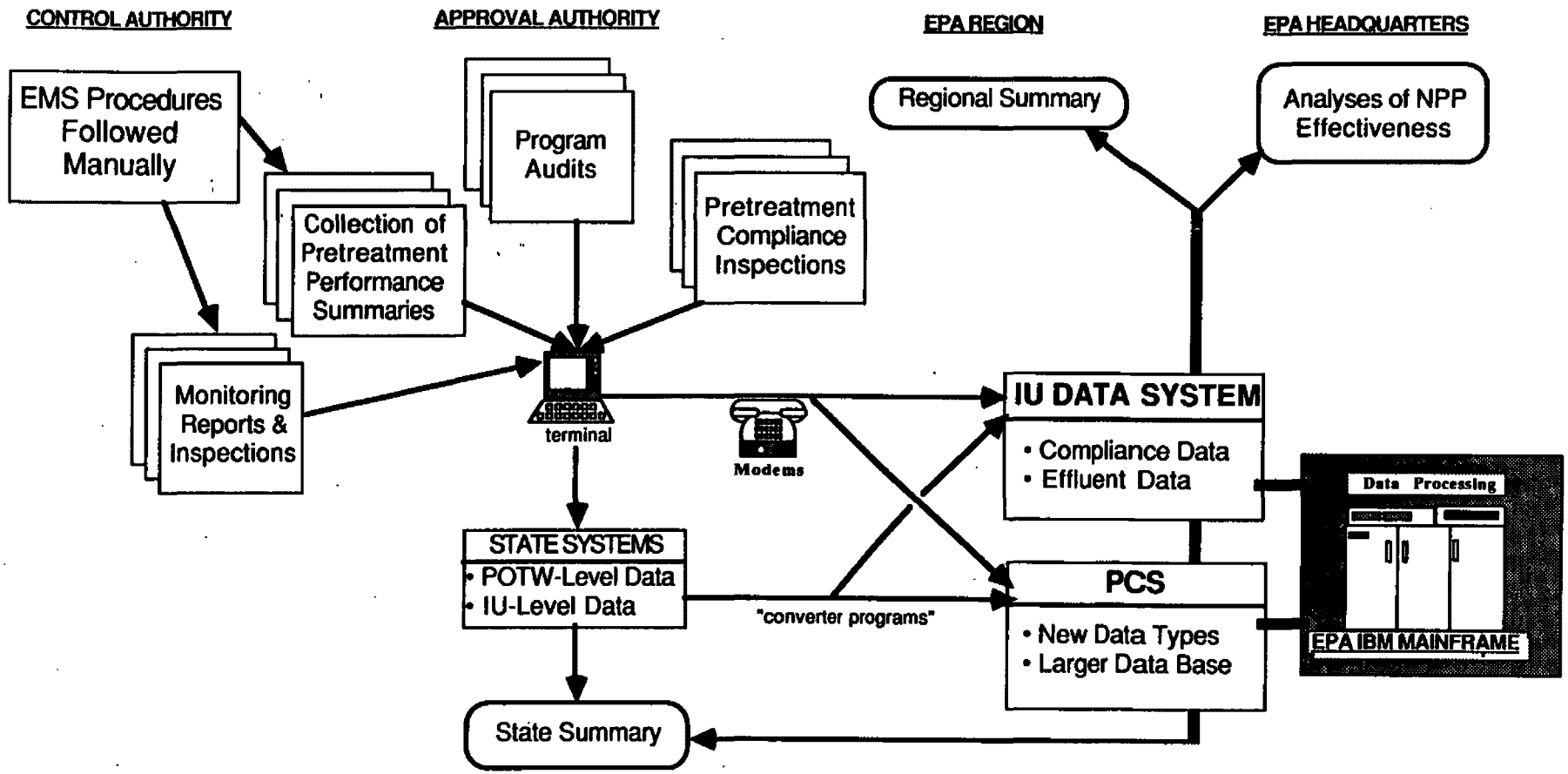
Under this alternative, PCS would be expanded to include all of the new pretreatment tracking data, except the Industrial User data. The Industrial User data would be stored on the EPA IBM mainframe, but in a separate system that could be linked to PCS.

Each participating Approval Authority would decide how much Industrial User data to enter. They would have the option to enter data for any number of IUs and as extensively detailed data as necessary. Approval Authorities could use the system to track only a specific subset of IUs or to provide comprehensive statistics about all IUs. EPA Headquarters and Regions would be able to produce national and regional pretreatment enforcement and permits statistics for POTWs and those IUs in the system.

Because of the additional IU data, Alternative 5 would be considerably larger than the other options. It would cost much more to implement and

maintain, but the amount of pretreatment compliance and permit data available would be greater than under the other alternatives.

Exhibit I-5A illustrates the major data flows in this alternative. Exhibit I-5B lists suggested categories of data to be tracked by this system. A detailed set of suggested data items to be tracked by Alternative 5 is listed in Appendix A.



ALTERNATIVE 5: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS (WITH EXTENSIVE INDUSTRIAL USER DATA)

EXHIBIT I-5A

EXHIBIT I-5B:

Data to be Contained in Alternative 5

Source: POTW Pretreatment Performance Summary

Alternative 5 will contain the same data from the Pretreatment Performance Summaries as Alternative 2, including:

- Geographic Information About POTWs and Counts of IUs
- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users)
- Compliance Monitoring Program Data (Summary level only)
- Enforcement Action Data (Summary level only)

Source: Pretreatment Compliance Inspections and Program Audits

Alternative 5 will contain the same data from Pretreatment Compliance Inspections and Program Audits as Alternative 3, including:

- PCI / Audit Identification Data
- Control Authority Pretreatment Program Overview Data (Summary level only)
- Control Authority Inspection and Monitoring of Industrial Users (Summary level only)
- Count of SIUs Covered by a Control Mechanism
- IU Compliance and Enforcement Actions (Summary level only)
- IU File Evaluation Data (Summary level only)
- Evaluation Comments of Inspector/Auditor (May include a possible code to rank areas of POTW activity)
- Background Control Authority Data

Alternative 5, continued

Source: Various Industrial User Reports

In Alternative 5, participating Approval Authorities will decide which Industrial Users and how much data they will track.

- General Industrial User Identification Data
- Sampling and Reporting Requirements (Detailed data)
- Pollutant Limits Data (Detailed data)
- Monitoring Data (Detailed data)
- Industrial User Technological Compliance Schedule
- Inspections of Industrial Users by Control Authority
- Slug Load Data
- Enforcement Actions Taken (Detailed data)

II. EVALUATION OF PPETS ALTERNATIVES

This section of the document evaluates all of the PPETS alternatives for a wide range of criteria. The section is composed of eight parts. Each part deals with a single class of evaluation criteria. They are:

- Tracking System Objectives: the data needs of EPA users that will be satisfied by each alternative
- Data Availability Criteria: the accessibility of the data required for each alternative
- System Capability Criteria: general system and reporting capabilities of each alternative
- Lifecycle Cost Criteria: the dollar and staff costs of development and five years of operations for the PPETS system
- Technical Criteria: the technical capabilities of the system to meet user needs
- Timeline Criteria: the time frame necessary for development of each alternative
- Change Potential Criteria: the flexibility of each alternative to meet changes in EPA's needs
- Organizational Impact Criteria: the major effects each alternative will have on EPA organizations

Each part fully evaluates all of the alternatives with regard to a class of criteria. In addition, each part contains a table summarizing the results of the analysis.

A. Tracking System Objectives

In the Summary of Pretreatment Tracking Needs, EPA Headquarters, Regional Offices, and Approval Authorities identified their priority objectives for the Pretreatment Permits and Enforcement Tracking System (PPETS). Exhibit II-1 lists all of these objectives and illustrates how well each of the proposed alternatives satisfies them.

The top part of the chart lists out each of the identified objectives along with their associated priority number (this priority number was calculated as part of the tracking needs document). The first two rows of the chart identify the organizations which will benefit from fulfilling these objectives.

Alternative 1, the current system, does not satisfy most of these objectives. It provides slight support for three of the objectives, but this support is minimal.

Alternative 2 fully supports two of the most important oversight objectives:

- Determine Overall Effectiveness of National Program
- Evaluate EPA Regional Oversight Effectiveness

In addition, Alternative 2 also provides partial support for many of the other objectives. These other objectives are only partially supported in Alternative 2 due to the lack of PCI and Program Audit data and because of the highly aggregate nature of the statistics on the PPS.

Alternative 3 provides much more comprehensive coverage of the objectives than Alternative 2. It fully supports the same objectives as Alternative 2 and also fully supports seven others, including:

- Evaluate Local Program Effectiveness
- Evaluate State Program Effectiveness

- Develop Enforcement Strategies
- Evaluate/Refine Existing Programs
- Allocate EPA Resources
- Make National Policy Decisions
- Determine POTW Compliance with Pretreatment Program Implementation Requirements

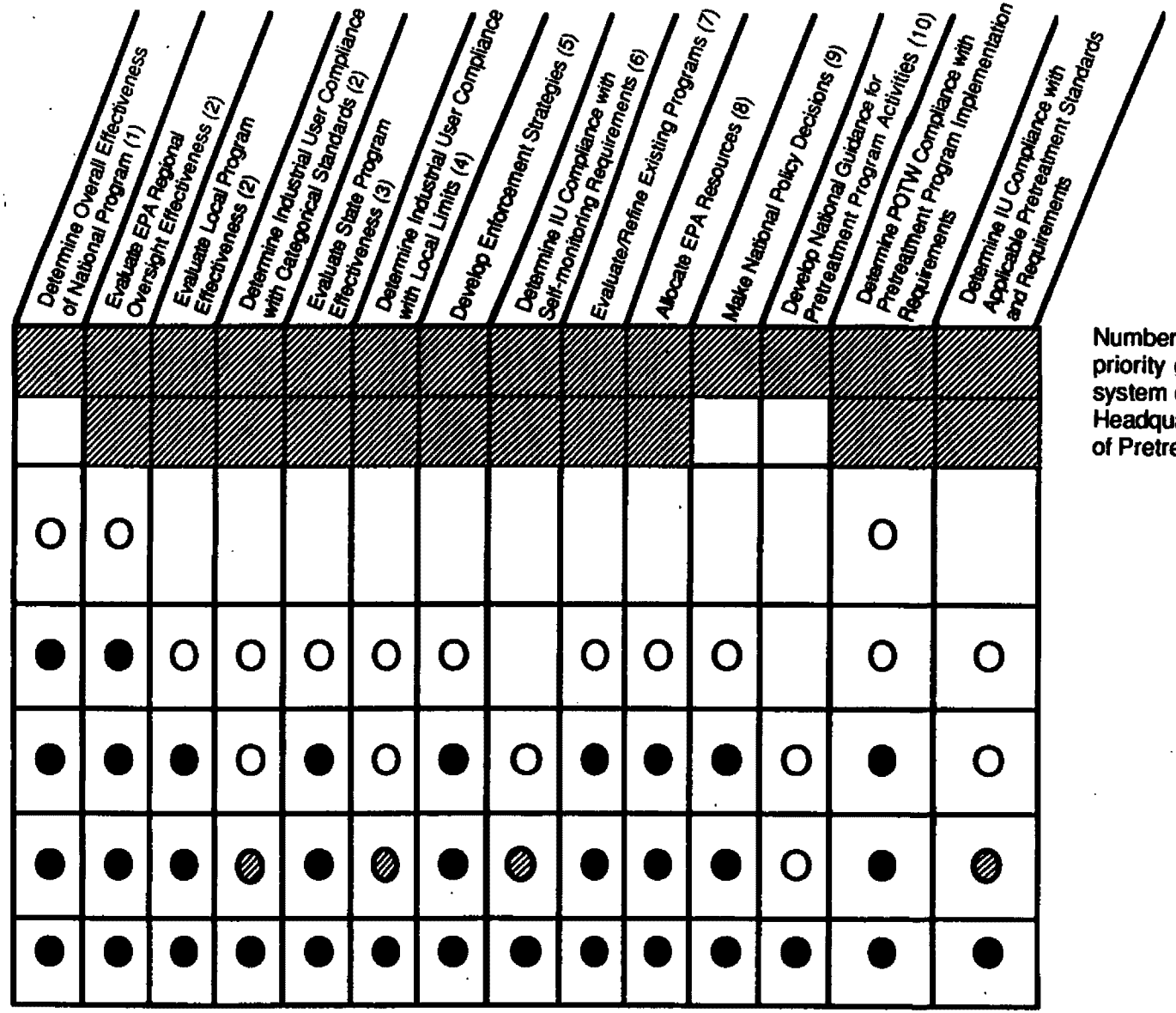
Alternative 3 also provides partial support for all the rest of the identified objectives.

In addition to the data in Alternative 3, Alternative 4 also tracks data for a limited number of Categorical Industrial Users. Alternative 4 fully supports the same objectives that Alternative 3 does. In addition, Alternative 4 fully supports 4 more objectives, but only for the subset of Industrial Users that it tracks:

- Determine Industrial User Compliance with Categorical Standards
- Determine Industrial User Compliance with Local Limits
- Determine IU Compliance with Self-monitoring Requirements
- Determine IU Compliance with Applicable Pretreatment Standards and Requirements

Alternative 5 is the most comprehensive of all the proposed systems. It will track PPS, PCI, and Program Audit data, and a complete range of Industrial User data. If provided with sufficient Industrial User data, Alternative 5 could fully support all of the objectives identified in the Summary of Pretreatment Tracking Needs document.

TRACKING SYSTEM OBJECTIVES



Number in parentheses refers to priority given to the tracking system objectives by EPA Headquarters in the Summary of Pretreatment Tracking Needs.

○ Means Proposed Alternative Partially Supports Tracking System Objective

◍ Means Proposed Alternative Fully Supports Tracking System Objective For a Subset of IUs

● Means Proposed Alternative Fully Supports Tracking System Objective

EXHIBIT II-1

B. Data Availability Criteria

Data availability refers to the accessibility of the required data for each of the alternatives. Criteria to be considered include:

- Type of required data, including the specific reports which will supply the data
- Source of required data, including the organizations that are responsible for compiling and supplying the reports
- Basis for current data collection, including the purpose for presently compiling the reports, whether due to EPA regulations, guidances, local needs, etc.
- Frequency of data generation, including how often the reports are currently compiled
- Data format, including how the data is currently arranged and reported
- Data accuracy and timeliness, including the reliability of the data to reflect current pretreatment conditions

These criteria are summarized for all five alternatives in Exhibit II-2. It should be remembered the alternatives build upon each other, and each successive alternative includes all the data contained in its predecessors.

Alternative 1 uses only very summary level data from PCIs and Program Audits. This data is entered into PCS by the Approval Authorities or the EPA Regions. In some cases, converter programs are used to transfer the data from state systems to PCS. Program Audits are conducted once every five years and PCIs are conducted during non-audit years. PCS is usually updated within one or two months to reflect the occurrence of PCIs and Audits.

Alternative 2 contains all the data in Alternative 1 plus Control Authority Pretreatment Performance Summaries (contained in Annual Reports). Annual Reports are produced by Control Authorities and submitted to Approval Authorities; sometimes, copies are also sent to the Regions, even

if they are not the Approval Authorities. EPA policy guidance suggests that Annual Reports be submitted at least once a year; some Approval Authorities require them more often (semi-annually or quarterly) and some do not require them at all. The Pretreatment Performance Summaries are statistical summaries to be included with the Annual Reports; EPA guidelines contain a suggested format for the PPS report. For Alternative 2 to be viable, the information in the Pretreatment Performance Summaries must have mandatory submission periods and formats. Since Pretreatment Performance Summaries are only one page long, the resources required to enter the information will not be very great. This data should be reported in a timely manner to reflect the condition of the Control Authority as accurately as possible.

Alternative 3 contains all the data mentioned above plus expanded PCI and Program Audit data. Approval Authorities are required to conduct PCIs and Program Audits of POTWs, and EPA has developed a suggested checklist format. For this alternative to succeed, EPA will have to make some information from its suggested checklists mandatory, in order to ensure consistent data and measurements. Since the data to be entered into Alternative 3 is much broader than for Alternative 2, the quality of the data may vary across different Approval Authorities. It is, however, hoped that the data will, in general, accurately describe Control Authority programs and be timely.

Alternatives 4 and 5 contain all the data mentioned above plus Industrial User data. The IU data required by the system is partially generated by the Control Authorities and partially by the Industrial Users themselves. The Control Authorities are responsible for conducting inspections once or twice a year, taking periodic sampling measurements, and performing an Industrial Waste Survey and periodic updates. The Industrial Users are responsible for producing periodic compliance reports (at least twice a year for Categorical IUs), self-monitoring sampling reports as required by the POTW, and slug loading notices as dictated by events. Although these reports are required for Categorical IUs under the National Pretreatment Program, standardized data and formats have not been established. If these alternatives are to be implemented, such

standardized formats would be necessary. Alternative 4 would only require standardized formats for Categorical Industrial Users where a State or Region is the Control Authority. Alternative 5, however, would require standardized formats for all Significant Industrial Users. Due to its size and complexity, the Industrial User data will probably be subject to greater uncertainty than other data in PPETS; its accuracy and timeliness may vary somewhat between different Control Authorities and Industrial Users.

DATA AVAILABILITY CRITERIA

	Type of Data	Source of Data	Basis for Data Collection	Frequency of Data	Data Format	Data Accuracy and Timeliness
Alternative 1: No National Automated System for Pre-treatment Enforcement Tracking	General data about PCI and Program Audit Occurrences and Dates	Approval Authority	EPA Regulations	Program Audits are conducted once every 5 years. PCIs are conducted in non-audit years.	Automated in PCS	Data is accurate and entered within 1 or 2 months.
Alternative 2: EPA Oversight System (Headquarters and Regions)	All the above data plus: POTW Pretreatment Performance Summaries	Control Authority	EPA Policy Guidance	Usually once a year. Some POTWs do not submit it. Some submit it semi-annually or even quarterly.	Hardcopy reports. Currently not standardized, but suggested format in EPA guidances. These would have to be made standardized and mandatory.	Data expected to be good. Timeliness may vary across regions.
Alternative 3: System for Approval Authorities and Higher Levels	All the above data plus: Expanded PCI data Expanded Program Audit data	Approval Authority	EPA Regulations and Policy Guidance	Program Audits are conducted once every 5 years. PCIs are conducted in non-audit years.	Hardcopy reports with non-standard formats. EPA has a suggested checklist formats for each. These checklists would have to be made mandatory.	Data expected to be good, although there may not be enough resources to conduct an Audit or PCI on every POTW each year.
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	All the above data plus: Inspections, Sampling Reports, Industrial Waste Survey (IWS)	Control Authority	EPA Regulations	Inspections (once or twice annually). Sampling reports have variable schedules. IWS once with updates as needed.	Hardcopy reports and local automated systems. General information is required, but format and specific measurements can vary across Control Authorities. These will have to be standardized.	Data Accuracy and timeliness will probably vary across different Control Authorities and Industrial Users.
	Self-monitoring Reports, Periodic Compliance Reports (flows, production levels), Notices of Slug Loading	Industrial Users	EPA Regulations and Control Authority Regulations	Periodic Compliance Reports twice a year for Categorical IUs. Others vary according to POTW regulation.		
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	The same data as in Alternative 4, but for a greater number of IUs.	Same as in Alternative 4	Same as in Alternative 4	Same as in Alternative 4	Same as in Alternative 4	Same as in Alternative 4

EXHIBIT II-2

C. System Capability Criteria

System capability criteria refers to the PPETS system's capacity to organize pretreatment data and to produce reports to satisfy EPA user needs. A summary of the system capability criteria for all five alternatives is contained in Exhibit II-3. The criteria considered include:

- Analytic flexibility, including the different ways to organize the pretreatment enforcement and permits data in the system
- Output Format, including the various types of reports that can be produced by PPETS
- Interactive Characteristics, including the on-line reporting and data entry capabilities of PPETS which permit direct user access and response

Analytic flexibility refers to the capabilities of PPETS to allow users to logically organize data in different ways. This is especially important for reporting functions; ADABAS, the underlying implementation environment of PCS, has a reputation for great flexibility in this area. Currently, since there is very little pretreatment data in PCS, there is very little flexibility on how to organize that data. Only general data about the occurrence and dates of PCIs and Program Audits are presently available at the POTW level in PCS. Alternative 2 allows for greater analytic flexibility. Data can be organized, or "cut", by State, POTW, type of compliance (i.e., reporting compliance, schedule compliance), monitoring activities, enforcement activities, etc. Alternative 3 will have the same major data cuts as Alternative 2, but in addition, the user would be able to organize the data according to any of the PCI or Program Audit parameters that will be tracked. Alternatives 4 and 5 will be able to be cut by all the parameters previously mentioned, plus they will have Industrial User data that could be cut by IU, categorical industry, amount and type of effluents, required reporting schedules, etc.

The previously mentioned data cuts are only the major logical

organizations of the data. PCS has very flexible capabilities, and would be able to organize the data in reports in almost any way the user requires.

PCS has three major formats for output reports: standard batch reports, user-designed or "quick-look" reports, and interactive user inquiries. These three classes of reports will be the same for all the alternatives. The exact format for many of the reports and reporting capabilities will be determined as the PPETS system is designed. The Industrial User data in Alternative 5, being stored in a system separate from PCS, may have a greater variety of reporting capabilities; however, due to the large amount of IU data, some of the interactive user inquiries may be difficult to achieve.

Interactive characteristics may be of great importance to PPETS users. Currently, PCS has the capability to run batch jobs and interactive inquiry and data entry routines. Alternative 2 will probably have mostly batch reports with quick turnaround times (less than one day). Interactive capabilities may be expanded, although this may not be necessary. Alternative 2 is a small system, so the number of inquiries may be limited and the turnaround for batch reports may be sufficient. Alternative 3 is a somewhat larger system and the demand for retrievals and interactive processing may increase. For the larger systems, Alternatives 4 and 5, the need for quick data retrievals and interactive processing may increase significantly. This would be especially true for some of the IU data, like compliance and reporting schedule data.

SYSTEM CAPABILITY CRITERIA

	Analytic Flexibility	Output Format	Interactive Characteristics
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	Very little flexibility for pretreatment compliance tracking -- data is available only at the POTW level.	Standard format batch reports, user-designed "quick-look" batch reports, and interactive inquiries.	Mostly batch jobs, but with some interactive data entry and reporting capabilities.
Alternative 2: EPA Oversight System (Headquarters and Regions)	Major data cuts would be by State, POTW, type of compliance (i.e., reporting compliance, effluent compliance), enforcement activities, etc.	Standard format batch reports, user-designed "quick-look" batch reports, and interactive inquiries.	Probably will have mostly batch reports with quick turnarounds (less than 1 day). Depending upon PCS capabilities, interactive functions can be expanded, although this may not be necessary. The system is small; inquiries will be limited and the batch turnaround may be sufficient.
Alternative 3: System for Approval Authorities and Higher Levels	Same major data cuts as above. However, PCS would have the capacity to cut the data by any PCI or Program Audit data through user-specified batch reports and inquiries.	Standard format batch reports, user-designed "quick-look" batch reports, and interactive inquiries.	As the system gets larger, there will be a greater demand for retrievals and the need for interactive processing may increase.
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	Major data cuts would include all the above cuts; plus for those IUs being tracked, data could be cut by IU, categorical industry, SIC, amount and type of effluents, required reporting schedule, etc.	Standard format batch reports, user-designed "quick-look" batch reports, and interactive inquiries.	A larger system will be more useful, and there will probably be more retrievals and a greater demand for interactive reports. This would especially be true for IU data where compliance and schedule statistics may require quick turnarounds.
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	Major data cuts will be the same as for Alternative 4.	Standard format batch reports, user-designed "quick-look" batch reports, and interactive inquiries. The IU data, being tracked by a separate system, may have a greater variety of output formats.	A larger system will be more useful, and there will probably be more retrievals and a greater demand for interactive reports. This would especially be true for IU data where compliance and schedule statistics may require quick turnarounds.

EXHIBIT II-3

D. Lifecycle Cost Criteria

Lifecycle costs are the total expenditures EPA can expect to make for staff costs, computer time, and equipment purchases during development and five years of operations for the PPETS system. Lifecycle costs fall into two major categories:

- Development costs, including all the one-time expenditures directly associated with studying, designing, implementing, and training users for the PPETS system
- Operating costs, including all of the recurring annual expenses directly associated with entering data, maintaining, supporting, and using the PPETS system.

Both of these categories are examined in great detail in the next two sections.

Exhibit II-4 contains an overview of the total PPETS lifecycle costs. There are estimates for development costs, first year operating costs, and future year operating costs (years 2 through 5) for all of the proposed new systems. There is a totals column listing the estimated costs that EPA can expect to spend for development and five years of operation of each alternative. All of the cost estimates have been listed out for time-sharing expenditures and dollar expenditures for non-timesharing resources. The estimates also assume that the initial year operating expenditures will generallly be 30% higher than future years, due to system shake-down and familiarizing new users with PPETS. The only exceptions to this are for equipment maintenance costs, which are expected to be constant for each of the first five years of operation. More information about the specific cost estimates and their underlying assumptions is contained in the next two sections on development and operating costs.

ESTIMATED LIFECYCLE COSTS

(Dollar Estimates in Thousands)

	Overall Development Costs	Annual Operating Costs (First Year)	Annual Operating Costs (Years 2 - 5)	Total Cost for Development and Five Year Operation
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	System currently in existence	System currently in existence	Resource Cost: $ 7.4 Timesharing: $ 6.0 Total $13.4	System currently in existence
Alternative 2: EPA Oversight System (Headquarters and Regions)	Resource Cost: $41 - 59 Timesharing: $14 - 19 Total $55 - 78	Resource Cost: $59 - 72 Timesharing: $31 - 78 Total $90 - 150	Resource Cost: $45 - 55 Timesharing: $24 - 60 Total $69 - 115	Resource Cost: $280 - 351 Timesharing: $141 - 337 Total $421 - 688
Alternative 3: System for Approval Authorities and Higher Levels	Resource Cost: $111 - 159 Timesharing: $ 40 - 70 Total $151 - 229	Resource Cost: $102 - 154 Timesharing: $125 - 156 Total $227 - 310	Resource Cost: $ 78 - 118 Timesharing: $ 96 - 120 Total $174 - 238	Resource Cost: $ 525 - 785 Timesharing: $ 549 - 706 Total $1,074 - 1,491
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	Resource Cost: $215 - 326 Timesharing: $107 - 133 Total $322 - 459	Resource Cost: $202 - 254 Timesharing: $234 - 312 Total $436 - 566	Resource Cost: $156 - 196 Timesharing: $180 - 240 Total $336 - 436	Resource Cost: $1,041 - 1,364 Timesharing: $1,061 - 1,405 Total $2,102 - 2,769
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	Resource Cost: $622 - 917 Timesharing: $450 - 540 Total $1,072 - 1,457	Resource Cost: $ 634 - 787 Timesharing: $1,295 - 1,560 Total $1,929 - 2,347	Resource Cost: $ 488 - 605 Timesharing: $ 996 - 1,200 Total $1,484 - 1,805	Resource Cost: $3,208 - 4,124 Timesharing: $5,729 - 6,900 Total $8,937 - 11,024

EXHIBIT II-4

1. Development Cost Criteria

Development costs include all those one-time costs that would be directly associated with the development of the PPETS system. These costs would include:

- Personnel costs, including contractor and EPA staff costs required for development, installation, and training
- Timesharing costs, including the costs for connect time, processing, and telecommunications
- Travel costs, including per diem and transportation costs
- Required hardware costs, including the costs for new computer equipment and peripherals

Dollar figures have been estimated for all of these cost criteria. In general, the costs will vary depending upon the complexity of the system being developed. Alternative 1, the current system, will obviously have no development costs in any of the categories. Alternative 5, the most complex of the proposed systems, will probably have the highest cost in each category. These cost criteria are summarized for all the alternatives in Exhibit II-5.

The cost estimates only include the direct system development expenses. They do not include related programmatic costs such as the cost of altering current pretreatment programs and permits to standardize reporting practices, the cost to Control Authorities of compiling the required pretreatment reports, or the cost of verifying the accuracy of PPS and other pretreatment data.

Personnel costs include the staff costs for preliminary studies, design, implementation, installation, and training for the new system. Personnel costs will be the most significant development costs and will vary substantially with each alternative. The estimates for personnel costs are in man-months and dollars for both contractor and EPA staff resources. Contractor costs are assumed to be $7500 per man-month, which

includes salary, overhead costs, general and administrative costs, fee, and miscellaneous other direct costs. EPA staff personnel are assumed to be GS 13, step 1, at a salary of $37,000 per year.

Alternative 2 will have the smallest development cost of the proposed new systems. It is a small tracking system that will be implemented as a separate data file in PCS. The current PCS data files will probably require little or no modifications in this alternative. The data elements are relatively few and are well defined by the Control Authority Pretreatment Performance Summary sample contained in the EPA Pretreatment Compliance Monitoring and Enforcement Guidance. This system will require very little preliminary work before actual programming could begin. Estimates for contractor resources are from 4 to 6 man-months or $30,000 to $45,000, and estimates for EPA personnel resources are from 1 to 2 man-months or $3100 to $6200.

Alternative 3 will have significantly higher personnel development costs. Adding PCI and Program Audit data and extending the system to the states will make this option more complex than the previous alternative. EPA has issued a guidance for PCIs and Program Audits that contain extensive checklists and suggested procedures. Not all the data contained on the checklists should be tracked in PPETS. For example, some questions refer to the establishment of POTW legal authority and written enforcement procedures. This information is important for EPA at the present time, but may not be important to track five years from now. A decision will have to be made as to what data should be tracked, and what data should not be tracked. Also, this alternative may require several new data files and a more complex linkage to current PCS files. Estimates for the necessary contractor resources are from 12 to 18 man-months or $90,000 to $135,000, and for EPA personnel resources, from 3 to 4 man-months or $9200 to $12,300.

Alternative 4 will have even higher personnel costs. In addition to the PCI and Program Audit data, this alternative will track a limited amount of Industrial User data. The IU data will be tracked using modified PCS software. Current PCS programs will be adapted to track Industrial

User data, at a substantially lower cost than creating a whole new system. Alternative 4 will track those Industrial User data elements that are analogous to elements currently in PCS. However, some changes to current data element definitions may be necessary to adapt the system for IUs. Estimated contractor resources for Alternative 4 are from 23 to 37 man-months or $172,500 to $277,500. Estimated EPA personnel resources are 8 to 10 man-months or $24,700 to $30,800.

Alternative 5 will most probably have the highest personnel costs. It would be a large, complex system designed to track a full range of Control Authority and Industrial User data. The Industrial User capabilities will require a substantial amount of preliminary study before they could be implemented. Estimated contractor resources for Alternative 5 are from 72 to 108 man-months or $540,000 to $810,000. Estimated EPA personnel resources are 20 to 28 man-months or $61,700 to $86,300.

Timesharing costs will be the on-line and batch processing computer costs associated with the design and implementation of the system. These costs also include any telecommunications costs associated with connecting to the NCC computers. These costs were estimated by comparing the PPETS alternatives with the average computer time expended during PCS development. Monthly timesharing costs were estimated taking into account the number of people working on development and the complexity of the new system compared to PCS. This number was then multiplied by the estimated implementation time (calculated as 2/3 of the total design and implementation time estimated under 'Timeline Criteria') for each alternative.

It is assumed that Alternative 2, being a small system, will have relatively small timesharing development costs. Average monthly computer time cost is estimated at $7200, for a total timesharing development cost between $14,000 and $19,000. Alternative 3, being a larger system is estimated to have an average monthly computer time cost of $15,000, for a total timesharing development cost of $40,000 to $70,000. Alternative 4 is significantly more complex than Alternative 3 and is estimated to have a monthly average computer cost of $20,000, or a total timesharing

development cost of $107,000 to $133,000. Alternative 5 is comparable in size and complexity to PCS, and is estimated to have a monthly average computer time cost of $45,000, for a total timesharing cost of $450,000 to $540,000.

Travel costs are mostly for training purposes after the system has been installed. Per diem costs are estimated at $75; long distance transportation is estimated at $400 per trip; shorter distance transportation is estimated at $200 per trip.

Since Alternative 2 will be used only by National and Regional Office personnel, there would only be a need for one centralized training session. Total per diem expense: $1500; transportation expense: $4000. Total travel expense: $5500.

Alternative 3 is designed for use by National Office, Regional Office, and Approval Authority personnel. Therefore, it is estimated that 3 training sessions may be required. Estimated project team per diem expense: $450; transportation expense: $2400. Estimated Regional trainee per diem expense: $1050; transportation expense: $1400. Total travel expense: $5300. No estimate was made for state travel expenses.

Alternatives 4 and 5 are designed to encourage the delegated State Approval Authorities to participate in the system. Assuming that this would be successful, these alternatives may require training sessions to be held in each region. Estimated project team per diem expenses are: $3000; transportation expense (assuming shorter distance travel): $4000. Total project team travel expense: $7000. These alternatives would not require regional travel, as the regions would be host sites. No estimate was made for state travel expenses.

All the alternatives are expected to have only modest hardware requirements. All of them will be implemented on the EPA IBM Mainframe, so there should be no new purchases of computers. The only equipment purchases that may be necessary would be additional terminals (and modems for some states) for Regional Offices and Approval Authorities, depending

upon load requirements. It is assumed that any terminals purchased would be IBM 3270's at a cost of $1200 each, and that no single office will have to purchase more than 1 new terminal. The number of offices that will have to purchase terminals will probably be related to the complexity of the system and to the number of POTWs in each jurisdiction.

Alternative 2 is a fairly small, simple system, so only those regions with more than 200 POTWs will probably have to purchase terminals: 2 new terminals will cost $2400. The estimates for Alternatives 3, 4, and 5 assume that the EPA Regions will have to enter all of the data; if State Approval Authorities decide to participate, this will reduce the need for new terminals at EPA. Alternative 3, being more complex than Alternative 2, may require purchases of terminals in regions with more than 100 POTWs: 5 new terminals will cost $6000. Alternative 4 is a moderately large system and may require purchases in regions with more than 50 POTWs and in EPA Headquarters: 9 new terminals will cost $10,800. Alternative 5 is a very large and complex system and will probably require an additional terminal in each region and at EPA Headquarters: 11 new terminals will cost $13,200.

DEVELOPMENT COST CRITERIA

	Personnel	Timesharing	Travel	Required Hardware
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	System currently in existence.	System currently in existence.	System currently in existence.	System currently in existence.
Alternative 2: EPA Oversight System (Headquarters and Regions)	Relatively small cost for development; as Pretreatment Performance Summary data is clearly defined by an EPA draft guidance. Training costs are also small, since the system will only be used by the 10 EPA Regions. Contractor resources: 4-6 man-months ($7,500/man-month) $30,000 - $45,000 EPA personnel: 1-2 man-months (GS 13, Step 1) $3,100 - $6,200	Relatively small cost as the proposed system is small and well defined. Estimated timesharing cost: $14,000 - $19,000	Since only regional staff will need to be trained, it is probably best to have one centralized training session. Estimated Travel Cost: Per Diem Cost: $1,500 Transportation Cost: $4,000 Total: $5,500	System would be implemented on EPA's IBM mainframe. Some of the regions may need an additional terminal, depending upon load factors. For this alternative, it is assumed that only regions with more than 200 POTWs will purchase terminals. 2 terminals @ $1,200 = $2,400
Alternative 3: System for Approval Authorities and Higher Levels	Higher development costs due to greater number of inputs. PCI and Audit checklists will have to be reviewed to determine data elements, and this process may be somewhat costly. Training will have to be provided for participating states. Contractor resources: 12-18 man-months ($7,500/man-month) $90,000 - $135,000 EPA personnel: 3-4 man-months (GS 13, Step 1) $9,200 - $12,300	Somewhat higher costs as system is larger and will require more complex programs and modifications to PCS software. Estimated timesharing cost: $40,000 - $70,000	Travel to three different training sites will be required to introduce the system to regional and state personnel (estimates include project team and regional trainee travel, but do not include State travel). Estimated Travel Cost: Per Diem Cost: $1,500 Transportation Cost: $3,800 Total: $5,300	System would be implemented on EPA's IBM mainframe. Some of the regions and states may need an additional terminal depending upon load factors. For this alternative, it is assumed that only regions with more than 100 POTWs will purchase terminals. 5 terminals @ $1,200 = $6,000
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	Much higher development costs as the number of required inputs is much greater. Necessary IU data is not very well defined at this time and will have to be studied. Training costs will be higher due to more complex systems. Contractor resources: 23-37 man-months ($7,500/man-month) $172,500 - $277,500 EPA personnel: 8-10 man-months (GS 13, Step 1) $24,700 - $30,800	Large system would be expected to have significant computer time costs. Estimated timesharing cost: $107,000 - $133,000	If the system is successful and attracts many state users, then 10 training sessions may have to be held, one for each region (estimates do not include state travel expenses). Estimated Travel Cost: Per Diem Cost: $3,000 Transportation Cost: $4,000 Total: $7,000	System would be implemented on EPA's IBM mainframe. Some of the regions and states may need an additional terminal depending upon load factors. For this alternative, it is assumed that regions with over 50 POTWs and EPA Headquarters will purchase terminals. 9 terminals @ $1,200 = $10,800 No estimate is given for State purchases, but these should not be more than 1 per State.
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	Higher cost than Alternative 4 because a new system will need to be established as opposed to expanding PCS. An extensive study may need to be conducted to determine IU data needs. Contractor resources: 72-108 man-months ($7,500/man-month) $540,000 - $810,000 EPA personnel: 20-28 man-months (GS 13, Step 1) $61,700 - $86,300	More computer time will probably be required to program and thoroughly test a new system as opposed to modifying PCS. Estimated timesharing cost: $450,000 - $540,000	Since this is a system designed for state use, it is assumed that many states will want to participate, and that 10 training sessions will be required, one in each region (estimates do not include state travel expenses). Estimated Travel Cost: Per Diem Cost: $3,000 Transportation Cost: $4,000 Total: $7,000	System would be implemented on EPA's IBM mainframe. Some of the regions and states may need an additional terminal depending upon load factors. For this alternative, it is assumed that all regions and EPA Headquarters will have to purchase one new terminal each. 11 terminals @ $1,200 = $13,200 No estimate is given for State purchases, but these should not be more than 1 per State.

EXHIBIT II-5

2. Operating Cost Criteria

Operating cost criteria consist of those costs EPA can expect each year in order to operate, maintain, and support the PPETS system. These costs include:

- Data entry costs, including the EPA staff or contractor costs to load new data into PPETS each year
- Equipment reliability and expected maintenance costs for equipment not operated by NCC
- Operations and software maintenance costs, including the contractor costs required to monitor updates to the system and make programming adjustments and small enhancements
- Timesharing costs, including the connect time, processing time, and telecommunications costs for PPETS data entry, operations, retrievals, and maintenance
- User support costs, including the EPA staff costs required to answer user questions and resolve problems

Dollar figures have been estimated for the annual operating cost criteria expected to be incurred after the initial year of system operations. Due to additional learning and shake-down costs, the first year's operating expenses are estimated to be 30% greater than for subsequent years. The only exceptions to this are equipment maintenance costs, which are expected to be constant during the initial and subsequent years of operation. These criteria and estimates are summarized for each alternative in Exhibit II-6.

Data entry costs refer to those costs associated with loading new pretreatment data into PPETS each year. This data can be entered either by manually typing on a terminal or by running a converter program which will enter data into PPETS directly from a regional or state system. The following estimates are calculated in contractor man-months and dollars. Contractor costs for data entry are assumed to be $4000 per man-month, which includes salary, overhead costs, general and administrative costs, fee, and miscellaneous other direct costs. These estimates assume that the

EPA Regions will have to manually enter all of the required data; if State Approval Authorities decide to participate in Alternatives 3, 4, or 5, then the data entry costs for EPA will be lower.

Alternative 1 has the smallest data entry costs as only a very limited amount of pretreatment data is currently tracked. It is estimated that the pretreatment data currently entered into PCS costs 0.1 man-month per Region per year, or a total for all Regions of $4000 per year.

Alternative 2 will have a relatively small data entry cost. Only 1 record (about 45 data elements) will have to be entered for each POTW every year. No Regional Office is responsible for more than 406 POTWs, so the associated personnel cost should be small: from 0.75 to 1 man-month per Region per year, or a total for all Regions of $30,000 to $40,000 per year.

Alternative 3 will have a greater data entry cost. In addition to the Pretreatment Performance Summary data, data from about 292 Program Audits and 1169 PCIs will have to be entered annually. It is not known at this time just how much data from the PCI and Audit checklists will be entered, but personnel costs are not expected to be more than 1 or 2 man-months per Region per year, or a total for all Regions of $40,000 to $80,000 per year.

For Alternative 4, data could be entered from Pretreatment Performance Summaries, PCIs, Program Audits, and data from about 1500 Categorical Industrial Users. It is not known just how much data will be tracked for each IU, but a cost estimate would be from 2 to 3 man-months per year for each Region, or a total for all Regions of $80,000 to $120,000 per year.

Alternative 5 will be the most expensive and could have potentially very large data entry costs. It is not known at this time, how many Industrial Users nor how much data States will want to track, but a cost estimate would be from 9 to 11 man-months per year for each Region, or a total for all Regions of $360,000 to $440,000 per year.

Equipment reliability and maintenance costs are not expected to be very important for any of the alternatives. The most important equipment, the

IBM mainframe, is maintained by NCC. The EPA Headquarters, Regional Offices, and Approval Authorities will only have to maintain terminals, modems, and printers. These are for the most part reliable and will probably not require very much maintenance in the first five years of use. It is estimated that the annual maintenance costs will be 10% of the price of all equipment purchased for PPETS. It is assumed that this cost will be constant for the initial and subsequent operating years. For Alternative 1, the equipment maintenance cost for the pretreatment data entered into PCS is so small that it is negligible. The equipment maintenance cost for Alternative 2 will probably only be $200 annually; for Alternative 3, $600; for Alternative 4, $1100; and for Alternative 5, $1300.

Operations and software maintenance includes monitoring system updates and making adjustments and small modifications to PPETS software. The following estimates are in contractor man-months and dollars. It is assumed that contractor costs are $7500 per man-month, which includes salary, overhead costs, general and administrative costs, fee, and miscellaneous other direct costs. The following estimates include only minor modifications to PPETS. Major enhancements will probably cost more.

Alternative 1 tracks very little pretreatment data and requires very little maintenance. It is estimated that the pretreatment data in PCS currently requires only 0.25 man-month of software maintenance per year or $1900 per year.

Alternative 2, being a small, straightforward system will probably require little maintenance. Also, since Alternative 2 is a very modular system, any enhancements that are required will probably be relatively inexpensive to make. Estimated annual cost for software maintenance: 1 man-month or $7500. Alternative 3, being larger than Alternative 2, will probably require more software maintenance. Estimated software maintenance cost for Alternative 3: 3 man-months or $23,000.

Alternatives 4 and 5 will probably require significant software maintenance. In Alternative 4, Industrial User data will be tracked on modified PCS software. As the system is used, new ideas will probably

develop about how to adapt even more IU data to PCS software. Estimated software maintenance cost for Alternative 4: 6 man-months or $45,000. Alternative 5 will be a large, complex system and will probably require software maintenance, at least during its first few years as the system becomes more streamlined. Estimated software maintenance cost for Alternative 5: 12 man-months or $90,000.

Timesharing costs are all the computer time costs associated with data entry, retrieval, operation, and maintenance of the PPETS system. These costs include connect time, processing time, data storage, and telecommunications. The following figures are based on current PCS timesharing costs, and were estimated by comparing the size and complexity of PCS to the different alternatives. Alternative 1 contains very little pretreatment data, and its portion of PCS timesharing costs is only about $6000 per year. Alternative 2 is estimated to have a timesharing cost of $24,000 to $60,000 per year. Alternative 3 is estimated to have a timesharing cost of $96,000 to $120,000 per year. Alternative 4 is estimated to have a timesharing cost of $180,000 to $240,000 per year. Alternative 5 is estimated to have a timesharing cost of $996,000 to $1,200,000 per year.

User support costs will vary significantly between alternatives. Currently, EPA devotes 10 man-days each week for user support and handles about 100 calls per week. The following estimates assume that user support staff are EPA personnel at GS 13, step 1, with a salary of $37,000 per year. Alternative 1 requires very little user support, and its share of current PCS user support resources is probably only 0.2 man-day per week, or $1500 per year. Each of the other proposed systems will probably increase the present demand and cost for user support. Alternative 2, being a small system, will probably require only modest user support, perhaps only 1 additional man-day per week or $7400 per year. Alternative 3, being a somewhat larger system, will probably require more user support, perhaps 2 additional man-days per week or $14,800 per year. Alternative 4 is a moderately large and complex system and may require 4 additional man-days per week for user support or $29,600 per year. Alternative 5, being a very large system, will require a significant increase in user support, perhaps from 5 to 10 additional man-days per week, or from $37,000 to $74,000 per year.

OPERATING COST CRITERIA

(Estimates are annual costs after initial year of operation)

	Data Entry Costs	Equipment Reliability and Expected Maintenance Costs	Operations and Software Maintenance Costs	Timesharing Costs	User Support Costs
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	Very small data entry costs as only very limited PCI and Program Audit data is entered. Contractor resources: 0.1 man-month per region $400 per region	Very small equipment maintenance as terminals (and modems where necessary) are fairly reliable. The EPA IBM maintrame is maintained by NCC. The share of PCS terminals devoted to pretreatment tracking data is negligible.	Software maintenance is currently performed for EPA by private contractor. Software modifications are made depending upon their cost and priority. Estimated operations and software maintenance for pretreatment data only: Contractor resources: 0.25 man-month ($7,500/man-month) $1,900	Very small timesharing costs as only small amounts of pretreatment data is tracked by PCS. Estimated timesharing cost (for pretreatment data only): $6,000 per year	EPA currently has a support staff of 10 man-days/week for PCS that handles about 100 inquiries each week. Estimate (for current user support of pretreatment data only): 0.2 man-day per week, or $1,500 per year
Alternative 2: EPA Oversight System (Headquarters and Regions)	Relatively small data entry costs as system is small. No region will have to enter more than 406 POTW records per year. Contractor resources: .75 - 1 man-month per region $3,000 - $4,000 per region	Small equipment maintenance costs for terminals in EPA Regions. Estimated annual equipment maintenance: $200	This is a small, straight-forward system and will probably require little maintenance. Since it will be implemented as a separate PCS file, minor software modifications should be inexpensive to make. Contractor resources: 1 man-month ($7,500/man-month) $7,500	Relatively small timesharing costs as only 1 record is stored for 1,510 POTWs each year. Estimated timesharing cost: $24,000 to $60,000 per year	This is a small system, so it will probably not demand very many additional support resources. Estimate: 1 additional man-day per week, or $7,400 per year
Alternative 3: System for Approval Authorities and Higher Levels	More resources will be required to enter PCI and Program Audit data, but again these should be relatively moderate. The estimates below assume that EPA Regions will have to enter the data. State participation will reduce the amount of EPA resources required. Contractor resources: 1 - 2 man-months per region $4,000 - $8,000 per region	Since this alternative will require more terminals, there will probably be somewhat higher maintenance costs. These are still expected to be minor expenses. Estimated annual equipment maintenance: $600	This is a somewhat larger system with a more complex linkage with current PCS files. Software maintenance would be expected to be somewhat more expensive than Alternative 2. Contractor resources: 3 man-months ($7,500/man-month) $23,000	In addition to the above data, approximately 292 new Program Audits and 1,169 PCI records will be added each year. This system will probably have greater usage. Estimated timesharing cost: $96,000 to $120,000 per year	This is a moderately sized system and will require some user support. Estimate: 2 additional man-days per week, or $14,800 per year
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	Depending upon how much IU data is to be tracked, data entry costs could vary significantly. The estimates below assume that EPA Regions will have to enter the data. State participation will reduce the amount of EPA resources required. Contractor resources: 2 - 3 man-months per region $8,000 - $12,000 per region	This alternative may require more terminals than Alternative 3, depending upon the number of states that participate and the amount of IU data entered. Maintenance costs will probably be somewhat higher but still be minor. Estimated annual equipment maintenance: $1,100	The IU data being tracked on modified PCS software will probably require some software maintenance. As the system is used, new ideas will develop about how to use PCS software to track new IU data. Contractor resources: 6 man-months ($7,500/man-month) $45,000	In addition to the above data, the system will track approximately 1,500 Categorical IUs. Estimated timesharing cost: $160,000 to $240,000 per year	This is a moderately large and complex system and will require user support. Estimate: 4 additional man-days per week, or $29,600 per year
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	This may be a very large system. The estimates below assume that EPA Regions will have to enter the data. State participation will reduce the amount of EPA resources required. Contractor resources: 9 - 11 man-months per region $36,000 - $44,000 per region	This is a large complex system. Its maintenance costs will probably be higher than the other alternatives, but still not very significant. Estimated annual equipment maintenance: $1,300	This is a large, complex system and will probably require significant software maintenance at least during its first several years as the system gets more streamlined. Operational resources will also be greater than in other alternatives. Contractor resources: 12 man-months ($7,500/man-month) $90,000	This will be a very large, complex system. It will track all the data in Alternative 3 and up to 15,000 Categorical IUs and 25,000 - 50,000 Non-categorical IUs. The actual numbers, however, will likely be smaller. Estimated timesharing cost: $996,000 to $1,200,000 per year	This has the potential to be a very large and complex system and will require significant user support. Estimate: 5 to10 additional man-days per week, or $37,000 to $74,000 per year

EXHIBIT II-6

E. Technical Criteria

Technical Criteria address data processing technical issues such as:

- System/data security and integrity
- System availability and reliability
- Capability to interface with high level languages
- Simplicity of operation
- Ability to recover from system failures
- Amenability to quick and accurate resolution of problems
- Transaction auditability

A summary of these criteria for all alternatives is contained in Exhibit II-7. Because all the proposed alternatives would be programmed on the EPA IBM Mainframe and implemented as an expansion of PCS, most of these criteria will be similar for all alternatives.

The security and integrity of the PCS system and data is currently very good. There are security measures built into the PCS software to prevent unauthorized access. Data being entered into PCS goes through edit checks to ensure its integrity. Although security was not a priority for PPETS, all the alternatives, being expansions of PCS, will be subject to the same security protections. The only exception may be the Industrial User data in Alternative 5, which as a separate system, could be designed with any desired level of security.

The availability and reliability of the PCS system and IBM mainframe is good at the present time. The mainframe is usually available, although response time sometimes slows in the early afternoon. The IBM mainframe is down only one hour per month for routine maintenance. Overall the system is up 95% of the time. None of the alternatives is expected to adversely affect this record.

Because of security constraints, high level languages can only be run indirectly on PCS. Users must first run a special utility function that

creates a separate data file and obeys the security constraints for data access. Users can then run high level languages, like SAS and FOCUS, on this separate data file. To maintain the security of the PCS data, all of the alternatives should follow the same pattern for access.

The new PPETS system is expected to be designed for simplicity of operation and user-friendliness. It is hoped that those already using PCS will need little training to use PPETS, and that new users will have no difficulties learning and using the system.

System failures for the IBM mainframe and PCS are infrequent. Recovery is usually very quick and sometimes almost immediate. The recovery rate is considered very good and none of the alternatives should have adverse effects in this area.

EPA currently provides user support for PCS to answer questions and resolve problems. At present, they receive an average of about 100 calls per week. Most of these are for questions and minor difficulties; however, a few calls each week are for major problems. Some of these problems can take from one to two weeks to fully investigate and correct, or from two days to a week if the problem is urgent. Alternatives 2 and 3 are much smaller and simpler than the full PCS system, so problems should take no longer than a few days to resolve. Alternative 4 is somewhat more complex and extensive than 2 or 3, so large problems may take about a week to resolve. Alternative 5 may be similar in complexity to PCS, so problems with that system will probably take one to two weeks to resolve.

Transaction auditability refers to tracing system usage. It records who entered, changed, and deleted various data and when. This information is useful when determining the frequency of system updates and when investigating system problems. Under the current system, one has to request this historical data from the PCS user support staff. All of the PPETS alternatives will probably have similar procedures for transaction auditability--the data will be there if necessary, but it will be somewhat difficult to access.

TECHNICAL CRITERIA

	System/Data Security and Integrity	System Availability and Reliability	Capability to Interface with High Level Languages	Simplicity of Operations	Ability to Recover from System Failure	Amenability to Quick and Accurate Resolution of Problems	Transaction Auditability
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	System currently has security measures built into the software. Edit checks are performed on new data, and there is security to prevent unauthorized access.	Availability and reliability of PCS and the mainframe is good at most times. The mainframe is up 95% of the time and scheduled maintenance down time is only about 1 hour per month.	Because of security constraints, high level languages can only be run on separate files. There is a utility that allows users to create separate files from the data available to them.	Although PCS is user-friendly, one needs to understand complex NPDES processes to take full advantage of the system.	System failures for PCS and the mainframe are infrequent and for very short durations. Recovery rate is considered good.	Large problems in PCS are usually investigated and resolved within 1 to 2 weeks, or from 2 days to 1 week when urgent.	Historical computer transaction data is available, but must be requested through the PCS support staff.
Alternative 2: EPA Oversight System (Headquarters and Regions)	Although security was not a priority for PPETS, the system will have the same security protections as PCS.	This alternative should have the same record of availability and reliability as the current system.	Because of security constraints, high level languages can only be run on separate files. There is a utility that allows users to create separate files from the data available to them.	The data in this system will be fairly straightforward, so its operations may be designed for greater simplicity and user-friendliness.	This alternative should not have any adverse impacts on the current system's recovery record.	This is a fairly simple system, so large problems would probably be investigated and resolved within a few days.	This alternative will probably have similar transaction audit procedures to the current system.
Alternative 3: System for Approval Authorities and Higher Levels	Although security was not a priority for PPETS, the system will have the same security protections as PCS.	This alternative should have the same record of availability and reliability as the current system.	Because of security constraints, high level languages can only be run on separate files. There is a utility that allows users to create separate files from the data available to them.	The data in this system will be fairly straightforward, so its operations may be designed for greater simplicity and user-friendliness.	This alternative should not have any adverse impacts on the current system's recovery record.	This is a fairly simple system, so large problems would probably be investigated and resolved within a few days.	This alternative will probably have similar transaction audit procedures to the current system.
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	Although security was not a priority for PPETS, the system will have the same security protections as PCS.	This alternative should have the same record of availability and reliability as the current system.	Because of security constraints, high level languages can only be run on separate files. There is a utility that allows users to create separate files from the data available to them.	The PPS, PCI, and Program Audit data may be straightforward and simple to use; however, the IU data may be slightly complex.	This alternative should not have any adverse impacts on the current system's recovery record.	This is a moderately complex system, so investigating and resolving large problems may take about a week.	This alternative will probably have similar transaction audit procedures to the current system.
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	The PCS part of Alternative 5 would have security protections. The IU data system could be made with any desired level of security.	This alternative should have the same record of availability and reliability as the current system.	The PCS data and the IU data will both probably follow the same procedures as above.	The PPS, PCI, and Program Audit data may be straightforward and simple to use; however, the IU data may be slightly complex.	This alternative should not have any adverse impacts on the current system's recovery record.	This is a complex system and resolving large problems may take 1 to 2 weeks, as it does in the current PCS system.	This alternative will probably have similar transaction audit procedures to the current system.

EXHIBIT II-7

F. Timeline Criteria

Timeline criteria deals with issues related to the time it will take to complete basic tasks for developing the system. Four major timeline criteria have been defined:

- Preliminary studies timeline, including the time required to determine the precise information and access requirements and the specific data elements to be tracked
- Design and implementation timeline, including the time required to plan, develop, test, and document all the new PPETS software and modifications to PCS
- NCC approval timeline, including the time it will take the NCC to review, comment, and approve the new PPETS system and/or modifications to PCS
- Training and installation timeline, including the time required to set up, introduce, and teach PPETS to all of its expected users

The time periods for these tasks will vary greatly between each alternative. Exhibit II-8 contains a summary of the timeline estimates for each of the options. Alternative 1, being the current system, will naturally have no timeline considerations in any of the categories. Time frames have been estimated for each of the other alternatives. These estimates are intended to serve as a comparison for the different options. In general, the more complex a system is, the longer its development time will be.

Preliminary Studies are one of the most important tasks to be conducted. They ensure that the system being developed will actually fill the needs of the intended users. Alternative 2 will require a relatively small amount of preliminary study. It is a small, straightforward system. Its data elements have already been defined by EPA in the suggested format for Control Authority Pretreatment Performance Summaries in the Pretreatment Compliance Monitoring and Enforcement Guidance. Actual design and implementation could start soon after completion of the feasibility study. Estimated time for preliminary studies for Alternative 2: 1 to 2

months.

Alternative 3 is more complex than Alternative 2 and will require more preliminary work. In addition to the Pretreatment Performance Summaries, Alternative 3 also contains data on PCIs and Program Audits. Although EPA has published suggested formats for PCI and Program Audit checklists, these are too extensive to be entirely entered into PPETS. EPA will have to determine what checklist data should be tracked by PPETS and what should not be tracked. Estimated time for preliminary studies for Alternative 3: 2 to 4 months.

In addition to all the data in Alternative 3, Alternative 4 also tracks limited amounts of Industrial User data. There are currently some IU reports for which EPA has not issued suggested formats. Although the Industrial User data will be tracked using modified PCS software, some study will be needed to determine precisely what IU data can be tracked and to standardize the necessary reports. Estimated time for preliminary studies for Alternative 4: 3 to 5 months.

Alternative 5 will contain PPS, PCI, and Program Audit data and will also track a full range of Industrial User data. A substantial preliminary study would have to be conducted to determine what data should be tracked for both categorical and noncategorical IUs. The study would have to include the EPA Headquarters, Regional Offices, Approval Authorities, and perhaps even some Control Authorities. This could be a long and perhaps costly process. Estimated time for preliminary studies for Alternative 5: 6 to 8 months.

Actual design and implementation of the system will be the other major time cost. Alternative 2 is a small system. It will be implemented as a separate data file to PCS and will probably be fairly modular and easy to design. Estimated time for design and implementation of Alternative 2: 3 to 4 months.

Alternative 3 is a moderately sized system. It will involve adding several new data files and may include some potentially complex linkages

and expansions of current PCS files. Estimated time for design and implementation of Alternative 3: 4 to 7 months.

Alternative 4 will incorporate all the design and implementation work of Alternative 3. It will also involve the modification of current PCS software to permit the tracking of IU data. This will probably take considerably less time than creating a whole new system for Industrial User data. Estimated time for design and implementation of Alternative 4: 8 to 10 months.

Alternative 5 is a large, complex system. There is a very large range of Industrial User data for the system to track. It will probably take considerable time to design, implement, and test. Estimated time for design and implementation of Alternative 5: 15 to 18 months.

NCC procedures and required approval will also add some time delay to each of the proposed systems. Alternative 2, being a fairly straightforward enhancement to PCS, should be approved by NCC quickly, probably within 1 week. Alternative 3 is a substantially larger enhancement to PCS, and NCC will probably require more time to examine the system; approval may take 1 month. If Alternative 4 is considered an enhancement, instead of a new system, then NCC approval should again take about 1 month. Since Alternative 5 is a large new system, it will require NCC approval at several design steps. These NCC approvals could take about 3 months all together; however, some development work could probably be performed concurrently with the approval process, so the overall delay should only be about 2 months.

Proper training and installation is necessary for the success of the system. Alternatives 2 and 3 are both relatively small systems. They can both probably be installed quickly and training for all users can occur at the same time. Estimated time for training and installation of Alternatives 2 and 3: 1 month.

Alternative 4 is a more complex system than 2 or 3. It may be better, in this case, to phase in the installation and training over a period of

time in order to correct any problems or make suggested improvements to the system. Estimated time for training and installation of Alternative 4: 2 to 4 months.

Alternative 5 is a large and complex system. Some modifications and adjustments will most probably need to be made initially. The system may have significant impacts on Approval Authority operations. Installation and training should be phased in over time. Estimated time for training and installation of Alternative 5: 4 to 8 months.

The overall time frames for Alternatives 2, 3, 4, and 5 vary significantly. Total timeline estimates are: Alternative 2, from 5 to 7 months; Alternative 3, from 8 to 13 months; Alternative 4, from 14 to 20 months; and Alternative 5, from 27 to 36 months.

TIMELINE CRITERIA

	Preliminary Studies	Design and Implementation	NCC Approval	Training and Installation	Total Timeline Estimates
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	Currently in existence.	Currently in existence.	Currently in existence.	Currently in existence.	Currently in existence.
Alternative 2: EPA Oversight System (Headquarters and Regions)	Very little preliminary work is required as the necessary data elements are already defined by the Pretreatment Performance Summary in the EPA Pretreatment Compliance Monitoring and Enforcement Guidance. Estimated Time: 1-2 months	The system is small and modular, so design and implementation should be fairly quick. Estimated Time: 3-4 months	NCC Approval can take from a week to a month. Since this is a small system, it should only take a short time. Estimated Time: 1 week	A small system like this should be easy to install and train users for. Estimated Time: 1 month	Total Estimate: 5 to 7 months
Alternative 3: System for Approval Authorities and Higher Levels	Preliminary work will have to be done to determine what data in the PCI and Program Audit check-lists should be tracked in PPETS. This can be potentially time and resource consuming. Estimated Time: 2-4 months	This is a moderately sized system. It may involve some complex linkages and expansions to current PCS data files. It will take longer to design and implement than Alternative 2. Estimated Time: 4-7 months	NCC Approval can take from a week to a month. Estimated Time: 1 month	This system is still simple enough that installation and training should present no problems. Estimated Time: 1 month	Total Estimate: 8 to 13 months
Alternative 4: System for Approval Auth. and Higher Levels (with Limited IU Data)	In addition to the work required for Alternative 3, there will be preliminary work to determine what data would be required to track categorical IUs. Since there is no suggested format for some reports, it may take awhile for a consensus to develop. Estimated Time: 3-5 months	This system will incorporate all the design and implementation for Alternative 3 plus it will involve significant modifications to permit PCS to track limited numbers of IUs. Estimated Time: 8-10 months	If this can be considered an enhancement of PCS, then NCC Approval should only take from a week to a month. Estimated Time: 1 month	This system is more complex. Installation and training may be better being phased in over a period of time across different areas. Estimated Time: 2-4 months	Total Estimate: 14 to 20 months
Alternative 5: System for Approval Auth. and Higher Levels (with Extensive IU Data)	In addition to the work required for Alternative 3, there will be preliminary work to determine what data would be required to track both categorical and non-categorical IUs. Since there is no suggested format for some reports, it may take awhile for a consensus to develop. Estimated Time: 6-8 months	This is a large system and will take considerable time to design and implement. Estimated Time: 15-18 months	Since this may be a very large, new system, NCC approval may be required at several design steps. Some of the approval steps may be able to occur concurrently with development efforts. Estimated Time: 2 months	This is a large, complex system. Some modifications and adjustments may need to be done initially, so it is better to phase the system into different areas over time. Estimated Time: 4-8 months	Total Estimate: 27 to 36 months

EXHIBIT II-8

G. Change Potential Criteria

Change potential includes how modifiable the PPETS system will be to new technologies and new data and applications requirements. Basic criteria are:

- Ability to handle varying transactions loads
- Ability to adapt to new technologies
- Ability to increase or reduce the number of data elements tracked
- Ability to integrate new applications and programs
- Ability to store substantially greater volumes of data

A summary of these criteria for all alternatives can be found in Exhibit II-9. Because all of the alternatives would be implemented in PCS, they will all have fairly similar change potentials.

The ability to handle varying transaction loads does not appear to be a significant problem at this time. PCS and the IBM mainframe seem to have enough capacity to handle most transaction loads. However, according to EPA sources, the system does sometimes get a little slow during prime computing time (between 12:00 and 2:00 pm), but is fine during the rest of the day. Some large-scale PCS data retrievals tend to be somewhat slow, but this is due more to the large volumes of data in PCS than to transaction loads. The more complex options, Alternatives 4 and 5, will probably have the highest transaction loads and could conceivably have an adverse impact on mainframe systems, although this is not considered to be likely.

The ability to adapt to new technologies will depend a great deal upon NCC and the enhancements that they make on their computers. New data base environments; high level user languages, processing capability improvements, hardware, telecommunication lines, etc. depend upon NCC decisions. Of course, the EPA Headquarters, Regional Offices, and Approval Authorities can always connect new peripherals (terminals and printers) to the system.

The ability to increase or reduce the number of required data elements will be a significant factor in different alternatives. In general, it is not very difficult to make small increases (i.e. only a few data elements) to the PCS data base. Alternative 2, which can be implemented as a small separate PCS data file, will probably be especially modular and very easy to modify. However, Alternatives 3, 4, and 5 may be a little more difficult to change. They are more elaborate systems and further enhancements may involve changes to several PCS files.

Alternative 2 will also probably not require many modifications. The data contained in the Pretreatment Performance Summaries is very basic and limited, and may not have to be changed very often. Alternatives 3, 4, and 5, on the other hand, will contain PCI and Program Audit data. It appears likely that as the National Pretreatment Program develops, PCI and Program Audit procedures and checklists will probably change significantly over time. Although PCS is flexible, it may not be flexible enough to keep up with PCI and Program Audit evolution.

PCS and its ADABAS implementation appear to be very flexible when it comes to new applications. The ability to integrate new applications and programs is not expected to be a problem with any of the alternatives.

The ability to store substantially greater volumes of data, however, may present a problem for PCS. Modifying any of the alternatives to accept substantially more data will probably require a significant expenditure of resources. PCS is flexible as was proved by the addition of evidentiary hearing and grant information data, and as PPETS will again prove. Nevertheless, a substantial increase to the PCS data base, requires substantial effort.

CHANGE POTENTIAL CRITERIA

	Ability to Handle Varying Transaction Loads	Ability to Adapt to New Technologies	Ability to Increase or Reduce Number of Data Elements	Ability to Integrate New Applications and Programs	Ability to Store Substantially Greater Volumes of Data
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	PCS transaction load is not usually a problem. However, the mainframe does sometimes get a little slow between 12:00 and 2:00 PM. Large scale data retrievals do take awhile, but this is due to the amount of data, not transaction load.	The technology of PCS and the mainframe systems depend to a large extent upon NCC decisions. New peripherals (printers, terminals), however, could be added at anytime.	Small increases and decreases to the data base (i.e., one or two new data elements) pose very little problem for PCS.	New applications and programs should pose no particularly large problem for PCS or its ADABAS implementation.	A substantially larger data base will involve major modifications to PCS and may require significant expenditures.
Alternative 2: EPA Oversight System (Headquarters and Regions)	Alternative 2 is a small system and will probably have a limited amount of data to be entered and retrieved at any given time. Therefore, transaction loads are expected to be moderate and steady and should pose no problems.	The technology of PCS and the mainframe systems depends to a large extent upon NCC decisions. New peripherals (printers, terminals), however, could be added at anytime.	Being a small system, with very basic data, Alternative 2 probably would not require very many changes. Since it is implemented in a separate PCS data file, data modifications would be fairly easy to make.	New applications and programs should pose no particularly large problem for PCS or its ADABAS implementation.	A substantially larger data base will involve major modifications to PCS and may require significant expenditures.
Alternative 3: [illegible]em for [illegible]val Authorities and Higher Levels	Alternative 3, being a larger system, will probably have a little more variation in data entry and retrieval loads. This probably won't cause any problems as long as the IBM mainframe is not overloaded.	The technology of PCS and the mainframe systems depends to a large extent upon NCC decisions. New peripherals (printers, terminals), however, could be added at anytime.	PCIs and Program Audits can have somewhat extensive data, and it seems probable that they will change and evolve over the next several years. Although PCS is flexible, it may not be able to keep up with format and data changes.	New applications and programs should pose no particularly large problem for PCS or its ADABAS implementation.	A substantially larger data base will involve major modifications to PCS and may require significant expenditures.
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	In addition to the data in Alternative 3, Alternative 4 will contain data on an estimated 1,500 IUs. This will cause a higher load variation which may cause some problems if the number of IUs tracked turns out to be actually much higher.	The technology of PCS and the mainframe systems depends to a large extent upon NCC decisions. New peripherals (printers, terminals), however, could be added at anytime.	PCIs and Program Audits can have somewhat extensive data, and it seems probable that they will change and evolve over the next several years. Although PCS is flexible, it may not be able to keep up with format and data changes.	New applications and programs should pose no particularly large problem for PCS or its ADABAS implementation.	A substantially larger data base will involve major modifications to PCS and may require significant expenditures.
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	Alternative 5, being a rather large system, will probably have a highly variable transaction load. Its size and any potential problems are difficult to estimate since it is not known how many Approval Authorities would participate and how much IU data would be tracked.	The technology of all mainframe systems depends to a large extent upon NCC decisions. New peripherals (printers, terminals), however, could be added at anytime.	PCIs and Program Audits can have somewhat extensive data, and it seems probable that they will change and evolve over the next several years. Although an ADABAS system is flexible, it may not be able to keep up with format and data changes.	New applications and programs should pose no particularly large problem for PCS or the proposed IU data system.	A substantially larger data base will involve major modifications to the tracking system software and may require significant expenditures.

EXHIBIT II-9

H. Organizational Impact Criteria

Organizational impact criteria refer to the effects that a new PPETS system will have on relevant EPA organizations. Exhibit II-10 summarizes the effects the different alternatives will have on the EPA Headquarters, Regional Offices, and Approval Authorities. The criteria considered include:

- Requirements to add staff or to obtain new skills
- Reorganization of day-to-day operations
- Changes in reporting relationships

Obviously, Alternative 1 requires almost no changes to EPA organizations. However, even under the status quo, a greater consistency of data measurements and formats is regarded as desirable, and changes in current reporting relationships have been proposed. Guidances have been issued with suggested formats for Pretreatment Compliance Inspections, Pretreatment Program Audits, and Control Authority Annual Reports and Pretreatment Performance Summaries.

Each of the other alternatives will require certain staff additions. These staff additions can either be contractor staff or EPA staff, depending upon budget conditions. Alternative 2 will probably require the least additional personnel resources, as it is a small system mainly serving the National and Regional Offices. Regions IV and V may find it necessary to increase their staffs as they are responsible for the most POTWs and will have to enter about 391 and 290 PPSs respectively each year. However, the staff additions should not be more than one part-time employee for those regions.

Alternatives 3, 4, and 5 will probably require some additional staff in the Approval Authorities. The amount of staff resources required will depend upon how many States decide to participate in PPETS. The Regional Offices will have to enter data for those States that decide not to participate. Also, Alternative 5 will probably require greater staff

resources than the others since it will have significantly more data to be entered and more data that will be retrieved and analyzed.

Training will be required for all the proposed systems. Alternative 2 will require training only in the National and Regional Offices, while Alternatives 3, 4, and 5 will require training in the National Office, Regional Offices, and Approval Authorities. Also, Alternatives 2, 3, 4, and 5 will require progressively more training respectively, as the systems are more complex.

The reorganization of day-to-day operations is difficult to assess. Alternative 2 will probably have a minimal impact on day-to-day operations. Alternatives 3 and 4 may have some effects on those Approval Authorities that decide to participate. Data from PCIs and Audits will have to be entered and will be easier to track and analyze. Alternative 4 will help Approval Authorities track those Industrial Users for which they also act as Control Authorities.

Alternative 5 may have a significant impact on the participating Approval Authorities. Depending upon the amount of Industrial User data the Approval Authority decides to enter, there may be sizable impact on data entry resources and a significant enhancement of the Authority's ability to supervise and regulate POTW operations and IU pretreatment compliance.

All of the alternatives will require changes in current reporting relationships. Recently, EPA has been issuing suggested formats for different reports. Under Alternative 2, the information contained in the Control Authority Pretreatment Performance Summaries (to be included with Annual Reports) will have to be made mandatory and their data fields standardized according to the EPA Pretreatment Compliance Monitoring and Enforcement Guidance. Alternatives 3, 4, and 5 will require not only Pretreatment Performance Summaries be standardized, but also certain data from PCI and Program Audit checklists be made mandatory. Alternatives 4 and 5 will also require that some format be established for Industrial User reporting data and inspections by POTWs.

However, no new reports will be required under any of the alternatives; only current and already proposed reports would have to be standardized. PPETS will not change any basic relationships between EPA organizational levels, but it will help EPA Headquarters, Regional, and Approval Authority offices with their oversight roles. PPETS may also facilitate the submission of reports to EPA Headquarters and Regional Offices, since this could now be done electronically.

ORGANIZATIONAL IMPACT CRITERIA

	Requirements to Add Staff or to Obtain New Skills	Reorganization of Day to Day Operations	Changes in Reporting Relationships
Alternative 1: No National Automated System for Pretreatment Enforcement Tracking	None	None	Some format standardizations have been proposed for POTW Pretreatment Performance Summaries, PCI checklists, and Program Audit checklists.
Alternative 2: EPA Oversight System (Headquarters and Regions)	Additional staff resources may be required in regions with large numbers of POTWs. Some training will be required in the EPA National and Regional Offices.	Minimum effect on day to day operations.	POTW Pretreatment Performance Summaries will have to be standardized and made mandatory.
Alternative 3: System for Approval Authorities and Higher Levels	Some additional staff may be required in those Approval Authorities that decide to participate in PPETS. Regional Approval Authorities will be required to participate; States will have an option. Training will also be required in these offices.	There will be some effects on Approval Authorities as PCIs, Program Audits and Pretreatment Performance Summaries will need to be entered. However, these effects are expected to be fairly minor.	POTW Pretreatment Performance Summaries, PCI checklists, and Program Audit checklists will have to be standardized and made mandatory.
Alternative 4: System for Approval Authorities and Higher Levels (with Limited IU Data)	The amount of additional staff required will depend upon the number of Approval Authorities that decide to participate and how much IU data will be entered. Extensive training will also be required.	Of the participating Approval Authorities, those that act as Control Authorities will feel the most effects. These states will now have an automated tracking system for the IUs they directly regulate.	POTW Pretreatment Performance Summaries, PCI checklists, and Program Audit checklists will have to be standardized as in Alternative 3. In addition, IU monitoring, limits, and compliance data will also need to be standardized.
Alternative 5: System for Approval Authorities and Higher Levels (with Extensive IU Data)	The amount of additional staff required will depend upon the number of Approval Authorities that decide to participate and how much IU data will be entered. Extensive training will also be required.	Tracking IU data may have a significant impact on participating Approval Authorities. The ability of these Approval Authorities to oversee and regulate POTW pretreatment operations and IU compliance will be greatly enhanced.	POTW Pretreatment Performance Summaries, PCI checklists, and Program Audit checklists will have to be standardized as in Alternative 3. In addition, IU monitoring, limits, and compliance data will also need to be standardized.

EXHIBIT II-10

III. CONCLUSIONS AND RECOMMENDATION

Under the National Pretreatment Program, EPA is required to implement nationwide regulations controlling the pollutants discharged to Publicly Owned Treatment Works (POTWs) by Industrial Users. To adequately fulfill this function, EPA has definite needs for pretreatment permits and enforcement data.

It is clear from the Tracking System Objectives Chart (Exhibit II-1) that the current system, or Alternative 1, does not meet most of EPA's data needs. For pretreatment tracking, the current PCS system only gives very general data about the occurrence and dates of PCIs and Program Audits. Although important, this information is not sufficient to help implement or assess the effectiveness of the NPP. More data is definitely needed.

Alternative 2 provides considerably more information than is currently available to the EPA Headquarters and Regional Offices. It fully supports two of the most important objectives listed in the Summary of Pretreatment Tracking Needs: (1) To determine the overall effectiveness of the national program; and (2) To evaluate EPA regional oversight effectiveness. In addition, Alternative 2 partially supports many of the other tracking system objectives. Although it doesn't provide complete information, Alternative 2 will provide enough data to point out problem areas in pretreatment enforcement. Further investigation, such as examining PCIs and Program Audits or conducting field visits, could then be undertaken. Alternative 2 would significantly improve EPA's ability to pinpoint troubled municipalities and allocate its efforts accordingly. In addition, Alternative 2 is a small, well-defined system. It could be implemented in a relatively short time frame of 5 to 7 months, and at a cost of $55,000 to $78,000, less than half of the cost of any of the other proposed new systems. Its five year operating costs would be from $366,000 to $610,000.

Alternative 3 provides considerably fuller coverage than Alternative 2. It fully supports many of the tracking system objectives that Alternative 2 can only partially support. However, its data is not as well defined. EPA

has recently issued extensive PCI and Program Audit checklists. These checklists contain a variety of data, only some of which should be entered into PPETS. EPA would have to come to a consensus about precisely which data should be included. Alternative 3 could be implemented within 8 to 13 months, at a cost of $151,000 to $229,000. Its five year operating costs would be from $923,000 to $1,262,000.

Alternative 4 fills most of EPAs tracking needs and provides significant help to Approval Authorities which have assumed Control Authority functions. Since its Industrial User data will be tracked using only modified PCS software, the additional programming costs should not be too great. However, preliminary study will be required to determine which Industrial User data elements can be tracked by PCS software. Some IU data will be analogous to current PCS elements, but some may be difficult to track, such as production based effluent limits. EPA has already issued guidances for Pretreatment Performance Summaries, PCI checklists, and Program Audit checklists, but has not issued similar suggested formats for many Industrial User reports, except monitoring reports. Format requirements may have to be developed for some Categorical IU reports in areas where the Approval Authority also acts as Control Authority. Estimates for the development of Alternative 4 are from 14 to 20 months, at a cost of $322,000 to $459,000. Its five year operating costs would be from $1,780,000 to $2,310,000.

Alternative 5 is a large and complete system. Given sufficient Industrial User data, it could satisfy all of the EPA tracking system objectives. However, it will cost significantly more than all the other alternatives. Estimates are for a 2 to 3 year project at a cost of 1.1 to 1.5 million dollars. Its five year operating costs would be from $7,865,000 to $9,567,000. Although a comprehensive system, like Alternative 5, may be desirable in the future, at this time of budget constraints, it is probably too expensive.

Regardless of which alternative is chosen, EPA will have to make some of its suggested reports mandatory. An automated system needs to have standardized data in standardized formats. If not, the data entry may become very expensive and the data itself may be inconsistent.

From the analyses conducted, there appears to be a clear need for a new Pretreatment Permits and Enforcement Tracking System. Alternative 4 seems to be the best choice to fully satisfy many of EPA's information needs, without going to the expense of a comprehensive system, like Alternative 5. Alternative 4 will provide substantial information about POTWs and their pretreatment permits and compliance efforts, and also provide specific data about a limited subset of Industrial Users.

Instead of being implemented all at one time, Alternative 4 should be implemented in a two step approach:

- Step 1: Implementation of the PPETS system to track PCI, Program Audit, and PPS data (Alternative 3).
- Step 2: Enhancement of the PPETS system to track the limited amounts of Industrial User data (Alternative 4).

This incremental approach will have a pretreatment system on-line within a shorter period of time and will not require any duplication of effort.

Although Step 1 is to be developed as a package, use and data entry to the system should be phased in over time. As the EPA Regions and Approved States implement and develop their pretreatment programs, usage of the PPETS system should be increased. It is suggested that PPETS be first utilized to track PCI and Program Audit data. Currently, much of EPA's pretreatment efforts are directed towards PCIs and Program Audits, which provide the most comprehensive and accurate data about POTW operations. Data from Pretreatment Performance Summaries would be incorporated into PPETS as the second phase of Step 1. After the Step 1 PPETS system is operational, the Step 2 system should be developed. This will give PPETS the full Alternative 4 capabilities.

APPENDIX A:

Data Contained in Alternative 1

Source: Pretreatment Compliance Inspections and Program Audits

- Counts of PCIs and Program Audits

  -- POTW Where PCI or Audit Took Place
  -- Type of Inspection (PCI or Program Audit)
  -- Date of Inspection
  -- Approved Pretreatment Program Indicator

Data to be Contained in Alternative 2

Source: PCI and Program Audit Data Currently in PCS

- Counts of PCIs and Program Audits
  - -- POTW Where PCI or Audit Took Place
  - -- Type of Inspection (PCI or Program Audit)
  - -- Date of Inspection
  - -- Approved Pretreatment Program Indicator

Source: POTW Pretreatment Performance Summary

Alternative 2 will contain all of the data in the EPA guidance suggested format for Pretreatment Performance Summaries, including:

- Geographic Information About POTWs and Counts of IUs
  - -- NPDES Number
  - -- Name, Address, Contact Person, Telephone Number, etc. (Some of this data may be referenced from other PCS files and not duplicated here.)
  - -- Total Number of Categorical IUs
  - -- Total Number of Noncategorical IUs
  - -- Reporting Period
- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users, except where noted)
  - -- No. of SIUs Submitting BMRs/No. Required (Categorical Only)
  - -- No. of SIUs Submitting 90-Day Compliance Reports/No. Required (Categorical Only)
  - -- No. of SIUs Submitting Semi-Annual Report/No. Required
  - -- No. of SIUs Meeting Compliance Schedule/No. Required to Meet Schedule
  - -- No. of SIUs in Significant Noncompliance/Total No. of SIUs
  - -- Rate of Significant Noncompliance for all SIUs (Categorical and Noncategorical Combined)
- Compliance Monitoring Program Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- No. of Non-Sampling Inspections Conducted
  - -- No. of Sampling Visits Conducted
  - -- No. of Facilities Inspected (Non-Sampling)
  - -- No. of Facilities Sampled

Alternative 2 Contents, Continued:

- Enforcement Actions Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- Compliance Schedules Issued/Schedules Required
  - -- Notices of Violations Issued to SIUs
  - -- Administrative Orders Issued to SIUs
  - -- Civil Suits Filed
  - -- Criminal Suits Filed
  - -- Significant Violators
  - -- Was Significant Violators List Published
  - -- Amount of Penalties Collected (Total Dollars/IU Assessed)
  - -- Other Actions (Sewer Bans, etc.)

Data to be Contained in Alternative 3

Source: POTW Pretreatment Performance Summary

Alternative 3 will contain the same data from the Pretreatment Performance Summaries as Alternative 2 including:

- Geographic Information About POTWs and Counts of IUs
  - -- NPDES Number
  - -- Name, Address, Contact Person, Telephone Number, etc. (Some of this data may be referenced from other PCS files and not duplicated here.)
  - -- Total Number of Categorical IUs
  - -- Total Number of Noncategorical IUs
  - -- Reporting Period

- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users, except where noted)
  - -- No. of SIUs Submitting BMRs/No. Required (Categorical Only)
  - -- No. of SIUs Submitting 90-Day Compliance Reports/No. Required (Categorical Only)
  - -- No. of SIUs Submitting Semi-Annual Report/No. Required
  - -- No. of SIUs Meeting Compliance Schedule/No. Required to Meet Schedule
  - -- No. of SIUs in Significant Noncompliance/Total No. of SIUs
  - -- Rate of Significant Noncompliance for all SIUs (Categorical and Noncategorical Combined)

- Compliance Monitoring Program Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- No. of Non-Sampling Inspections Conducted
  - -- No. of Sampling Visits Conducted
  - -- No. of Facilities Inspected (Non-Sampling)
  - -- No. of Facilities Sampled

- Enforcement Actions Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- Compliance Schedules Issued/Schedules Required
  - -- Notices of Violations Issued to SIUs
  - -- Administrative Orders Issued to SIUs
  - -- Civil Suits Filed
  - -- Criminal Suits Filed
  - -- Significant Violators
  - -- Was Significant Violators List Published
  - -- Amount of Penalties Collected (Total Dollars/IU Assessed)
  - -- Other Actions (Sewer Bans, etc.)

Alternative 3 Contents, Continued:

Source: Pretreatment Compliance Inspections and Program Audits

Alternative 3 will contain data from the EPA guidance suggested formats for PCI and Program Audit checklists, including:

- PCI / Audit Identification Data
  - -- POTW NPDES Code
  - -- Date of PCI or Audit
  - -- Name of Auditor(s) or Inspectors(s)
  - -- Control Authority Representative

- Control Authority Pretreatment Program Overview Data
  - -- Number of Categorical Industrial Users
  - -- Number of Significant Noncategorical Industrial Users
  - -- Number of Noncategorical Industrial Users
  - -- Local Definition of "Significant Industrial User"
  - -- Percentage of Total Wastewater Flow to POTW that is Attributed to Industrial Users
  - -- Recent Changes to Control Authority Pretreatment Program

- Control Authority Inspection and Monitoring of Industrial Users
  - -- Indicators About the Frequency of Inspections of Categorical and Significant Noncategorical IUs
  - -- Indicators About the Frequency of Control Authority Sampling of Categorical and Significant Noncategorical IUs
  - -- Percentage of SIUs Not Inspected in the Past Year
  - -- Percentage of SIUs Not Sampled in the Past Year
  - -- Data About the Frequency of Sampling and Self-Monitoring Reports Conducted by Categorical and Significant Noncategorical IUs

- Count of SIUs Covered by a Control Mechanism
  - -- Number and Percentage of SIUs Covered by an Existing, Unexpired Permit, Contract, or Other Control Mechanism.
  - -- Number and Percentage of Permits That Need to be Issued

- IU Compliance and Enforcement Actions Data (Summary level only)
  - -- Percentage of All IUs Which Needed to Install Pretreatment Technologies and Have Done So.
  - -- Percentage of SIUs in Significant Noncompliance with Applicable Pretreatment Standards
  - -- Percentage of SIUs in Significant Noncompliance with Self-Monitoring Requirements
  - -- Percentage of SIUs in Significant Noncompliance with Reporting Requirements
  - -- Percentage of SIUs Subject to Some Kind of Enforcement Action During Past Year

- IU File Evaluation Data
  - -- Ranking or Code to Indicate the Adequacy and Any Major Deficiencies in the POTW IU Files Examined

Alternative 3 Contents, Continued:

- Evaluation Comments of Inspector/Auditor (To Be Stored as a Set of Ranking Codes)
  - -- Codes Ranking the POTW's Monitoring Program
  - -- Codes Ranking the POTW's Control Mechanisms
  - -- Codes Ranking IU Self-Monitoring Data and Reports
  - -- Codes Ranking Control Authority Enforcement Procedures
  - -- Codes Describing Other Findings
  - -- Codes Describing Suggested Follow Up Actions

- Background Control Authority Data
  - -- There was a substantial amount of other data in the Program Audit checklist that may be very useful for background data, since it may not change significantly over time. EPA will have to decide what data should be kept on-line for background purposes.

Data to be Contained in Alternative 4

Source: POTW Pretreatment Performance Summary

Alternative 4 will contain the same data from the Pretreatment Performance Summaries as Alternative 2 including:

- Geographic Information About POTWs and Counts of IUs
  - -- NPDES Number
  - -- Name, Address, Contact Person, Telephone Number, etc. (Some of this data may be referenced from other PCS files and not duplicated here.)
  - -- Total Number of Categorical IUs
  - -- Total Number of Noncategorical IUs
  - -- Reporting Period

- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users, except where noted)
  - -- No. of SIUs Submitting BMRs/No. Required (Categorical Only)
  - -- No. of SIUs Submitting 90-Day Compliance Reports/No. Required (Categorical Only)
  - -- No. of SIUs Submitting Semi-Annual Report/No. Required
  - -- No. of SIUs Meeting Compliance Schedule/No. Required to Meet Schedule
  - -- No. of SIUs in Significant Noncompliance/Total No. of SIUs
  - -- Rate of Significant Noncompliance for all SIUs (Categorical and Noncategorical Combined)

- Compliance Monitoring Program Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- No. of Non-Sampling Inspections Conducted
  - -- No. of Sampling Visits Conducted
  - -- No. of Facilities Inspected (Non-Sampling)
  - -- No. of Facilities Sampled

- Enforcement Actions Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- Compliance Schedules Issued/Schedules Required
  - -- Notices of Violations Issued to SIUs
  - -- Administrative Orders Issued to SIUs
  - -- Civil Suits Filed
  - -- Criminal Suits Filed
  - -- Significant Violators
  - -- Was Significant Violators List Published
  - -- Amount of Penalties Collected (Total Dollars/IU Assessed)
  - -- Other Actions (Sewer Bans, etc.)

Alternative 4 Contents, Continued:

Source: Pretreatment Compliance Inspections and Program Audits

Alternative 4 will contain the same data from Pretreatment Compliance Inspections and Program Audits as Alternative 3, including summary data concerning:

- PCI / Audit Identification Data
  - -- POTW NPDES Code
  - -- Date of PCI or Audit
  - -- Name of Auditor(s) or Inspectors(s)
  - -- Control Authority Representative

- Control Authority Pretreatment Program Overview Data
  - -- Number of Categorical Industrial Users
  - -- Number of Significant Noncategorical Industrial Users
  - -- Number of Noncategorical Industrial Users
  - -- Local Definition of "Significant Industrial User"
  - -- Percentage of Total Wastewater Flow to POTW that is Attributed to Industrial Users
  - -- Recent Changes to Control Authority Pretreatment Program

- Control Authority Inspection and Monitoring of Industrial Users
  - -- Indicators About the Frequency of Inspections of Categorical and Significant Noncategorical IUs
  - -- Indicators About the Frequency of Control Authority Sampling of Categorical and Significant Noncategorical IUs
  - -- Percentage of SIUs Not Inspected in the Past Year
  - -- Percentage of SIUs Not Sampled in the Past Year
  - -- Data About the Frequency of Sampling and Self-Monitoring Reports Conducted by Categorical and Significant Noncategorical IUs

- Count of SIUs Covered by a Control Mechanism
  - -- Number and Percentage of SIUs Covered by an Existing, Unexpired Permit, Contract, or Other Control Mechanism.
  - -- Number and Percentage of Permits That Need to be Issued

- IU Compliance and Enforcement Actions Data (Summary level only)
  - -- Percentage of All IUs Which Needed to Install Pretreatment Technologies and Have Done So.
  - -- Percentage of SIUs in Significant Noncompliance with Applicable Pretreatment Standards
  - -- Percentage of SIUs in Significant Noncompliance with Self-Monitoring Requirements
  - -- Percentage of SIUs in Significant Noncompliance with Reporting Requirements
  - -- Percentage of SIUs Subject to Some Kind of Enforcement Action During Past Year

Alternative 4 Contents, Continued:

- IU File Evaluation Data
  - -- Ranking or Code to Indicate the Adequacy and Any Major Deficiencies in the POTW IU Files Examined

- Evaluation Comments of Inspector/Auditor (To Be Stored as a Set of Ranking Codes)
  - -- Codes Ranking the POTW's Monitoring Program
  - -- Codes Ranking the POTW's Control Mechanisms
  - -- Codes Ranking IU Self-Monitoring Data and Reports
  - -- Codes Ranking Control Authority Enforcement Procedures
  - -- Codes Describing Other Findings
  - -- Codes Describing Suggested Follow Up Actions

- Background Control Authority Data
  - -- There was a substantial amount of other data in the Program Audit checklist that may be very useful for background data, since it may not change significantly over time. EPA will have to decide what data should be kept on-line for background purposes.

Source: Various Industrial User Reports

In Alternative 4, Industrial User data will only be tracked for IUs where the State or Regional Approval Authority also acts as the Control Authority.

- General Industrial User Identification Data
  - -- Permit or Contract Number
  - -- Name of Industrial User
  - -- Contact Person
  - -- Telephone Number
  - -- SIC Codes

- Sampling and Reporting Requirements
  - -- Required Sampling Frequency
  - -- Actual Sampling Frequency
  - -- Required Date of Report Submission
  - -- Actual Date of Report Submission

- Pollutant Limits Data
  - -- Pollutant Parameters
  - -- Maximum Concentration and Quantity Limits
  - -- Minimum Concentration Limits
  - -- Average Concentration and Quantity Limits

- Monitoring Data
  - -- Date of Sample
  - -- Concentration or Quantity of Each Parameter
  - -- Average Concentration or Quantity of Each Parameter
  - -- Type of Monitoring Sample (Self-Monitored, Scheduled, Unscheduled, Demand)

Alternative 4 Contents, Continued:

- Industrial User Technological Compliance Schedule
- Industrial User Inspections by Control Authority
  -- Date of Inspection
  -- Type of Inspection
- Slug Load Data
- Enforcement Actions Taken (Detailed Data)

Data to be Contained in Alternative 5

Source: POTW Pretreatment Performance Summary

Alternative 5 will contain the same data from the Pretreatment Performance Summaries as Alternative 2 including:

- Geographic Information About POTWs and Counts of IUs
  - -- NPDES Number
  - -- Name, Address, Contact Person, Telephone Number, etc. (Some of this data may be referenced from other PCS files and not duplicated here.)
  - -- Total Number of Categorical IUs
  - -- Total Number of Noncategorical IUs
  - -- Reporting Period

- Significant Industrial User Compliance Data (Summary level data would include separate listings for categorical and noncategorical users, except where noted)
  - -- No. of SIUs Submitting BMRs/No. Required (Categorical Only)
  - -- No. of SIUs Submitting 90-Day Compliance Reports/No. Required (Categorical Only)
  - -- No. of SIUs Submitting Semi-Annual Report/No. Required
  - -- No. of SIUs Meeting Compliance Schedule/No. Required to Meet Schedule
  - -- No. of SIUs in Significant Noncompliance/Total No. of SIUs
  - -- Rate of Significant Noncompliance for all SIUs (Categorical and Noncategorical Combined)

- Compliance Monitoring Program Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- No. of Non-Sampling Inspections Conducted
  - -- No. of Sampling Visits Conducted
  - -- No. of Facilities Inspected (Non-Sampling)
  - -- No. of Facilities Sampled

- Enforcement Actions Data (Summary level data would include separate listings for categorical and noncategorical users)
  - -- Compliance Schedules Issued/Schedules Required
  - -- Notices of Violations Issued to SIUs
  - -- Administrative Orders Issued to SIUs
  - -- Civil Suits Filed
  - -- Criminal Suits Filed
  - -- Significant Violators
  - -- Was Significant Violators List Published
  - -- Amount of Penalties Collected (Total Dollars/IU Assessed)
  - -- Other Actions (Sewer Bans, etc.)

Alternative 5 Contents, Continued:

Source: Pretreatment Compliance Inspections and Program Audits

Alternative 5 will contain the same data from Pretreatment Compliance Inspections and Program Audits as Alternative 3, including summary data concerning:

- PCI / Audit Identification Data
  - -- POTW NPDES Code
  - -- Date of PCI or Audit
  - -- Name of Auditor(s) or Inspectors(s)
  - -- Control Authority Representative

- Control Authority Pretreatment Program Overview Data
  - -- Number of Categorical Industrial Users
  - -- Number of Significant Noncategorical Industrial Users
  - -- Number of Noncategorical Industrial Users
  - -- Local Definition of "Significant Industrial User"
  - -- Percentage of Total Wastewater Flow to POTW that is Attributed to Industrial Users
  - -- Recent Changes to Control Authority Pretreatment Program

- Control Authority Inspection and Monitoring of Industrial Users
  - -- Indicators About the Frequency of Inspections of Categorical and Significant Noncategorical IUs
  - -- Indicators About the Frequency of Control Authority Sampling of Categorical and Significant Noncategorical IUs
  - -- Percentage of SIUs Not Inspected in the Past Year
  - -- Percentage of SIUs Not Sampled in the Past Year
  - -- Data About the Frequency of Sampling and Self-Monitoring Reports Conducted by Categorical and Significant Noncategorical IUs

- Count of SIUs Covered by a Control Mechanism
  - -- Number and Percentage of SIUs Covered by an Existing, Unexpired Permit, Contract, or Other Control Mechanism.
  - -- Number and Percentage of Permits That Need to be Issued

- IU Compliance and Enforcement Actions Data (Summary level only)
  - -- Percentage of All IUs Which Needed to Install Pretreatment Technologies and Have Done So.
  - -- Percentage of SIUs in Significant Noncompliance with Applicable Pretreatment Standards
  - -- Percentage of SIUs in Significant Noncompliance with Self-Monitoring Requirements
  - -- Percentage of SIUs in Significant Noncompliance with Reporting Requirements
  - -- Percentage of SIUs Subject to Some Kind of Enforcement Action During Past Year

Alternative 5 Contents, Continued:

- IU File Evaluation Data
  - -- Ranking or Code to Indicate the Adequacy and Any Major Deficiencies in the POTW IU Files Examined

- Evaluation Comments of Inspector/Auditor (To Be Stored as a Set of Ranking Codes)
  - -- Codes Ranking the POTW's Monitoring Program
  - -- Codes Ranking the POTW's Control Mechanisms
  - -- Codes Ranking IU Self-Monitoring Data and Reports
  - -- Codes Ranking Control Authority Enforcement Procedures
  - -- Codes Describing Other Findings
  - -- Codes Describing Suggested Follow Up Actions

- Background Control Authority Data
  - -- There was a substantial amount of other data in the Program Audit checklist that may be very useful for background data, since it may not change significantly over time. EPA will have to decide what data should be kept on-line for background purposes.

Source: Various Industrial User Reports

In Alternative 5, participating Approval Authorities will decide which Industrial Users and how much data they will track.

- General Industrial User Identification Data
  - -- Permit or Contract Number
  - -- Name of Industrial User
  - -- Contact Person
  - -- Telephone Number
  - -- SIC Codes

- Sampling and Reporting Requirements
  - -- Required Sampling Frequency
  - -- Actual Sampling Frequency
  - -- Required Date of Report Submission
  - -- Actual Date of Report Submission

- Pollutant Limits Data
  - -- Pollutant Parameters
  - -- Maximum Concentration and Quantity Limits
  - -- Minimum Concentration and Quantity Limits
  - -- Average Concentration and Quantity Limits
  - -- Minimum Average Concentration and Quantity Limits
  - -- Production Based Limits

Alternative 5 Contents Continued:

- Monitoring Data
  - -- Date of Sample
  - -- Concentration or Quantity of Each Parameter
  - -- Average Concentration or Quantity of Each Parameter
  - -- Type of Monitoring Sample (Self-Monitored, Scheduled, Unscheduled, Demand)
  - -- Production Level
- Industrial User Technological Compliance Schedule
- Industrial User Inspections by Control Authority
  - -- Date of Inspection
  - -- Detailed Results of Inspection
  - -- Suggested Follow Up Actions
- Slug Load Data (Detailed Data)
- Enforcement Actions Taken (Detailed Data)

PART IV: PRETREATMENT PERMITS AND ENFORCEMENT TRACKING SYSTEM INITIAL SYSTEM DESIGN

TABLE OF CONTENTS

I. PPETS INITIAL SYSTEM DESIGN INTRODUCTION

The National Pretreatment Program requires that EPA implement nationwide regulations controlling the pollutants discharged to Publicly Owned Treatment Works (POTWs) by Industrial Users (IUs). EPA initiated a study to determine the information requirements necessary to oversee the program implementation and regulation; the results were presented in the Summary of Pretreatment Tracking Needs.

From this study, a general definition and design were developed for a Pretreatment Permits and Enforcement Tracking System (PPETS). PPETS will be an information system, designed to help EPA and delegated States implement and enforce pretreatment regulations. The system will provide EPA Headquarters with summary pretreatment statistics to highlight problem areas and help EPA direct its resources toward the greatest needs. PPETS will also provide more detailed pretreatment data for EPA Regions and delegated State Approval Authorities to help them with local oversight and enforcement of pretreatment programs.

The PPETS system will be implemented in a two step approach:

- Step 1: Implementation of an automated system to track data from Pretreatment Compliance Inspections (PCIs), Pretreatment Program Audits, and Pretreatment Performance Summaries.
- Step 2: Enhancement of the PPETS system to track certain data for a limited number of Industrial Users.

The Step 1 PPETS system corresponds to the proposed Alternative 3 system defined in the Evaluation of Alternatives for the Pretreatment Permits and Enforcement Tracking System. The Step 2 system corresponds to Alternative 4.

The phased approach is recommended for two reasons. First, it will expedite the creation of an automated pretreatment tracking system to meet EPA's immediate needs. Second, it will provide time for EPA Regions and delegated States to develop and implement their pretreatment programs, before

the full PPETS system becomes operational. Exhibit I-1 contains a timeline illustrating the development of PPETS in relationship to Pretreatment Program activities.

Both Steps 1 and 2 will be implemented as enhancements to the current Permits Compliance System (PCS). This will reduce the need for purchases of new computer equipment, and should facilitate PPETS training since personnel in EPA Regions and some delegated States are already familiar with PCS. Because the tracking requirements that would be met by PPETS are very similar to those of PCS, many PCS software modules could be modified to support PPETS, thus reducing the development cost of the system. In addition, it will help ensure the consistency and compatibility of data in EPA tracking systems.

This document provides an initial design for the PPETS system. It presents a basic logical system design and describes the capabilities required by PPETS users. The document should form the basis of a detailed PPETS design and workplan to be developed by EPA.

The paper is divided into two main sections -- one focusing on Step 1 and the other on Step 2. Each section contains six parts:

- Overall System Description
- Input Data
- Output Reports
- File Structure
- Software Functions
- Data Element Listing.

PPETS AND PRETREATMENT PROGRAM TIMELINE

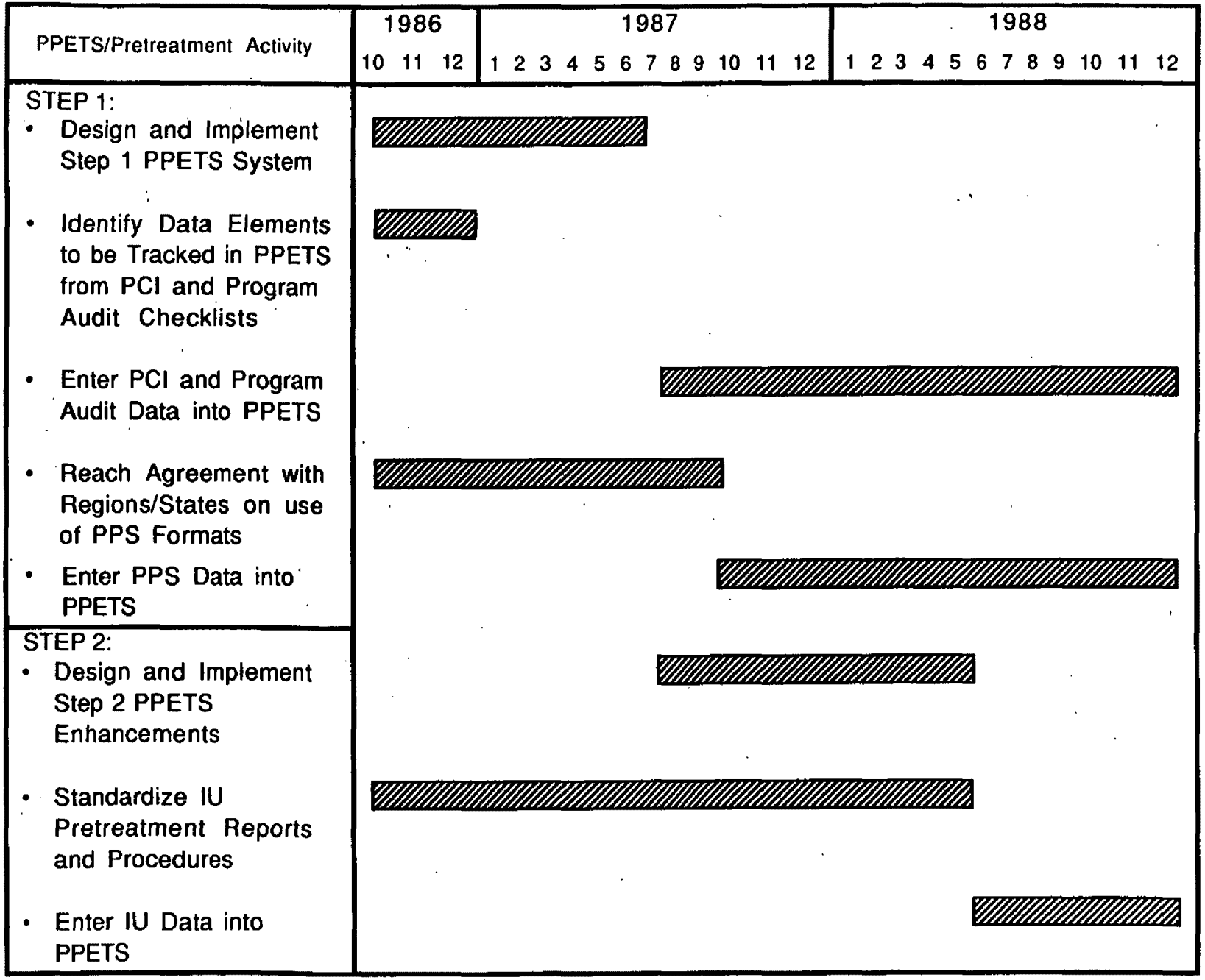


EXHIBIT I-1

II. STEP 1: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS

A. Step 1 Overall System Description

In Step 1, EPA will develop a version of the Pretreatment Permits and Enforcement Tracking System (PPETS) that should serve many of the needs of EPA Headquarters, EPA Regional Offices, and delegated State Approval Authorities. In particular, Step 1 should support pretreatment decision making in the following areas:

- Determine the Effectiveness of the National Pretreatment Program (NPP)
- Evaluate Regional Oversight Effectiveness
- Determine POTW Compliance with Pretreatment Program Implementation Requirements
- Determine Significant Industrial User Pretreatment Compliance
- Evaluate State and Local Program Effectiveness.

In order to support these data needs, the system will rely on several key input documents, including Pretreatment Compliance Inspections (PCIs), Pretreatment Program Audits, and Pretreatment Performance Summaries (PPSs). EPA has issued pretreatment guidances containing suggested formats for PCI checklists, Program Audit checklists, and PPSs. These suggested formats will form the basis of the Step 1 PPETS system.

Step 1 will be designed and implemented as an enhancement to the current Permit Compliance System. Two new files, the PCI-Audit and PPS-Data files, will be added to PCS. PCS was chosen as the basis for PPETS for several reasons. First, much of the pretreatment data will have greater utility when combined with current NPDES data. For example, it may be useful to examine whether POTWs with NPDES violations also have poor records of pretreatment enforcement and compliance. Second, designing the system as a modification to PCS will ensure the consistency and compatibility of all data. In addition,

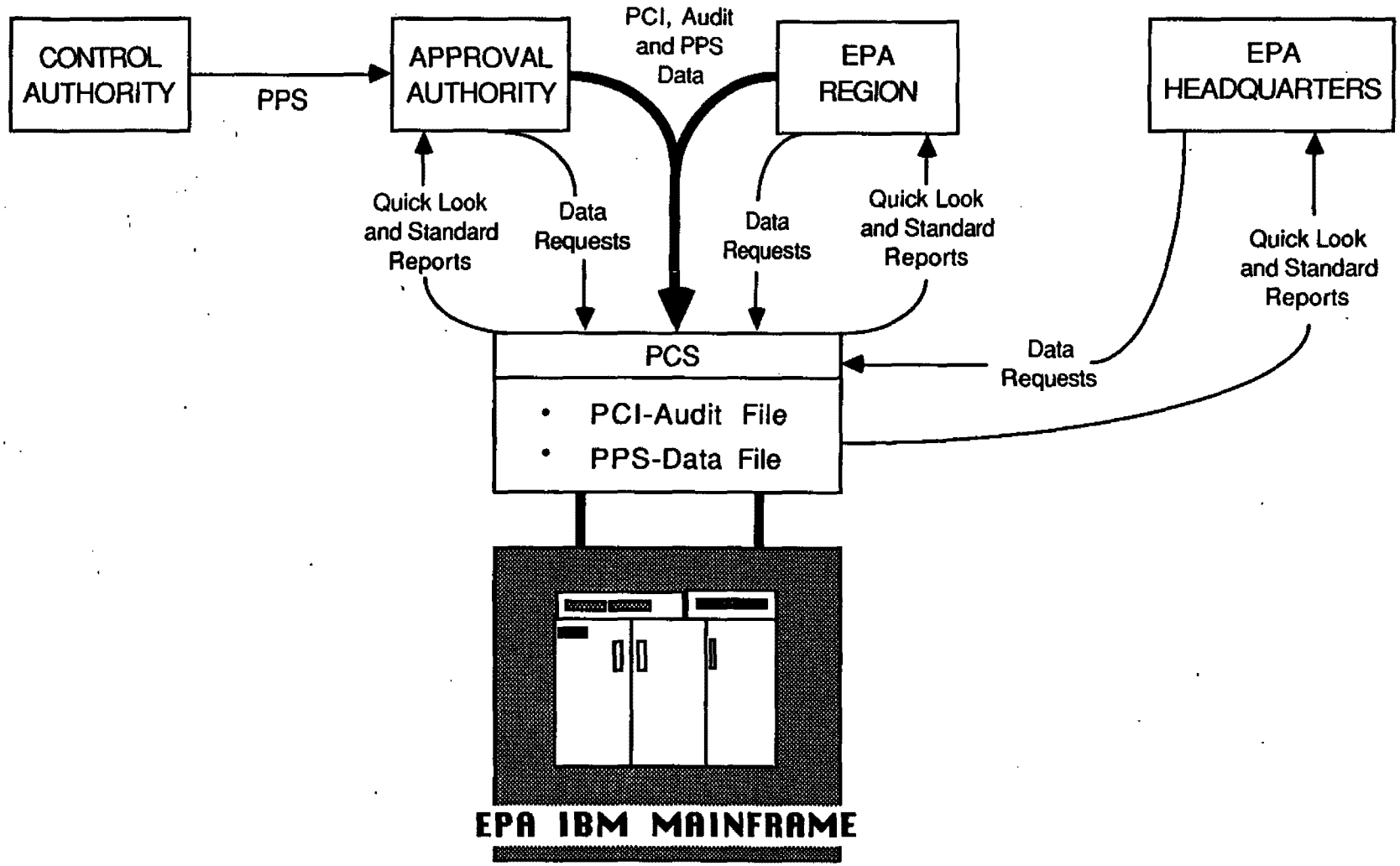
personnel at EPA and many delegated States already have a basic understanding of PCS, and a PCS implementation will probably cost less than developing a whole new system.

As an expansion of the PCS system, PPETS will be implemented on the EPA IBM 3090 Mainframe in Research Triangle Park, North Carolina. PCS is connected to the EPA Regions and States via terminals and telecommunication lines. A diagram illustrating the major data flows for Step 1 is contained in Exhibit II-1.

PPETS will provide EPA Headquarters, Regions, and delegated States with new standard reports summarizing pretreatment data nationwide, region-wide, statewide, and even by POTW. In addition, users will be able to request Quick Look Reports to list data in user-designed formats. The system will provide consistent national pretreatment statistics and identify problem areas in national and local pretreatment programs. PPETS will help point out areas of pretreatment program implementation and enforcement that require special attention by EPA and the delegated States.

PPETS will be designed to be user-friendly. The data will be readily accessible to all program staff at EPA Headquarters, Regions, and Approval Authorities. Personnel who are untrained in computer programming should have no trouble accessing the data. New software routines will be required to enter, update, and manipulate the PPETS data. This additional software will be compatible with PCS, so that personnel currently using PCS should have no trouble learning PPETS.

Although the Step 1 PPETS system will be developed as a single package, its usage will be phased in over time. This will allow sufficient time for the EPA Regions and delegated States to implement the necessary programmatic procedures to support the automated system. In particular, the Pretreatment Program Audit and Pretreatment Compliance Inspection tracking capabilities will be used first. Pretreatment Performance Summary capabilities will be phased in later, as PPS procedures are standardized and Control Authorities become better able to submit more timely and accurate pretreatment statistics.



STEP 1: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS

Exhibit II-1

B. Step 1 Input Data

The Step 1 PPETS system will rely on three major input documents as sources of pretreatment data. The inputs are:

- Pretreatment Compliance Inspections (PCIs)
- Pretreatment Program Audits
- Pretreatment Performance Summaries (PPSs).

Pretreatment Program Audits and PCIs are currently being performed on Control Authorities by EPA Regions or delegated State Approval Authorities. PPSs have been proposed to be included with Control Authority Annual Reports.

Pretreatment Compliance Inspections are intended to be performed annually (except in Program Audit years) for each Control Authority. The purpose of the PCI is to evaluate an approved POTW pretreatment program. The PCI is designed to verify the compliance status of the POTW and focuses primarily on the compliance monitoring and enforcement activities of the POTW.

Program Audits are also performed as a means of evaluating pretreatment program implementation. However, the audit is a comprehensive review of all elements of an approved POTW pretreatment program. Each Control Authority is scheduled to be audited at least once every five years.

Pretreatment Performance Summaries are one page statistical summaries describing a Control Authority's pretreatment program enforcement. They contain information on general POTW characteristics, Significant Industrial User compliance, the compliance monitoring program, and enforcement actions taken.

EPA has issued suggested checklists for PCIs and Program Audits, and a suggested format for PPSs. These suggested formats will be the basis of the Step 1 PPETS system. However, implementation of PPETS may require several changes to these input formats and reporting procedures. More rigorous data and submission procedures will be necessary to support a consistent and

reliable tracking system. Some of the changes that may be needed include:

- Suggested formats for PCI checklists, Program Audit checklists, and PPSs may have to be made mandatory.
- Standardized schedules will have to be developed for data submission.
- Data from delegated State Approval Authorities that decide not to participate in PPETS will have to be passed to the responsible EPA Regions.
- Standard definitions for data elements and classifications used on PPSs, PCIs, and Program Audit checklists--such as 'Significant Industrial User' and 'Significant Noncompliance'--should be developed.

These changes may take some time to be developed. They must be implemented, however, if PPETS is to meet EPA's requirements. Although it may be feasible to phase in some of these changes during the first 6 to 18 months of PPETS operations, they are critical to PPETS's success.

C. Step 1 Output Reports

Output reports will be very important in determining the usefulness of PPETS in meeting EPA's needs. Below are listed twenty-six suggested reports. Two are modifications of current PCS reports:

- Quick Look Report
- Milestone Report.

Fourteen would be new standardized reports designed for PPETS and derived from the PCI and Program Audit data:

- Pretreatment Compliance Inspection (PCI) Report
- Pretreatment Program Audit Report
- Control Authority Pretreatment Program Overview Report
- Control Authority Pretreatment Program Trend Overview
- Control Authority Pretreatment Program Modification Update Report
- IU Inspection and Monitoring Deficiency Report
- Control Mechanism Deficiency Report
- Enforcement Procedure Cross-sectional Comparison Report
- Compliance Tracking Deficiency Report
- File Evaluation Deficiency Report
- Control Authority Pretreatment Program Deficiency Cross-sectional Summary
- Control Authority Pretreatment Program Deficiency Trend Summary
- PCI and Program Audit Data Status Report
- Control Authority Mailing Labels.

Ten additional new standardized reports will be derived from PPS data:

- Control Authority Pretreatment Performance Summary
- PPS Aggregate Totals Summary Report
- SIU Compliance Cross-sectional Comparison Report
- Compliance Monitoring Program Cross-sectional Comparison Report

- Enforcement Actions Cross-sectional Comparison Report
- SIU Compliance Trend Report
- Compliance Monitoring Program Trend Report
- Enforcement Actions Trend Report
- PPS Verification Report
- Regulated Industrial User Summary Location Report.

The above listings are only suggested output reports. Other reports and applications of PPETS data can be developed when needs arise.

Currently, different Approval and Control Authorities have different submission schedules for PCIs, Program Audits, and PPSs. Most PPETS data will probably be updated continuously throughout the year. Outputs based on this data, therefore, will not reflect conditions on a specific date with full accuracy, but will be compiled from the latest information available.

The following sections describe each of the suggested reports in greater detail. For selected reports, sample formats have been provided to give a more concrete idea of how PPETS outputs could be used; these formats are preliminary samples only and will require extensive review by program personnel before being finalized.

Modified PCS Reports

1. Quick Look Report

PPETS users will have access to the PCS Quick Look Report. The Quick Look Report is a flexible report that gives the user control over the contents and design of the output in order to meet specialized information needs. The Quick Look Report software will have to be modified for PPETS, but will still have procedures and formats similar to those currently in PCS. An example of a Quick Look Report that could be used in PPETS would be any subset of PCI data listed out by the POTW's NPDES Number.

2. Milestone Report

PPETS users will also have access to the current PCS Milestone Report. The Milestone Report provides the user with a tally in matrix format of the number of occurrences of different data values for any two data elements. The Milestone Report software will have to be modified for PPETS, but will still have procedures and formats similar to those currently in PCS. An example of a Milestone Report that could be used in PPETS would be the number of Control Authorities, within different States, which have published lists of significant violators, and the total number of Control Authorities within each State.

PPETS Standard Reports Derived From PCI and Program Audit Data

3. Pretreatment Compliance Inspection (PCI) Report

The Pretreatment Compliance Inspection Report lists all the data stored in PPETS from a specific PCI. Users will specify a particular PCI by identifying the Control Authority and inspection year. (Specifying a month may also be necessary.) This report will give detailed information about a specific Control Authority, and will probably be especially useful to the supervising Approval Authority.

4. Pretreatment Program Audit Report

The Pretreatment Program Audit Report lists all the data stored in PPETS from a specific Program Audit. Users will specify a particular Program Audit by identifying the Control Authority and audit year. This report will give detailed information about a specific Control Authority, and will probably be especially useful to the supervising Approval Authority.

5. Control Authority Pretreatment Program Overview Report

The Control Authority Pretreatment Program Overview Report provides overview data from PCIs for the Control Authorities across a State or Region. Some data to be included may be the number of Industrial Users, percentage of IU wastewater flow, and sludge contamination from IUs.

6. Control Authority Pretreatment Program Trend Overview

The Control Authority Pretreatment Program Trend Overview Report will track PCI overview data for a particular Control Authority over a period of time (perhaps 5 years). Some of the data may include the number of Industrial Users, percentage of IU wastewater flow, and incidences of sludge contamination due to IU wastes. The report will illustrate how the general IU characteristics in a Control Authority's jurisdiction have changed over time.

7. Control Authority Pretreatment Program Modification Update Report

The Control Authority Pretreatment Program Modification Update Report will list all the Control Authorities, within a particular jurisdiction (State, Sub-Region, Region), that have made modifications to their pretreatment programs. The report will include the data identifying the Control Authority (name, NPDES number, etc.), the program elements changed, and whether the change was submitted for approval. This report will be especially useful to Approval Authorities to ensure that their files accurately reflect the programs in place at the Control Authorities. Exhibit II-2 contains a sample format for this report.

8. IU Inspection and Monitoring Deficiency Report

The IU Inspection and Monitoring Deficiency Report will list those Control Authorities where PCIs have uncovered deficiencies in procedures for the inspection and monitoring of Industrial Users. For a given State, Approval

CONTROL AUTHORITY PRETREATMENT PROGRAM

MODIFICATION UPDATE REPORT

Approval Authority: AAAAAAA

Date From: MM/DD/YY
To: MM/DD/YY

Control Authority Identification	Program Element Changed	Submitted for Approval
POTW: BBBBBBBBBB NPDES # 111111111	Legal Authority Resources	Yes No
POTW: CCCCCCCCCC NPDES # 222222222	Control Mechanism Implementation	Yes
POTW: DDDDDDDDDD NPDES # 333333333	Local Limits Inspection and Monitoring Program	Yes Yes
POTW: EEEEEEEEEE NPDES # 444444444	Enforcement Program	No

EXHIBIT II-2

Authority, Region, or the Nation, this report will list all the deficient Control Authorities and the types of problems found. The report will help point out those areas where the delegated States and EPA Regions should direct their efforts. Exhibit II-3 contains a sample format for this report.

9. Control Mechanism Deficiency Report

The Control Mechanism Deficiency Report will list those Control Authorities where PCIs have uncovered deficiencies in existing control mechanisms. For a given State, Approval Authority, Region, or the Nation, this report will list all the deficient Control Authorities, the types of problems found, and the percentage of SIUs not currently covered by a control mechanism. The report will help point out areas where the delegated States and EPA Regions should direct their efforts. The format for the report will be similar to the format for the IU Inspection and Monitoring Deficiency Report illustrated in Exhibit II-3.

10. Enforcement Procedure Cross-sectional Comparison Report

The Enforcement Procedure Cross-sectional Comparison Report will compare enforcement procedure data from PCI checklists across different jurisdictions and oversight areas. Data about noncompliance rates, types of enforcement actions taken, and enforcement procedures could be compared among Control Authorities, Approval Authorities, States, and Regions. Users will be able to specify the level of detail they require.

11. Compliance Tracking Deficiency Report

The Compliance Tracking Deficiency Report will list those Control Authorities where PCIs have uncovered deficiencies in compliance tracking. For a given State, Approval Authority, Region, or the Nation, this report will list all the deficient Control Authorities and the types of problems found. The report will help point out those areas where the delegated States and EPA

IU INSPECTION AND MONITORING DEFICIENCY REPORT

Approval Authority: AAAAAAA

Date from: MM/DD/YY
to: MM/DD/YY

Control Authority	Deficiency Found
POTW: BBBBBBBBBB NPDES # 111111111	20% of SIUs not sampled during past year. 30% of SIUs not inspected during past year.
POTW: CCCCCCCCCC NPDES # 222222222	10% of SIUs not inspected during past year.
POTW: DDDDDDDDDD NPDES # 333333333	Categorical IUs are not required to perform and submit self-monitoring reports at least twice a year.
POTW: EEEEEEEEEE NPDES # 444444444	15% of SIUs not sampled during past year. 25% of SIUs not inspected during past year.

EXHIBIT II-3

Regions should direct their efforts. The format for the report will be similar to the format for the IU Inspection and Monitoring Deficiency Report illustrated in Exhibit II-3.

12. File Evaluation Deficiency Report

The File Evaluation Deficiency Report will list those Control Authorities where PCIs have uncovered deficiencies in Industrial User files. For a given State, Approval Authority, Region, or the Nation, this report will list all the deficient Control Authorities and the types of problems found. The report will help point out those areas where the delegated States and EPA Regions should direct their efforts. The format for the report will be similar to the format for the IU Inspection and Monitoring Deficiency Report illustrated in Exhibit II-3.

13. Control Authority Pretreatment Program Deficiency Cross-sectional Summary

The Control Authority Pretreatment Program Deficiency Cross-sectional Summary will be a statistical summary of PCI results. For a given State, Region, or the Nation, the report will list the number of Control Authorities which had deficiencies in each pretreatment program area. The report will help point out those areas which Control Authorities are having the most trouble implementing, so that EPA and the States can target their efforts accordingly. Exhibit II-4 contains a sample format for this report. It would list National and Regional statistics for Control Authorities with pretreatment program deficiencies.

14. Control Authority Pretreatment Program Deficiency Trend Summary

The Control Authority Pretreatment Program Deficiency Trend Summary will be a statistical summary of PCI results over a period of time (perhaps 5 years). Users will specify the focus of the report, whether it is for a

CONTROL AUTHORITY PRETREATMENT PROGRAM DEFICIENCY CROSS-SECTIONAL SUMMARY

(Regional Statistics)

Date From: MM/DD/YY
To: MM/DD/YY

Region VI

State	Number of Control Authorities with Deficiencies in: Monitoring and Inspection	IU Self-Monitoring	Control Mechanisms	Enforcement Procedures	Compliance Tracking	File Evaluation
Arizona:	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)
Louisiana:	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)
New Mexico:	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)
Texas:	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)
Oklahoma:	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)	xx (yy%)
Region VI Totals:	XXX (YY%)	XXX (YY%)	XXX (YY%)	XXX (YY%)	XXX (YY%)	XXX (YY%)

EXHIBIT II-4

Control Authority, Approval Authority, State, Region, or the Nation. The report will list the number of Control Authorities, within the jurisdiction, which had deficiencies in each pretreatment program area for each of the last few years. The report will help point out those areas of pretreatment where improvement has occurred and those areas that need additional attention.

15. PCI and Program Audit Data Status Report

The PCI and Program Audit Data Status Report will describe the current status of the PCI and Program Audit data in the PPETS system. It will include the number of Control Authorities for which data is available, the number for which data is unavailable, and dates indicating the timeliness of the data. The report could list summary statistics for States, Regions, or the Nation, or it could list the specific Control Authorities by NPDES number and name.

16. Control Authority Mailing Labels

This report will print out mailing labels for all the Control Authorities within an Approval Authority's, State's, or Region's jurisdiction. The mailing labels could be printed with or without the cognizant official's name.

PPETS Standard Reports Derived From PPS Data

17. Control Authority Pretreatment Performance Summary

The Control Authority Pretreatment Performance Summary Report will print out a full Pretreatment Performance Summary for a specific Control Authority or POTW for a specific year. The report will be similar to the format contained in the EPA Pretreatment Compliance Monitoring and Enforcement Guidance. This report will give relatively detailed pretreatment statistics, including Significant Industrial User compliance data, Compliance Monitoring Program data, and Enforcement Action data. It should be especially useful to Approval Authorities overseeing POTWs.

18. PPS Aggregate Totals Summary Report

The PPS Aggregate Totals Summary Report aggregates the statistics on the PPS reports for an entire Approval Authority, State, Region, or for the Nation. The format will be the same as for the standard PPS report defined by EPA guidance, but the broader statistics will be more useful for EPA Regions and Headquarters.

19. SIU Compliance Cross-sectional Comparison Report

The SIU Compliance Cross-sectional Comparison Report will compare the SIU Compliance data from PPS reports across different jurisdictions and oversight areas. The report will include data about the reporting, discharge, and schedule compliance of Categorical and Noncategorical IUs. The report will give users the option to specify the level of detail they require, whether it is statistics for Control Authorities, or aggregate statistics for Approval Authorities, States, or Regions. Approval Authorities will be able to compare compliance rates across the Control Authorities they oversee and will be able to allocate their resources to the greatest need. EPA Headquarters and Regions could compare compliance among Approval Authorities and States and also focus their resources accordingly. Exhibit II-5 contains a sample format for this report. The format provides statistics for different Control Authorities and provides totals for the supervising Approval Authority.

20. Compliance Monitoring Program Cross-sectional Comparison Report

The Compliance Monitoring Program Cross-sectional Comparison Report will compare Compliance Monitoring Program data from PPS reports across different jurisdictions and oversight areas. The data will include the number and types of pretreatment visits and inspections conducted by Control Authorities. Users will be able to specify the level of detail they require, whether it is statistics for Control Authorities, or aggregate statistics for Approval Authorities, States, or Regions. Approval Authorities will be able to compare Monitoring Program data for the Control Authorities they oversee. EPA Regions

SIU COMPLIANCE CROSS-SECTIONAL COMPARISON REPORT

Approval Authority: AAAAAAAAAA

Date: MM/DD/YY

	BMRs Submit'd/Req'd	90-Day Comp. Report Submit'd/Req'd	Semi-Annual Report Submit'd/Req'd	Compliance Sched. Being Met/Req'd	Signif. Noncomp. Noncomp./Total No.	Total Signif. Noncomp. Rate
Control Authority 1						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Control Authority 2						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Control Authority 3						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Control Authority 4						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Control Authority 5						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Approval Authority						XX.X%
Total Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Tot. Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	

EXHIBIT II-5

will be able to compare data across Approval Authorities and States. The EPA Headquarters will be provided with a full set of oversight data for Control Authorities, Approval Authorities, States, and Regions. The format for the report will be similar to the format for the SIU Compliance Cross-sectional Comparison Report illustrated in Exhibit II-5.

21. Enforcement Actions Cross-sectional Comparison Report

The Enforcement Actions Cross-sectional Comparison Report will compare enforcement actions data from PPS reports across different jurisdictions and oversight areas. The data will include the number and types of enforcement actions taken by Control Authorities against pretreatment violators. Users will be able to specify the level of detail they require, whether it is statistics for Control Authorities, or aggregate statistics for Approval Authorities, States, or Regions. Approval Authorities will be able to compare enforcement data for the Control Authorities they oversee. EPA Regions will be able to compare data across Approval Authorities and States. The EPA Headquarters will be provided with a full set of oversight data for Control Authorities, Approval Authorities, States, and Regions. The format for the report will be similar to the format for the SIU Compliance Cross-sectional Comparison Report illustrated in Exhibit II-5.

22. SIU Compliance Trend Report

The SIU Compliance Trend Report will track the PPS SIU Compliance data for a particular jurisdiction over a period of time (perhaps 5 years). Users will choose a specific Control Authority, Approval Authority, State, or Region to be reported. National statistics and trends will also be available. The report will contain data describing the reporting, discharge, and schedule compliance rates for the chosen jurisdiction over a period of years. The report will help identify trends in pretreatment compliance; it will point out those areas of compliance that are improving and those that need special attention. Exhibit II-6 contains a sample format for this report. It would list the SIU Compliance Trend data for a specific Control Authority over 5 years and provide average compliance statistics during that period.

SIU COMPLIANCE TREND REPORT

Control Authority: CCCCCCCCCC

Date: MM/DD/YY

	BMRs Submit'd/Req'd	90-Day Comp. Report Submit'd/Req'd	Semi-Annual Report Submit'd/Req'd	Compliance Sched. Being Met/Req'd	Signif. Noncomp. Noncomp./Total No.	Total Signif. Noncomp. Rate
Year 1						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Year 2						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Year 3						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Year 4						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Year 5						XX.X%
Categorical	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
Noncategorical			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	
Control Authority						XX.X%
5 Yr. Average Cat.	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	xxxxx/xxxxx	
5 Yr. Avg. Noncat.			yyyyy/yyyyy	yyyyy/yyyyy	yyyyy/yyyyy	

EXHIBIT II-6

23. Compliance Monitoring Program Trend Report

The Compliance Monitoring Program Trend Report will track the PPS Compliance Monitoring Program data for a particular jurisdiction over a period of time (perhaps 5 years). Users will choose a specific Control Authority, Approval Authority, State, or Region to be reported. National statistics and trends will also be available. The report will contain data describing the number and types of pretreatment visits and inspections conducted in the chosen jurisdiction over a period of years. The report will help identify trends in pretreatment compliance monitoring; it will point out which areas are improving and which need special attention. The format for the report will be similar to the SIU Compliance Trend Report illustrated in Exhibit II-6.

24. Enforcement Actions Trend Report

The Enforcement Actions Trend Report will track the PPS Enforcement Actions data for a particular jurisdiction over a period of time (perhaps 5 years). Users will choose a specific Control Authority, Approval Authority, State, or Region to be reported. National statistics and trends will also be available. The report will contain data describing the number and types of enforcement actions taken by Control Authorities against pretreatment violators within the chosen jurisdiction over a period of years. The report will help identify trends in pretreatment enforcement; it will point out which areas are improving and which need special attention. The format for the report will be similar to the SIU Compliance Trend Report illustrated in Exhibit II-6.

25. PPS Verification Report

The PPS Verification Report will help verify that the data submitted by Control Authorities on Pretreatment Performance Summaries is consistent with data on PCIs and Program Audits. The report will list out those Control Authorities where significant discrepancies have been found. Since it is

likely that much of data will not match precisely, criteria will have to be established as to what is a significant discrepancy. This criteria may take the form of a fixed percentage, and a Control Authority will be listed on the report, if the variation between analogous data elements is greater than that percentage. This fixed percentage criteria may be incorporated into the software or entered by the user when the report is requested.

26. Regulated Industrial User Summary Location Report

The Regulated Industrial User Summary Location Report will list the total number of regulated Categorical IUs and Significant Noncategorical IUs within the jurisdiction of a Control Authority, Approval Authority, State, Region, or the Nation. The number of IUs will be calculated from the latest information available or for any past date entered by the user.

D. Step 1 File Structure

Step 1 will be implemented as two new data files in PCS, as illustrated in Exhibit II-7. The proposed new files are:

- PCI-Audit Data File
- PPS-Data File.

The PCI-Audit file will be logically linked to the current PCS Inspection file. The PCI-Audit records will correspond to records in the Inspection file and will be uniquely identified by NPDES Number and Inspection Date. PCI data will be stored in approximately 40 data fields, and Program Audit data will be stored in approximately 61 fields. Much of the background data about the name and location of the Control Authority facility will be referenced from the current PCS Permit-Facility data file in order to reduce any overlap of data.

Each Program Audit stored will use approximately 230 to 383 bytes of storage. PCIs will use approximately 69 to 115 bytes of storage. Program Audits are expected to be performed once every five years for POTWs with approved pretreatment programs; PCIs are expected to be performed annually in non-audit years. It is therefore expected that data from approximately 292 Program Audits and 1,169 PCIs will be added to the file each year, or that from 148 to 246 kilobytes of storage will be used each year.

The PPS-Data file will be a separate module in PCS, logically linked to the Permit-Facility file. Each record in the PPS-Data file will contain approximately 46 data elements and be uniquely identified by its NPDES number and PPS Reporting Period Start and End Dates. Background data about the name and location of the Control Authority facility will be referenced from the Permit-Facility data file, so there should be little or no overlap of data.

Each PPS-Data record will contain approximately 190 to 318 bytes of information. After all of the local pretreatment programs are approved nationwide, it is estimated that PPETS will have to store data for 1,510 POTWs. This means that from 287 to 480 kilobytes of data will be added to the

STEP 1 FILE STRUCTURE

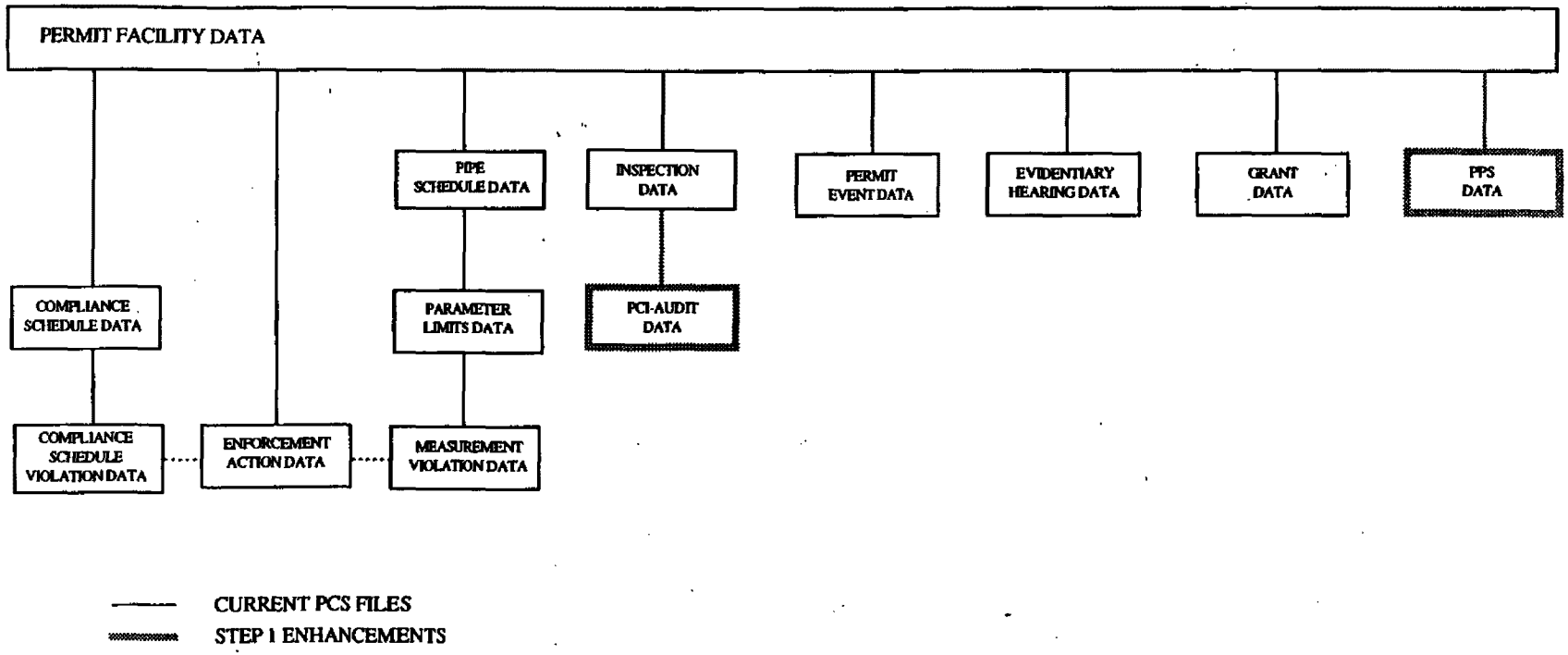


Exhibit II-7

system during each PPS reporting period. The overall size of the PPS-Data file will depend upon the number of year's data kept on-line and whether PPS updates will be required once a year or more often.

One issue that will have to be resolved is how to classify those PPSs that are compiled by Approval Authorities. There are two suggested methods for doing this, depending upon whether the Approval Authority is responsible for completing one PPS for all of the POTWs for which it acts as Control Authority, or one PPS for each of these POTWs. If the Approval Authority has to complete only one PPS each year, then the data could be entered into PPETS with a dummy NPDES number referring to the Approval Authority. If the Approval Authority completes a PPS for each POTW where it acts as Control Authority, then those PPSs could be entered under the POTW's NPDES number along with an additional code indicating that the PPS was completed by the Approval Authority.

E. Step 1 Software Functions

Implementation of Step 1 will require adding new software routines to PCS for entry and manipulation of PPETS data. Several PCS programs will have to be modified including:

- PCS Edit Program
- PCS-ADE Program
- PCS Update Program
- PCS Retrieval Reports
- PCS Sequential File Extract
- PCS Archival Procedures.

The PCS Edit program is a batch program used to enter, modify, and delete data in the PCS system. Users create a separate file of new records and data modifications to be added to PCS. The Edit program checks the entries for accuracy and stores them in a temporary file to await a PCS update. The program creates a report, that is sent to the user, describing the results of the batch run and indicating any errors found. Twice a week, the PCS Update program is run to load data from the temporary files into the actual PCS files. The PCS-ADE program performs functions similar to the Edit program except that it is interactive.

Step 1 will require new software modules be added to the PCS Edit and PCS-ADE programs, along with some modifications to the current modules. Any new software modules should be designed for simplicity of use and must maintain PCS security measures. The modules also must perform edit checks to help ensure reliable data. For example, edit checks may ensure that PCI, Audit, and PPS data can only be entered for POTWs which have an established facility record. In addition, the PCS Update program will require modifications, so that it can handle the new PPETS data.

Two current PCS retrieval reports, the Quick Look and Milestone reports, will be very useful for analyzing PPETS data. The software for these reports will have to be modified to accept data from the new PCI-Audit and PPS-Data

files. Additional retrieval software will be required to implement the Step 1 standard reports previously described.

The Sequential File Extract creates tape data sets of PCS information. The data on these tapes can then be downloaded onto Regional and State systems or manipulated using high-level languages, like SAS and FOCUS. Step 1 will require modification of the Sequential File Extract software to include the PPETS data.

PCS archival procedures may also require modification for PPETS. Under current procedures, a data archival takes place once a year. During the archival, measurement data that is more than 2 years old is moved to a separate area of the data base. The information is still kept on-line, but it is in a less frequently used area of memory; this expedites retrievals of more current data. It is expected that at some time in the future, the oldest data in PCS will have to be archived to tapes or disks. At least 5 years of Step 1 PPETS data should be kept on-line. This will facilite use of the PPETS trend reports described earlier.

All of the above software modifications will have to include transaction auditability data to record system usage. In the event of problems, this data could trace system usage to help resolve difficulties. As with the current PCS system, the PPETS transactions data will have to be obtained from the PCS User Support Staff.

F. Step 1 Data Element Listing

The Step 1 data elements will be derived from report formats contained in current EPA guidances. These report formats include:

- Pretreatment Compliance Inspection (PCI) Checklists
- Pretreatment Program Audit Checklists
- Pretreatment Performance Summaries (PPS).

The PCI and Program Audit Checklists include data from a wide variety of pretreatment areas including: program overview, program modifications, inspection and monitoring procedures, control mechanism evaluation, enforcement procedures, compliance tracking procedures, and IU file evaluation. Much of the data from the checklists will be useful to the PPETS system. It is currently estimated that PPETS will track 48 data element fields from PCIs and 69 fields from Program Audits. The two checklists have some elements in common and some elements that overlap with current PCS data. When a detailed record structure is developed for the PCI-Audit file, it should be designed to maximize the number of common data definitions between the two checklists, while minimizing any data duplication with other PCS files.

The current PPS format contained in the EPA Pretreatment Compliance Monitoring and Enforcement Guidance will require up to 54 data element fields to store all of the listed information. (The exact number of data elements may vary depending upon the implementation design chosen.) Some of the background data from the general information section of the PPS is currently stored in the Permit-Facility data file in PCS. This data will be referenced from there and not duplicated in the PPS-Data file. All the rest of the PPS data elements can be combined to form a single record structure with the NPDES number and PPS Reporting Period Dates serving as identifying indices. These additional records would be stored in the PPS-Data file to be added to PCS.

Exhibits II-8, II-9, and II-10 contain detailed lists of the elements required to track the data contained on PCIs, Program Audits, and PPSs. The data element names are descriptive and were written to facilitate review of the list by management. The actual data element names will probably change when the system is implemented, but the data represented should remain the same.

In addition to the data actually on PCIs, Audits, and PPSs, the system will need to determine the levels of pretreatment oversight. Each POTW must have data indicating whether it is a Control Authority, whether the State or Region is acting as Control Authority, and whether the State or Region is acting as Approval Authority. This information is important when organizing the data into logical outputs. The implementation of this requirement is a detailed design issue that will have to be decided in the final PPETS system design.

STEP 1 DATA ELEMENTS (PRETREATMENT COMPLIANCE INSPECTION DATA)

Data Element Name	Category of Data	Data Type	Length
* NPDES Number	General Information	Common Key	9
* Inspection Date	General Information	Common Key	6
* Facility Name	General Information	Permit-Facility	30
* Facility Location Street Line 1	General Information	Permit-Facility	30
* Facility Location Street Line 2	General Information	Permit-Facility	30
* Facility Location City	General Information	Permit-Facility	23
* Facility Location State	General Information	Permit-Facility	2
* Facility Location Zip Code	General Information	Permit-Facility	9
* Cognizant Official	General Information	Permit-Facility	30
* Cognizant Official Telephone	General Information	Permit-Facility	10
Number of Categorical IUs that Discharge to POTW	Background Information	PCI-Audit	5
Number of Significant Noncategorical IUs that Discharge to POTW	Background Information	PCI-Audit	5
Number of Other Noncategorical IUs that Discharge to POTW	Background Information	PCI-Audit	5
Percent of Total Wastewater Flow that is From IUs	Background Information	PCI-Audit	3
Legal Authority Program Element Changed Code	Program Modification	PCI-Audit	1
Control Mechanism Implementation Program Element Changed Code	Program Modification	PCI-Audit	1
Local Limits Program Element Changed Code	Program Modification	PCI-Audit	1
Inspection and Monitoring Program Element Changed Code	Program Modification	PCI-Audit	1
Enforcement Program Element Changed Code	Program Modification	PCI-Audit	1
Resources Program Element Changed Code	Program Modification	PCI-Audit	1
Was Each SIU Inspected in Accordance with NPDES Req'd Frequencies	IU Inspection & Monitoring	PCI-Audit	1
Was Each SIU Sampled in Accordance with NPDES Req'd Frequencies	IU Inspection & Monitoring	PCI-Audit	1
Percentage of SIUs Not Sampled in the Past Year	IU Inspection & Monitoring	PCI-Audit	3
Percentage of SIUs Not Inspected in the Past Year	IU Inspection & Monitoring	PCI-Audit	3
Self-Monitoring Sampling Freq. for Sign. Noncat. IUs (Lower Range)	IU Inspection & Monitoring	PCI-Audit	1
Self-Monitoring Sampling Freq. for Sign. Noncat. IUs (Upper Range)	IU Inspection & Monitoring	PCI-Audit	1
Percentage of SIUs Not Covered by a Current Control Mechanism	Control Mechanism	PCI-Audit	3
Percent of All IUs Req'd to Install Technologies and Have Done So	Enforcement Procedures	PCI-Audit	3
Percent of SIUs in Noncomp. with Applicable Pretreatment Standards	Enforcement Procedures	PCI-Audit	3
Percent of SIUs in Noncomp. with Self-Monitoring Requirements	Enforcement Procedures	PCI-Audit	3
Percent of SIUs in Noncomp. with Reporting Requirements	Enforcement Procedures	PCI-Audit	3
Percent of SIUs Subject to Any Enforcement Action in Past Year	Enforcement Procedures	PCI-Audit	3
Does Control Authority Have an Enforcement Response Guide	Enforcement Procedures	PCI-Audit	1
Has POTW Published List of Significant Violators in Newspaper	Enforcement Procedures	PCI-Audit	1
Does POTW Maintain Individual Records on SIUs for Compliance Data	Compliance Tracking	PCI-Audit	1
Type of Data Management System Code (Manual, Computer, or None)	Compliance Tracking	PCI-Audit	1
IU File Contents Adequacy Code	IU File Evaluation	PCI-Audit	2
IU File Control Mechanism Evaluation Code	IU File Evaluation	PCI-Audit	2
IU File Compliance Evaluation Code	IU File Evaluation	PCI-Audit	2
IU File Self-Monitoring Evaluation Code	IU File Evaluation	PCI-Audit	2
IU File Control Authority Enforcement Initiatives Adequacy Code	IU File Evaluation	PCI-Audit	2

* Data Element Already Stored in PCS

EXHIBIT II-8

Data Element Name	Category of Data	Data Type	Length
Control Authority Monitoring and Inspection Adequacy Code	Summary Evaluation	PCI-Audit	2
IU Self-Monitoring Adaquacy Code	Summary Evaluation	PCI-Audit	2
Control Mechanism Adaquacy Code	Summary Evaluation	PCI-Audit	2
Control Authority Enforcement Procedure Adaquacy Code	Summary Evaluation	PCI-Audit	2
Do Enforcement Actions Usually Result in Compliance Within 3 Mos.	Summary Evaluation	PCI-Audit	1
Is There a Good Understanding of the Compliance Status of All SIUs	Summary Evaluation	PCI-Audit	1
Do PCI Findings Support Statements Made in Previous Annual Report	Summary Evaluation	PCI-Audit	1

STEP 1 DATA ELEMENTS (PROGRAM AUDIT DATA)

Data Element Name	Category of Data	Data Type	Length
* NPDES Number	General Information	Common Key	9
* Inspection Date (Audit Date)	General Information	Common Key	6
* Facility Name	General Information	Permit-Facility	30
* Facility Location Street Line 1	General Information	Permit-Facility	30
* Facility Location Street Line 2	General Information	Permit-Facility	30
* Facility Location City	General Information	Permit-Facility	23
* Facility Location State	General Information	Permit-Facility	2
* Facility Location Zip Code	General Information	Permit-Facility	9
* Cognizant Official	General Information	Permit-Facility	30
* Cognizant Official Telephone	General Information	Permit-Facility	10
POTW Pretreatment Program Approval Date	Background Information	PCI-Audit	6
POTW Design Flow (mgd)	Background Information	PCI-Audit	5
POTW Actual Average Daily Flow (mgd)	Background Information	PCI-Audit	5
Estimated Industrial Flow (mgd)	Background Information	PCI-Audit	5
POTW Removal Credit Status Code	Background Information	PCI-Audit	2
POTW Removal Credit Application Date	Background Information	PCI-Audit	6
POTW Removal Credit Approval Date	Background Information	PCI-Audit	6
POTW NPDES Permit Requirements Code	Background Information	PCI-Audit	2
Onsite Review Dates	Audit Information	PCI-Audit	6
Number of IU Visits Made in Conjunction with the Audit	Audit Information	PCI-Audit	2
Audit Participants (code indicating participants' positions)	Audit Information	PCI-Audit	2
Person Completing Audit	Audit Information	PCI-Audit	30
Person Verifying Audit	Audit Information	PCI-Audit	30
Audit Verification Date	Audit Information	PCI-Audit	6
Person Entering Audit	Audit Information	PCI-Audit	30
Data Entry Date	Audit Information	PCI-Audit	6
Number of Jurisdictions that Discharge Waste to POTW	Legal Authority	PCI-Audit	2
Adequacy of Agreements with Outside Jurisdictions Code	Legal Authority	PCI-Audit	2
Number of Agreements Not Secured with Outside Jurisdictions	Legal Authority	PCI-Audit	2
POTW Legal Authority Deficiencies Code	Legal Authority	PCI-Audit	2
Maximum Civil Penalty Provided by Local Law	Legal Authority	PCI-Audit	10
Number of Permits, Agreements, Etc. That Need to be Issued	Control Mechanism	PCI-Audit	5
Number of Current Permits That Have Been Issued	Control Mechanism	PCI-Audit	5
Number of IU Contracts Used As Control Mechanisms	Control Mechanism	PCI-Audit	5
Deficiencies Found in POTW's Control Mechanisms Codes	Control Mechanism	PCI-Audit	2
Number of Categorical IUs that Discharge to POTW	IU Characterization	PCI-Audit	5
Number of Significant Noncategorical IUs that Discharge to POTW	IU Characterization	PCI-Audit	5
Number of Other Regulated IUs that Discharge to POTW	IU Characterization	PCI-Audit	5
POTW Local Limits Descriptive Code	Local Limits	PCI-Audit	2
Historical Problems with Nondomestic Discharges Code	Local Limits	PCI-Audit	2
Types of Wastes Accepted that are Hauled by Truck or Rail Code	Local Limits	PCI-Audit	2
Knowing Acceptance of Hazardous Wastes by Truck/Rail/Ded. Pipe	Local Limits	PCI-Audit	1

* Data Element Already Stored in PCS

EXHIBIT II-9

Data Element Name	Category of Data	Data Type	Length
Deficiencies Found in Applying Cat. Pretreatment Standards Code	Cat. Pretreat. Standards	PCI-Audit	2
Frequency of POTW Influent Toxicant Sampling Code	Effectiveness of Standards	PCI-Audit	2
Frequency of POTW Effluent Toxicant Sampling Code	Effectiveness of Standards	PCI-Audit	2
Frequency of POTW Sludge Toxicant Sampling Code	Effectiveness of Standards	PCI-Audit	2
Has Pretreatment Program Resulted in Noticeable Benefits Indicator	Effectiveness of Standards	PCI-Audit	1
Deficiencies Found in POTW Inspections of Significant IUs Code	Compliance Monitoring	PCI-Audit	2
Deficiencies Found in POTW Sampling of Significant IUs Code	Compliance Monitoring	PCI-Audit	2
Generally Have Cat. IUs Submitted All Reports Required by 403.12	Compliance Monitoring	PCI-Audit	1
Number of IUs in Noncompliance with Categorical Standards	Enforcement	PCI-Audit	5
Number of IUs Required to Meet Categorical Standards	Enforcement	PCI-Audit	5
Number of IUs in Noncompliance with Local Limits	Enforcement	PCI-Audit	5
Number of IUs Required to Meet Local Limits	Enforcement	PCI-Audit	5
Number of IUs in Noncompliance with Self-Monitoring Requirements	Enforcement	PCI-Audit	5
Number of IUs with Self-Monitoring Requirements	Enforcement	PCI-Audit	5
Number of IUs in Noncompliance with Reporting Requirements	Enforcement	PCI-Audit	5
Number of IUs with Reporting Requirements	Enforcement	PCI-Audit	5
Adequacy of POTW Enforcement Initiatives Code	Enforcement	PCI-Audit	2
Number of IUs Identified as Significant Violators	Data Management	PCI-Audit	5
Adequacy of POTW's Data Management Activities Code	Data Management	PCI-Audit	2
Type of Data Management System Code (Manual or Computerized)	Data Management	PCI-Audit	1
Has POTW Published List of Significant Violators in Newspaper	Public Participation	PCI-Audit	1
Adequacy of Personnel Resources	Program Resources	PCI-Audit	2
Adequacy of Equipment Resources	Program Resources	PCI-Audit	2
Adequacy of Funding Resources	Program Resources	PCI-Audit	2
Adequacy of Analytical Support Resources	Program Resources	PCI-Audit	2
Number of FTEs devoted to the POTW's Pretreatment Program	Program Resources	PCI-Audit	3
Approximate Yearly Budget For POTW Pretreatment Program	Program Resources	PCI-Audit	9

STEP 1 DATA ELEMENTS (PPS DATA)

	Data Element Name	Category of Data	Data Type	Length
*	NPDES Number	General Information	Common Key	9
*	Facility Name	General Information	Permit-Facility	30
*	Facility Location Street Line 1	General Information	Permit-Facility	30
*	Facility Location Street Line 2	General Information	Permit-Facility	30
*	Facility Location City	General Information	Permit-Facility	23
*	Facility Location State	General Information	Permit-Facility	2
*	Facility Location Zip Code	General Information	Permit-Facility	9
*	Cognizant Official	General Information	Permit-Facility	30
*	Cognizant Official Telephone	General Information	Permit-Facility	10
	PPS Reporting Period Start Date	General Information	PPS-Data	6
	PPS Reporting Period End Date	General Information	PPS-Data	6
	Total Number of Categorical IUs	General Information	PPS-Data	5
	Total Significant Noncategorical IUs	General Information	PPS-Data	5
	Number of Categorical IUs Submitting BMRs	SIU Compliance	PPS-Data	5
	Number of Categorical IUs Required to Submit BMRs	SIU Compliance	PPS-Data	5
	Number of Categorical IUs Submitting 90-Day Compliance Reports	SIU Compliance	PPS-Data	5
	Number of Cat. IUs Required to Submit 90-Day Compliance Reports	SIU Compliance	PPS-Data	5
	Number of Categorical IUs Submitting Semi-Annual Reports	SIU Compliance	PPS-Data	5
	Number of Categorical IUs Required to Submit Semi-Annual Reports	SIU Compliance	PPS-Data	5
	Number of Noncategorical SIUs Submitting Semi-Annual Reports	SIU Compliance	PPS-Data	5
	Number of Noncat. SIUs Required to Submit Semi-Annual Reports	SIU Compliance	PPS-Data	5
	Number of Categorical IUs Meeting Compliance Schedules	SIU Compliance	PPS-Data	5
	Number of Categorical IUs Required to Meet Compliance Schedules	SIU Compliance	PPS-Data	5
	Number of Noncategorical SIUs Meeting Compliance Schedules	SIU Compliance	PPS-Data	5
	Number of Noncat. SIUs Required to Meet Compliance Schedules	SIU Compliance	PPS-Data	5
	Number of Categorical IUs in Significant Noncompliance	SIU Compliance	PPS-Data	5
	Number of Noncategorical SIUs in Significant Noncompliance	SIU Compliance	PPS-Data	5
	Rate of Significant Noncompliance for all SIUs	SIU Compliance	PPS-Data	3
	Number of Non-Sampling Inspections Conducted on Cat. IUs	Compliance Monitoring	PPS-Data	5
	Number of Non-Sampling Inspections Conducted on Noncat. SIUs	Compliance Monitoring	PPS-Data	5
	Number of Sampling Visits Conducted on Categorical IUs	Compliance Monitoring	PPS-Data	5
	Number of Sampling Visits Conducted on Noncategorical SIUs	Compliance Monitoring	PPS-Data	5
	Number of Categorical Facilities Inspected (Non-Sampling)	Compliance Monitoring	PPS-Data	5
	Number of Noncategorical Facilities Inspected (Non-Sampling)	Compliance Monitoring	PPS-Data	5
	Number of Categorical Facilities Sampled	Compliance Monitoring	PPS-Data	5
	Number of Noncategorical Facilities Sampled	Compliance Monitoring	PPS-Data	5

* Data Element Already Stored in PCS

EXHIBIT II-10

Data Element Name	Category of Data	Data Type	Length
Number of Compliance Schedules Issued to Categorical IUs	Enforcement Actions	PPS-Data	5
Number of Compliance Schedules Issued to Noncategorical SIUs	Enforcement Actions	PPS-Data	5
Number of Notices of Violations Issued to Categorical IUs	Enforcement Actions	PPS-Data	5
Number of Notices of Violations Issued to Noncategorical SIUs	Enforcement Actions	PPS-Data	5
Number of Administrative Orders Issued to Categorical IUs	Enforcement Actions	PPS-Data	5
Number of Administrative Orders Issued to Noncategorical SIUs	Enforcement Actions	PPS-Data	5
Number of Civil Suits Filed Against Categorical IUs	Enforcement Actions	PPS-Data	5
Number of Civil Suits Filed Against Noncategorical SIUs	Enforcement Actions	PPS-Data	5
Number of Criminal Suits Filed Against Categorical IUs	Enforcement Actions	PPS-Data	5
Number of Criminal Suits Filed Against Noncategorical SIUs	Enforcement Actions	PPS-Data	5
Number of Categorical IU Significant Violators Published	Enforcement Actions	PPS-Data	5
Number of Noncategorical SIU Significant Violators Published	Enforcement Actions	PPS-Data	5
Amount of Penalties Collected from Categorical IUs	Enforcement Actions	PPS-Data	10
Amount of Penalties Assessed Against Categorical IUs	Enforcement Actions	PPS-Data	10
Amount of Penalties Collected from Noncategorical SIUs	Enforcement Actions	PPS-Data	10
Amount of Penalties Assessed Against Noncategorical SIUs	Enforcement Actions	PPS-Data	10
Number of Other Enforcement Actions Taken Against Cat. IUs	Enforcement Actions	PPS-Data	5
Number of Other Enforcement Actions Taken Against Noncat. SIUs	Enforcement Actions	PPS-Data	5

III. STEP 2: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS (WITH LIMITED INDUSTRIAL USER DATA)

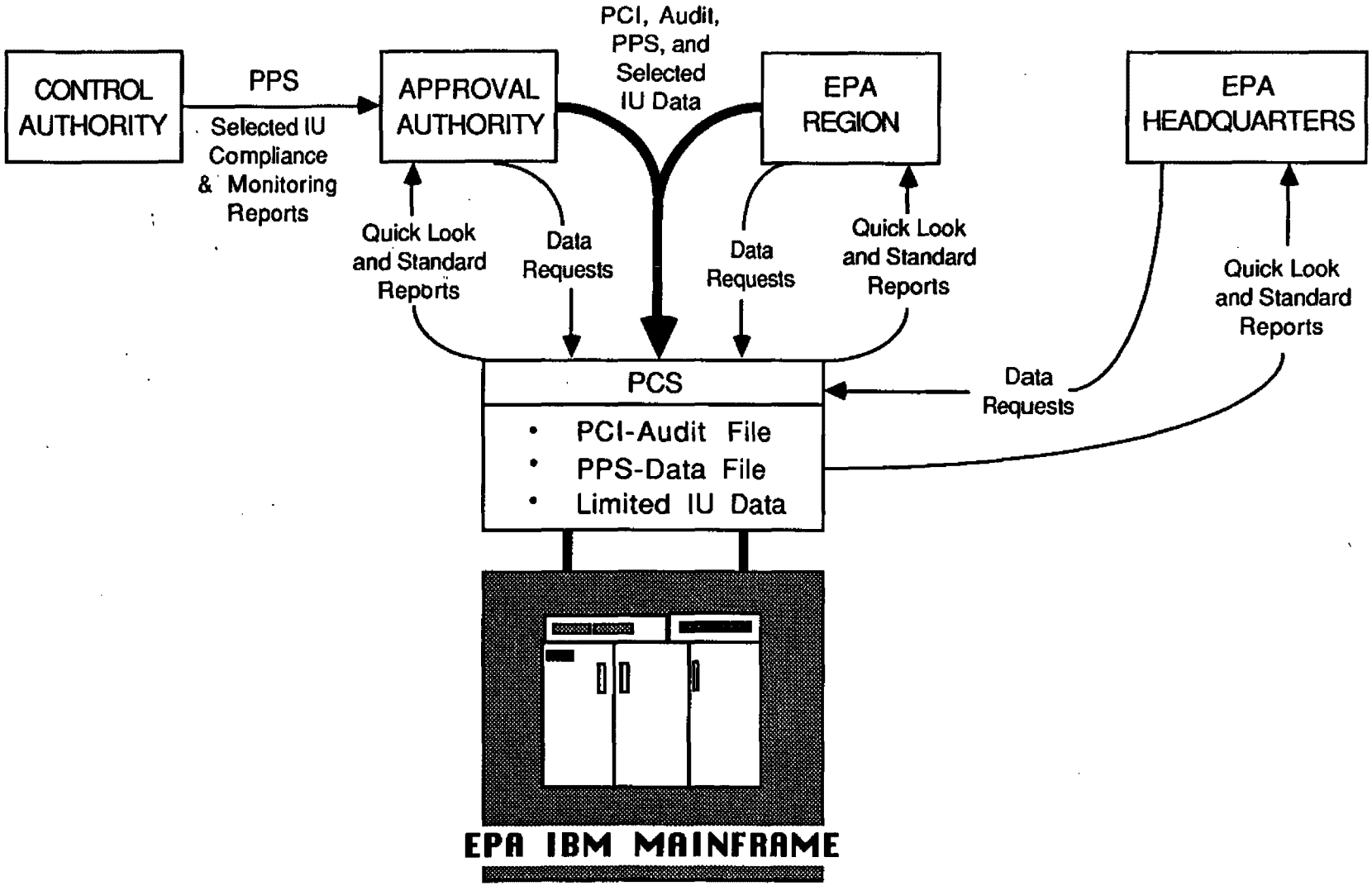
A. Step 2 Overall System Description

After Step 1 is fully operational, EPA will develop the Step 2 Pretreatment Permits and Enforcement Tracking System (PPETS). During this step, EPA will significantly enhance the PPETS system to track certain Industrial User pretreatment data for a limited number of IUs. The enhancement should serve as a valuable aid to EPA Regions and delegated State Approval Authorities for enforcing pretreatment regulations. For those Industrial Users tracked, the system will store data on:

- Industrial User Facilities
- Compliance Schedules
- Compliance Schedule Violations
- Discharge Limits
- Sampling Measurements
- Discharge Violations
- Enforcement Actions
- Permitting Events
- IU Inspections.

In order to support these data, the system will rely on a wide variety of input documents about Industrial User pretreatment compliance. Inputs will include: Industrial Waste Surveys and updates, Sampling Reports, IU Inspections, Baseline Monitoring Reports, Periodic Compliance Reports, Notices of Slug Loadings, etc. Most of these inputs do not currently have standard formats. Some of these IU input documents will have to be standardized over the next several years in order to support a consistent tracking system.

As with Step 1, Step 2 will be designed and implemented as an enhancement to the the current Permit Compliance System (PCS), as illustrated in Exhibit III-1. PCS data files and software will be adapted to track Industrial User



STEP 2: SYSTEM FOR APPROVAL AUTHORITIES AND HIGHER LEVELS (WITH LIMITED INDUSTRIAL USER DATA)

Exhibit III-1

data in formats similar to the current NPDES data. No new logical data files will be added to PCS in Step 2. Only those pretreatment data types which correspond to PCS data will be tracked. Fortunately, there are many similarities between tracking POTW discharge compliance and IU pretreatment compliance. Some data, however, such as production based limits, may be difficult to track in Step 2.

Since the total number of Industrial Users is very large, tracking all of them could seriosly impair PCS operations and performance. Therefore, only a limited number of Industrial Users should be tracked. Only those Categorical IUs where the State or Region acts as the Control Authority should be entered. It is estimated that approximately 1,500 Categorical Industrial Users would be tracked. The State and Regional Approval Authorities will determine the amount of data to be tracked for each IU.

Step 2 will provide standard and user-designed (Quick Look) reports to help EPA Headquarters, Regions, and participating State Approval Authorities oversee the permits and enforcement actions of POTWs. It will also allow Approval Authorities to directly monitor the compliance of those Industrial Users for which it acts as Control Authority. PPETS users will be able to request reports with statistics on a National, Regional, State, POTW, and IU level.

Step 2 will be developed after Step 1 has been fully implemented and integrated into EPA operations. Development will occur when the National Pretreatment Program is more fully established and when an automated system for IU pretreatment data will benefit EPA Regions and delegated States.

B. Step 2 Input Data

The Step 2 PPETS system will rely on several types of input documents to provide Industrial User pretreatment data. These documents include:

- Industrial Waste Surveys and updates
- Control Authority Sampling Reports
- Control Authority Inspections of Industrial Users
- Baseline Monitoring Reports (BMRs) and Final Compliance Reports
- IU Periodic Compliance Reports
- Notices of Slug Loading.

The Industrial Waste Survey (IWS) is developed by Control Authorities to identify Industrial Users and characterize the IU wastewater discharges in their respective jurisdictions. The IWS must be maintained and updated regularly. It is important for determination of the nature and quantity of pollutants entering the POTW, identification of changes in the Industrial User population, issuance and modification of effective control mechanisms, and prioritization of Industrial Users to enable Control Authorities to more efficiently allocate resources and schedule pretreatment activities.

Sampling analyses and reports are conducted by Control Authorities on Industrial User wastestreams. The Control Authority takes wastewater samples and analyzes them for various effluent pollutants. These activities provide data which can be used to directly determine compliance with applicable pretreatment standards and to confirm the representativeness of the sampling analyses reported in industrial self-monitoring reports.

Control Authorities also conduct inspections of Industrial User facilities. These inspections generally examine information such as sampling locations, pretreatment equipment, spill control practices, water flow schematics, process change, etc. Industrial inspections, if performed properly, should form the information base for any subsequent enforcement action against Industrial Users.

In the months following the establishment of categorical pretreatment standards, affected Categorical Industrial Users must submit compliance reports to the responsible Control Authority. A Baseline Monitoring Report (BMR) must be submitted within 180 days after the effective date of the standard; this report must identify the IU, describe its operations and discharges, and indicate whether the applicable standards are being met. Within 90 days following the date for final compliance, the affected IU must submit a Final Compliance Report indicating the nature and concentration of all limited pollutants in the regulated discharges and the maximum daily flow for these discharges; the report must also indicate whether the pretreatment standards are being met consistently.

Periodic Compliance Reports describe the regulated waste discharges of Categorical Industrial Users. They are submitted by the IU to the responsible Control Authority at least twice a year. The report must indicate the nature and concentration of pollutants in effluents which are limited by categorical pretreatment standards. In addition, the report must include a record of measured or estimated average daily flows for the reporting period.

Notices of Slug Loading are submitted by Industrial Users when any pollutant is released in a discharge at a flow rate or concentration which will cause interference with the operation of the treatment works. The IU must immediately notify the Control Authority of any such occurrence.

EPA has issued suggested formats only for sampling reports performed by the Control Authority or Industrial User. Formats have not been issued for the other reports. For this data to support a consistent tracking system, formats and data requirements will have to be standardized.

C. Step 2 Output Reports

Relevant and informative output reports will help encourage EPA Regions and delegated States to take full advantage of the Step 2 PPETS capabilities. Beneficial outputs will probably result in more Industrial User data being entered and greater utilization of the PPETS system.

As in Step 1, two current PCS reports, the Quick Look Report and the Milestone Report, will be especially useful to PPETS. The software for these reports will have to be modified to accept the Step 2 Industrial User data. In addition, 9 other IU reports will be developed from modifications to current PCS software. They are:

- IU Facility Report
- IU Compliance Forecast Report
- IU Compliance Forecast with Violations Report
- IU Limitations Summary Report
- IU Limitations Summary with Measurement Violations Report
- Industrial Monitoring Administrative Report
- Industrial Monitoring Administrative Report by Parameter
- IU Monitoring Report Package
- IU Mailing Labels.

The PPETS Industrial User data can also support seven new standard reports, including:

- Categorical IU Summary Noncompliance Report
- Categorical IU Summary Noncompliance Trend Report
- Categorical IU Effluent Parameter Noncompliance Report
- Categorical IU Effluent Parameter Noncompliance Trend Report
- PPS Generation Report
- Pretreatment Permit Status Summary
- NPDES Discharge Violation Pretreatment Investigative Report.

The above listings are only suggested output reports. Other reports and applications of PPETS data can be developed when needs arise. The following sections describe each of the suggested reports in greater detail.

Modified PCS Reports

1. IU Facility Report

The IU Facility Report provides a comprehensive look at the data for each permitted Industrial User selected. It consists of one section of general facility information and seven additional sections each of which may or may not be selected to print. The seven sections are: compliance schedule and compliance violation data, enforcement action data, IU inspections data, parameter limits data, measurement violation data, pipe schedule data, and permit event data. The report is analogous to the current PCS Facility Report.

2. IU Compliance Forecast Report

The IU Compliance Forecast Report displays information for permitted Industrial Users that have compliance schedule events due within a specified time. This report lists the information from the Compliance Schedule data, along with some background information from the Permit Facility data. The report is analogous to the current PCS Compliance Forecast Report.

3. IU Compliance Forecast with Violations Report

The IU Compliance Forecast with Violations Report displays information for permitted Industrial Users that have compliance schedule violation events within a specified time frame. This report lists some information from the Permit Facility data, the information from the Compliance Schedule data, and

the associated information from the Compliance Schedule Violation data. The report is analogous to the current PCS Compliance Forecast with Violations Report.

4. IU Limitations Summary Report

The IU Limitations Summary Report displays information on Industrial User discharge schedules and their related parameter limits. The report lists some identifying information from the Permit Facility data, the Pipe Schedule information and the associated Parameter Limits. This report is analogous to the current PCS Limitations Summary Report.

5. IU Limitation Summary with Measurement Violations Report

The IU Limitation Summary with Measurement Violations Report displays information on discharge schedules and their related parameter limits, measurement violations, and enforcement actions. The report lists information from the Permit Facility data, Pipe Schedule and associated Parameter Limits data, Measurement Violation data, and Enforcement Action data. This report is analogous to current PCS Limitation Summary with Measurement Violations Report.

6. Industrial Monitoring Administrative Report

The Industrial Monitoring Administrative Report identifies data reported on IU monitoring forms which is due, overdue, or violative in any way. The report lists the required sampling data due by outfall, limit type, and monitoring period end date; gives the number of parameters on each monitoring report; and summarizes the number of violations recorded for each parameter. This report is analogous to the current PCS DMR Administrative Report.

7. Industrial Monitoring Administrative Report by Parameter

The Industrial Monitoring Administrative Report by Parameter identifies data reported on IU monitoring forms which is due, overdue, or violative in any way. The report lists each parameter for each monitoring report and describes the worst violation recorded for each parameter. This report is analogous to the current PCS DMR Administrative Report by Parameter.

8. IU Monitoring Report Package

The IU Monitoring Report Package prints monitoring report forms that can be mailed to Industrial Users for completion. The package can also produce gummed mailing labels, an error report for IUs not having Monitoring Reports printed, and an optional printed list of the IUs for which Monitoring reports were produced. This report package is analogous to the current PCS DMR Package.

9. IU Mailing Labels

The system will have the capability of printing mailing labels for any of the Industrial User addresses in PPETS. Labels can be printed with or without the cognizant official's name. The IU Mailing Labels capability is analogous to current PCS Mailing Label capabilities.

PPETS New Step 2 Standard Reports

10. Categorical IU Summary Noncompliance Report

The Categorical IU Summary Compliance Report will provide summary statistics about the number of Categorical Industrial Users which are in noncompliance. The report will list out the number of noncompliant IUs by CFR code and type of noncompliance.

11. Categorical IU Summary Noncompliance Trend Report

The Categorical IU Summary Noncompliance Trend Report will provide summary statistics about noncompliance trends for a class of Categorical Industrial Users over a period of time (perhaps 5 years). PPETS users will specify the CFR codes for the IUs they need to analyze. From these Industrial Users, the report will list out the number in noncompliance along with the type of noncompliance that occurred each year. Exhibit III-2 contains a sample format of this report.

12. Categorical IU Effluent Parameter Noncompliance Report

The Categorical IU Effluent Parameter Noncompliance Report will provide summary statistics about noncompliance with specific discharge parameters. The report will list the number of Categorical Industrial Users grouped by CFR code which are in noncompliance with specific effluent parameters. PPETS users will specify the CFR codes and effluents they need to analyze. Exhibit III-3 contains a sample format of this report.

13. Categorical IU Effluent Parameter Noncompliance Trend Report

The Categorical IU Effluent Parameter Noncompliance Trend Report will provide summary noncompliance statistics for specific effluents over a period of time (perhaps 5 years). The report will list the number of Categorical Industrial Users which are in noncompliance with specific effluent parameters for each year.

14. PPS Generation Report

The PPS Generation Report will produce a Pretreatment Performance Summary report tabulated from those Industrial Users being tracked by PPETS.

CATEGORICAL IU SUMMARY NONCOMPLIANCE TREND REPORT

State: XXXXXXX
CFR Code for IUs: CCCCCC

Date: MM/DD/YY

Year	Number of IUs	Number of Industrial User Violations for: Discharge Limits	Reporting Requirements	Compliance Schedules
Year 1:	50	10	15	12
Year 2:	52	12	12	11
Year 3:	55	14	10	9
Year 4:	56	15	8	7
Year 5:	57	15	7	6
5 Yr Avg	54	13	10	9

EXHIBIT III-2

CATEGORICAL IU EFFLUENT PARAMETER NONCOMPLIANCE REPORT

Control Authority: CCCCCC

Date From: MM/DD/YY
To: MM/DD/YY

CFR Code	Number of IUs	Number of Industrial Users with Discharge Violations for: COD	TSS	TS	pH	Oil/Grease	Ammonia	Cyanide	Phenol	Sulfide	Mercury	Arsenic	Lead	Zinc
AAAAA	20	5	5	3	7	16	17	3	5	4	2	0	1	0
BBBBB	50	7	3	8	16	30	9	6	2	0	0	1	0	0
CCCCC	8	0	2	1	1	0	0	0	1	0	0	0	0	1
DDDDD	75	10	3	2	14	5	0	3	10	3	4	2	3	7
EEEEE	60	9	6	7	5	17	0	7	8	4	5	4	6	0
Totals:	213	31	19	21	43	68	26	19	26	11	11	7	10	8

EXHIBIT III-3

15. Pretreatment Permit Status Summary

The Pretreatment Permit Status Summary will list the current status of Industrial User pretreatment permits for a specified jurisdiction. The report will include the number and types of control mechanisms issued and the number of IUs operating with expired or without any control mechanisms.

16. NPDES Discharge Violation Pretreatment Investigative Report

The NPDES Discharge Violation Pretreatment Investigative Report will analyze specific NPDES permit discharge violations. Users will identify a specific POTW discharge violation that they want to investigate. PPETS will check whether there were similar Industrial User pretreatment discharge violations occurring around the same time in that jurisdiction. The report will print out a listing of these relevant pretreatment violations to help the user determine whether there may have been a cause-and-effect relationship.

D. Step 2 File Structure

Step 2 should not require any new data files to be added to PCS. Instead, existing PCS may need to be modified to track Industrial User data. PCS files that may require modification include:

- Permit-Facility Data File
- Compliance Schedule Data File
- Compliance Schedule Violation Data File
- Enforcement Action Data File
- Pipe Schedule Data File
- Parameter Limits Data File
- Measurement Violation Data File
- Inspection Data File
- Permit Event Data File.

Exhibit III-4 illustrates the PCS file structure modifications for Step 2.

There are many similarities between current NPDES data and Industrial User pretreatment data. Many of the data elements can be used for pretreatment tracking with no modifications. Some other elements may require broader definitions and some descriptive codes may require additional values. Some PCS data elements will not be used by PPETS.

Step 2 will also require some new data elements and modifications to some current PCS data elements. The most important change will be developing an Industrial User number to serve as a common key. In the final design, each IU tracked may have to be assigned a unique identification number. This number could be stored in the NPDES Number field of the IU data records. A new 'Receiving POTW' field may have to be created to indicate the facility where the Industrial User discharges.

Although EPA Regions and participating State Approval Authorities will only track those Industrial Users for which they act as Control Authority, they will decide for themselves the amount of data that should be entered. It

STEP 2 FILE STRUCTURE

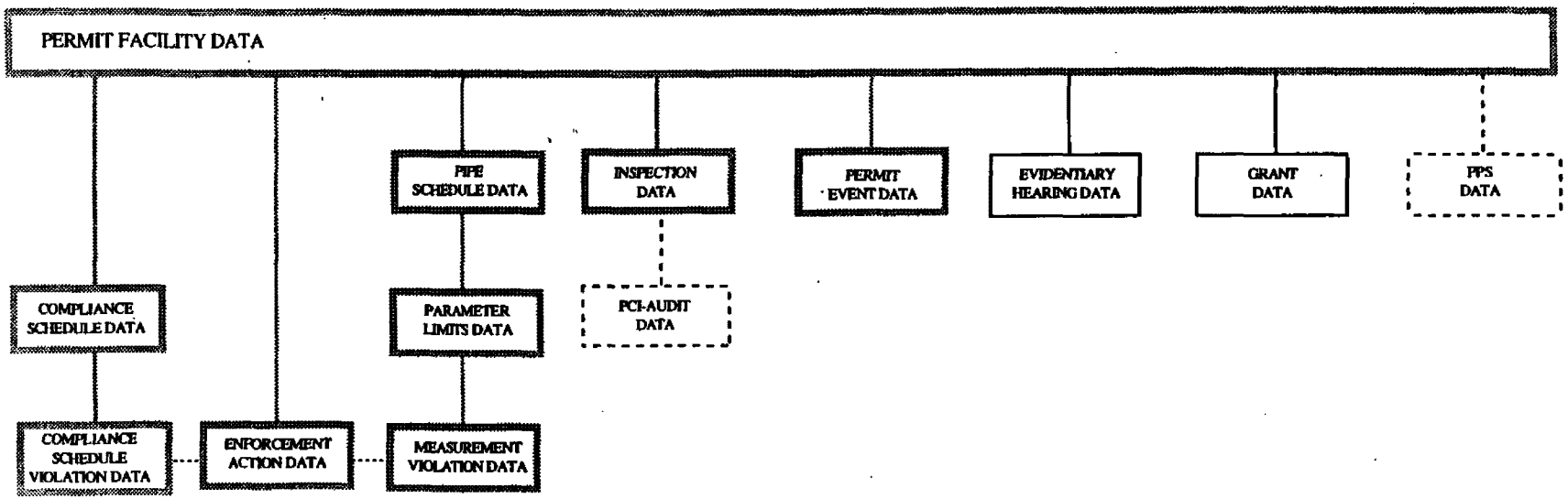


Exhibit III-4

is estimated that PPETS will track pretreatment data for up to 1500 Categorical Industrial Users.

E. Step 2 Software Functions

Step 2 will require some modification to PCS software routines. Several PCS programs will have to be modified including:

- PCS Edit Program
- PCS-ADE Program
- PCS Update Program
- PCS Retrieval Reports
- PCS Sequential File Extract
- PCS Archival Procedures.

Since Step 2 will require modifications to many PCS data files, there will have to be corresponding changes to the PCS-ADE, Edit, and Update programs. Industrial User data is in many ways conceptually different from NPDES discharge data; some of the data fields will be similar, but some will not be. Therefore, it is suggested that the PCS-ADE and Edit programs have different software modules for the entry and update of NPDES and pretreatment data. Separate software modules could provide different prompts and responses for different data, and thus make the system more user-friendly.

Step 2 will require modification to current PCS retrieval reports. As with Step 1, the Quick Look and Milestone reports will be especially useful for analyzing PPETS data. In addition, the other current PCS standard reports will have to be modified to support Industrial User data. New software will be required to implement the suggested Step 2 standard reports previously described. The PCS retrieval reports will be able to combine data for both POTW facilities and Industrial Users.

The PCS Sequential File Extract will have to be modified for Industrial User data. This will allow Regions and States the option of downloading data to local systems for specialized reporting.

The PCS archival procedures may also have to be revised for Step 2. The Industrial User data may be given a different archival schedule than the current PCS NPDES data.

All of the above software modifications will have to include transaction auditability data to record system usage. In the event of problems, this data could trace system usage to help resolve difficulties. As with the current PCS system, the PPETS transaction data will have to be obtained from the PCS User Support Staff.

F. Step 2 Data Element Listing

The Step 2 data elements will be mostly current PCS data elements. There are many similarities between Industrial User pretreatment data and PCS NPDES data.

Exhibit III-5 lists the data elements that will be useful for tracking Industrial User data. Many of these elements are PCS elements, although some elements will require broader definitions and some codes will require additional values. There are also many PCS elements that are not relevant for pretreatment tracking; these are not included on the list.

The most important change to PCS files will be an Industrial User Number to serve as a common key. Each IU tracked will have to be assigned a unique number which can be stored in the NPDES Number data field. In addition, a new 'Receiving POTW' field may have to be added to the Permit-Facility data file to indicate where the Industrial User discharges.

Many PCS data elements can easily be adapted for pretreatment tracking. For example, there are a set of data elements that track the submission of DMRs. These elements can be used to track Industrial User monitoring reports; they are listed in the exhibit under their PCS name. Also, some new elements may need to be added to the PCS files, such as CFR Code.

There are many PCS data elements which may be applicable to pretreatment in some cases, but will probably not be used for most Industrial Users. Some examples include seasonal limits and report designation numbers. The data element list includes many elements that will probably be used only occassionally.

STEP 2 DATA ELEMENTS

Data Element Name	Data Type
* NPDES Number / Industrial User Number	Common Key
* Compliance Schedule Comments	Compliance-Schedule
* Compliance Schedule Number	Compliance-Schedule
* Compliance Schedule File Number	Compliance-Schedule
* Data Source Code	Compliance-Schedule
* Compliance Schedule Actual Date	Compliance-Schedule
* Compliance Schedule Report Received Date	Compliance-Schedule
* Compliance Schedule Date	Compliance-Schedule
* Compliance Schedule Event Code	Compliance-Schedule
* Compliance Schedule User Data Element 1	Compliance-Schedule
* Compliance Schedule User Data Element 2	Compliance-Schedule
* Compliance Schedule Violation Date	Compliance-Violation
* Compliance Schedule Violation Event Code	Compliance-Violation
* Compliance Schedule Violation Code	Compliance-Violation
* Compliance Schedule Violation User Data Element 1	Compliance-Violation
* Compliance Schedule Violation User Data Element 2	Compliance-Violation
* Compliance Schedule Violation Comments	Compliance-Violation
* Compliance Violation Compliance Schedule Number	Compliance-Violation
* Violation Date - CV or MV	Compliance-Violation Measurement-Violation
* Compliance Schedule Violation Data Source Code	Compliance-Violation
* Compliance Schedule Violation-Date Resolved	Compliance-Violation
* Compliance Schedule Violation-Date Scheduled	Compliance-Violation
* Enforcement Action Response Achieved Date	Enforcement-Action
* Enforcement Action Comment	Enforcement-Action
* Enforcement Action NPDES/IU Number CV Key	Enforcement-Action
* Enforcement Action Compliance Schedule Violation Code	Enforcement-Action
* Enforcement Action Compliance Schedule Violation Date	Enforcement-Action
* Enforcement Action NPDES/IU Number MV Key	Enforcement-Action
* Enforcement Action Modification Number	Enforcement-Action
* Enforcement Action Code	Enforcement-Action
* Enforcement Action Date	Enforcement-Action
* Enforcement Action Status Code	Enforcement-Action
* Enforcement Action Person Initiating	Enforcement-Action
* Enforcement Action Response Due Date	Enforcement-Action
* Enforcement Action File Number	Enforcement-Action
* Enforcement Action Status Date	Enforcement-Action
* Enforcement Action Season Number	Enforcement-Action
* Enforcement Action Data Source Code	Enforcement-Action
* Enforcement Action Violation Recognition Date	Enforcement-Action
* Enforcement Action Discharge Number	Enforcement-Action

* Data Element Already Stored in PCS

EXHIBIT III-5

Data Element Name	Data Type
* Enforcement Action Event Code	Enforcement-Action
* Enforcement Action Limit Type - Alphabetic	Enforcement-Action
* Enforcement Action Limit Type - Numeric	Enforcement-Action
* Enforcement Action Monitoring Date	Enforcement-Action
* Enforcement Action Monitoring Location	Enforcement-Action
* Enforcement Action Parameter Code	Enforcement-Action
* Enforcement Action Compliance Schedule Number	Enforcement-Action
* Enforcement Action Violation Type	Enforcement-Action
* Inspection Date	Inspection
* Inspected Facility Type	Inspection
* Inspection Comments	Inspection
* Inspector Code	Inspection
* QA Data-Based Inspection	Inspection
* Inspection User Data Element 1	Inspection
* Inspection User Data Element 2	Inspection
* Inspection Type	Inspection
* Measurement/Violation Concentration Average	Measurement-Violation
* Measurement/Violation Concentration Minimum	Measurement-Violation
* Measurement/Violation Concentration Maximum	Measurement-Violation
* Measurement/Violation Quantity Average	Measurement-Violation
* Measurement/Violation Quantity Maximum	Measurement-Violation
* Measurement/Violation Monitoring Period End Date	Measurement-Violation
* Violation Code-Measurement	Measurement-Violation
* No Discharge Indicator	Measurement-Violation
* Reported Concentration Unit	Measurement-Violation
* Reported Number of Excursions	Measurement-Violation
* Reported Frequency of Analysis	Measurement-Violation
* Reported Sample Type	Measurement-Violation
* Reported Quantity Unit	Measurement-Violation
* Measurement Violation Percent - Concentration Average	Measurement-Violation
* Measurement Violation Percent - Concentration Minimum	Measurement-Violation
* Measurement Violation Percent - Concentration Maximum	Measurement-Violation
* Violation Date - CV or MV	Measurement-Violation Compliance-Violation
* Measurement/Violation Report Designator	Measurement-Violation
* Measurement/Violation Discharge Number	Measurement-Violation
* Measurement/Violation Percent - All	Measurement-Violation
* Measurement/Violation Limit Type	Measurement-Violation
* Measurement/Violation Monitoring Location	Measurement-Violation
* Measurement/Violation Modification Number	Measurement-Violation
* Measurement/Violation Parameter	Measurement-Violation
* Measurement Violation Percent Quantity Average	Measurement-Violation
* Measurement Violation Percent Quantity Maximum	Measurement-Violation
* Measurement/Violation Season Number	Measurement-Violation
* Measurement Violation - Worst Case	Measurement-Violation
* Seasonal DMR Printing Indicators (Limit)	Parameter-Limits
* Contested Parameter Indicator	Parameter-Limits
* Limit User Data Element 1	Parameter-Limits

Data Element Name	Data Type
* Limit User Data Element 2	Parameter-Limits
* Limit User Data Element 3	Parameter-Limits
* Modification Period End Date	Parameter-Limits
* Modification Period Start Date	Parameter-Limits
* Frequency of Analysis	Parameter-Limits
* Archive PL Key	Parameter-Limits
* Concentration Average Limit	Parameter-Limits
* Concentration Minimum Limit	Parameter-Limits
* Concentration Maximum Limit	Parameter-Limits
* Concentration Average Limit Standard	Parameter-Limits
* Concentration Unit Code Standard	Parameter-Limits
* Concentration Minimum Limit Standard	Parameter-Limits
* Concentration Maximum Limit Standard	Parameter-Limits
* Concentration Unit Code	Parameter-Limits
* Limit Type - Numeric	Parameter-Limits
* Quantity Average Limit	Parameter-Limits
* Quantity Maximum Limit	Parameter-Limits
* Quantity Average Limit Standard	Parameter-Limits
* Quantity Unit Code Standard	Parameter-Limits
* Quantity Maximum Limit Standard	Parameter-Limits
* Quantity Unit Code	Parameter-Limits
* Limit Type - Alphabetic	Parameter-Limits
* Monitoring Location	Parameter-Limits
* Modification Number	Parameter-Limits
* Limit Discharge Number	Parameter-Limits
* Limit File Number	Parameter-Limits
* Parameter Code	Parameter-Limits
* Sample Type	Parameter-Limits
* Season Number	Parameter-Limits
* Statistical Base Code	Parameter-Limits
* Standards Basis	Parameter-Limits
* Application Complete Date	Permit-Event
* Application Received Date	Permit-Event
* Permit Date Effective	Permit-Event
* Permit Date Issued	Permit-Event
* Permit Date Expired	Permit-Event
* Public Notification Date	Permit-Event
* Permit Tracking Actual Date	Permit-Event
* Permit Tracking Comment	Permit-Event
* Permit Tracking Event Code	Permit-Event
* Permit Tracking Date Scheduled	Permit-Event
* Permit Tracking User Data Element 1	Permit-Event
* Permit Tracking User Data Element 2	Permit-Event
Receiving POTW NPDES Number	Permit-Facility
* Archival Indicator	Permit-Facility
* Archival Date	Permit-Facility
CFR Code	Permit-Facility
* Categorical Industry Indicator	Permit-Facility
* City Name	Permit-Facility

Data Element Name	Data Type
* City Code	Permit-Facility
* County Name	Permit-Facility
* County Code	Permit-Facility
* Operator Name	Permit-Facility
* Operator Address - City Name	Permit-Facility
* Engineer	Permit-Facility
* Operator Address - State Code	Permit-Facility
* Operator Street Address Line 1	Permit-Facility
* Operator Street Address Line 2	Permit-Facility
* Operator Telephone Number	Permit-Facility
* Operator Address - Zip Code	Permit-Facility
* Federal Facility Identification Number	Permit-Facility
* Latitude	Permit-Facility
* Final Limits Indicator	Permit-Facility
* Latitude/Longitude Code of Accuracy	Permit-Facility
* Longitude	Permit-Facility
* Facility Name	Permit-Facility
* Facility Inactive Code	Permit-Facility
* Facility Inactive Date	Permit-Facility
* Primary Industry Category	Permit-Facility
* Primary Mailing City	Permit-Facility
* Primary Mailing Name	Permit-Facility
* Major Rating Code	Permit-Facility
* Primary Mailing State	Permit-Facility
* Primary Mailing Street Line 1	Permit-Facility
* Primary Mailing Street Line 2	Permit-Facility
* Primary Mailing Zip Code	Permit-Facility
* Needs Suffix	Permit-Facility
* Owner Address - City Name	Permit-Facility
* Cognizant Official	Permit-Facility
* Owner Name	Permit-Facility
* Original Permit Issue Date	Permit-Facility
* Owner Address - State Code	Permit-Facility
* Owner Street Address Line 1	Permit-Facility
* Owner Street Address Line 2	Permit-Facility
* Owner Telephone Number	Permit-Facility
* Owner Address - Zip Code	Permit-Facility
* Permit Type Indicator	Permit-Facility
* Reissuance Control Indicator	Permit-Facility
* Facility Location City	Permit-Facility
* Facility User Data Element 1	Permit-Facility
* Facility User Data Element 2	Permit-Facility
* Facility User Data Element 3	Permit-Facility
* Facility User Data Element 4	Permit-Facility
* Facility User Data Element 5	Permit-Facility
* Facility User Data Element 6	Permit-Facility
* Facility User Data Element 7	Permit-Facility
* Facility User Data Element 8	Permit-Facility
* Facility User Data Element 9	Permit-Facility
* Facility User Data Element 10	Permit-Facility
* Region Code	Permit-Facility

Data Element Name	Data Type
* Reissued Number	Permit-Facility
* Facility Location Name	Permit-Facility
* Facility Location State	Permit-Facility
* Facility Location Street Line 1	Permit-Facility
* Facility Location Street Line 2	Permit-Facility
* Facility Location Telephone Number	Permit-Facility
* Facility Location Zip Code	Permit-Facility
* SIC Code 1972 Facility Description	Permit-Facility
* State Permit Number	Permit-Facility
* State Code	Permit-Facility
* Sub-Region Code	Permit-Facility
* Cognizant Official Telephone	Permit-Facility
* Type of Application	Permit-Facility
* Agency Reviewer	Pipe-Schedule
* Seasonal DMR Printing Indicators (Pipe)	Pipe-Schedule
* Final Limits Start Date	Pipe-Schedule
* Final Limits End Date	Pipe-Schedule
* Archive PS Key	Pipe-Schedule
* Initial Limits Start Date	Pipe-Schedule
* Initial Limits End Date	Pipe-Schedule
* Minimum Number of DMR Lines	Pipe-Schedule
* Interim Limits Start Date	Pipe-Schedule
* Interim Limits End Date	Pipe-Schedule
* Total Number of Reports Due	Pipe-Schedule
* Number of Units in Report Periode	Pipe-Schedule
* Next DMR Submission Due Date	Pipe-Schedule
* Number of Units in Submission Period - EPA	Pipe-Schedule
* Number of Units in Submission Period - State	Pipe-Schedule
* Pipe Inactive Code	Pipe-Schedule
* Pipe Inactive Date	Pipe-Schedule
* Pipe Description	Pipe-Schedule
* Pipe Latitude	Pipe-Schedule
* Pipe Lat/Long Code of Accuracy	Pipe-Schedule
* Pipe Longitude	Pipe-Schedule
* Pipe User Data Element 1	Pipe-Schedule
* Pipe User Data Element 2	Pipe-Schedule
* DMR Form Comments	Pipe-Schedule
* Reporting Units	Pipe-Schedule
* Initial Report Date	Pipe-Schedule
* Initial Submission Date - EPA	Pipe-Schedule
* Initial Submission Date - State	Pipe-Schedule
* DMR Forecasting Submission Date - Both	Pipe-Schedule
* DMR Forecasting Submission Date - EPA	Pipe-Schedule
* DMR Forecasting Submission Date - State	Pipe-Schedule
* Submission Unit - EPA	Pipe-Schedule
* Submission Unit - State	Pipe-Schedule