Pollutant Minimization Program (PMP) Plans
Guidance Manual
for Wastewater Treatment Facilities
in New York State

September 2004

This Manual was developed by staff of the NYS DEC Division of Water and the Center for Integrated Waste Management of the University at ·Buffalo under a contract between the Center and the New England Interstate Water Pollution Control Commission. Funds for the project were provided under a grant from the United States Environmental Protection Agency.

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Pollutant Minimization Programs (PMP) for Wastewater Treatment Facilities In New York State

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1. Introduction, Background, and Overview

1.1 Introduction

The goal of Pollution Minimization Programs (PMP) for New York State point source dischargers and industrial users discharging to publicly owned treatment facilities is to achieve effluent quality at or below the water quality-based effluent standard. Achieving the stringent pollutant-specific water quality standards demanded by state, national and international water quality goals now requires extra effort and performance measures. The purpose of a PMP guidance manual for regulatory agencies is to assure that treatment facility managers are informed on what is required and understand the steps needed to demonstrate that a strategy is being implemented. Carrying out a PMP requires certain activities to be conducted and performance measures to be defined and assessed towards achievement of a pollutant-specific goal in an industrial sector process.

Monitoring and reporting are critical to a PMP and its steps are subject to regulatory oversight; however PMP goals are results-based. It is therefore the responsibility of the permittee to demonstrate continued progress towards achieving compliance with the goals.

This manual is intended to be a reference for use by those responsible for development of Pollutant Minimization Programs at wastewater treatment plants. It was developed cooperatively by the New York State Department of Environmental Conservation's Division of Water and the Center for Integrated Waste Management of the University at Buffalo (the Center). Funding for the development and distribution of the manual was provided by the United States Environmental Protection Agency through a grant to the New England Interstate Water Pollution Control Commission, which contracted with the Center.

1.2 Background - (GLI, BCCs, and New York State's WQ Standards)

Recognizing the significance of the Great Lakes as a resource and the challenges that the resource faced, EPA and the Great Lakes states agreed in 1995 to a comprehensive plan to restore and sustain the health of the Great Lakes. The resulting Water Quality Guidance for the Great Lakes System is known as the Great Lakes Initiative (GLI). The GLI establishes minimum water quality standards, anti-degradation policies, and implementation procedures for protecting and improving the waters of the Great Lakes System. Particular emphasis in the GLI was placed

on reducing the levels of toxics being introduced to the Great Lakes System, especially persistent and bioaccumulative toxics. *Bioaccumulative* is the term used to describe chemicals that do not easily break down, enabling concentrations of them in an organism to increase up the food chain. Thus, people and the animals, birds and fish that are at the top of the food chain are exposed to the highest levels of these toxics. The GLI lists 22 bioaccumulative chemicals of concern (BCCs), including mercury, polychlorinated biphenyls (PCBs), dioxin, chlordane, DDT, mirex and 16 other highly bioaccumulative chemicals.

Because BCC's are harmful at extremely low concentrations, permitted discharge levels frequently need to be set at a calculated water quality based effluent limit (WQBEL) that is below the Practical Quantitation Limit (PQL). In such cases, analytical uncertainties make it impossible to be certain of providing the necessary protection of water quality by simple establishment of an effluent limit. One rational approach to permitting -and more significantly – protecting the environment in such circumstances is for the permit to require the discharger to submit a Pollutant Minimization Program (PMP).

A PMP can be defined as an organized set of activities focused on achieving the maximum reduction of the target pollutant in the facility's discharge through means other than treatment at the facility.

1.2.1 PMP Pollutant Listings and Water Quality Standards

Among the 22 BCCs identified in the list Great Lake Initiative, EPA has further identified a list of 12 persistent, bioaccumulative, and toxic (PBT) priority contaminants. Mercury, PCBs, Dioxins/Furans (PCDD/F), DDE, Dieldren, and Mirex are on this PBT Listing and are listed in Table 1 along with the New York State water quality standard for each, its measured concentration in Lake Ontario surface waters and an assessment of whether the water quality standard is exceeded.

Critical Pollutant	NYS WQ Standard	Measured Concentration	WQ Standard Exceeded?
PCBs	1.0	110	Yes
Dioxin & Furans (PCDD/F)	0.0006	0.0046	Yes
p,p'-DDE	7.0	10	Yes
Dieldren	0.6	51	Yes
Mirex	1	need data	?
Dissolved Mercury	700	need data	?

Table 1. Critical Pollutant Concentrations in Lake Ontario Surface Water (compared to New York State water quality standards *I* criteria (parts per quadrillion (pg/l).

Where pollutant concentrations measured in wastewater effluent from point source dischargers also exceed the water quality standard, a PMP is needed.

1.2.2 PMP Focus -The requirement for a PMP applies to all direct discharges to receiving waters as a condition for receiving a variance from a water quality based effluent limitation (WQBEL). This guidance document is provided to assist industrial and municipal wastewater dischargers in New York State develop plans and programs to achieving water quality based effluent limits established in their State Permit Discharge Elimination System (SPDES) permits. Industrial users that discharge to a municipal sewer system represent potential sources that may need further discharge control to achieve water quality standards. Critical pollutants for which PMP's are expected to be needed in the short term currently include: mercury, dioxin (PCDD/F), PCBs, and pesticides.

1.3 Overview (PMP Summary)

Each discharger needs to determine how best to comply with the strict water quality based effluent limits and related operation requirements. Designing a pollutant-specific plan that can be updated annually and monitored during implementation is critical to success. Establishing partnerships is important in the process to achieve the best results.

A PMP plan defines the permittee's commitments for 1) identification of potential sources causing a problem in the discharge, 2) design of reasonable and cost effective remedial measures,

3) monitoring and source trackdown, and 4) resources and staffing. Implementation of effective control measures for all sources is the desired outcome. A status report is to be prepared listing the potential and known sources with a summary of the remedial actions taken to reduce or eliminate discharges. Monitoring and source reduction results are to be used to adjust the PMP plan, report on the discharge and measure progress. The PMP is a "self-revising process." Annual reporting is used to identify and lead the way to necessary adjustments.

The goal of the PMP is to maintain the effluent at or below the Water Quality Based Effluent Limit (WQBEL).

Part 1 of this Manual provides an overview of what is needed for developing a PMP. Within Part 1, in addition to the current chapter, Chapter 2 provides a review of the regulatory requirements and a New York State perspective for meeting water quality limits. Chapter 3 presents preliminary information on development of control strategies and on selecting a trackdown approach and field sampling methods. The structure and components of PMP implementation are presented in Chapter 4. Special consideration in establishing local limits for industrial users (IUs) and Publicly Owned Treatment Works (POTWs) are presented in Chapter 5.

Part 2 of the Manual contains more detailed information on each of the subjects touched on in Part 1, in addition to a "typical" PMP for Mercury. Also, a glossary is presented in Appendix A and a reference list, list of usefu1 websites, and NYSDEC contacts are included in other Appendices.

2. Regulatory Requirements

2.1 Federal

The requirement for PMP's is included in federal regulations in 40 CFR 132, Appendix F, Procedure 8: Water Quality-based Effluent Limitations Below the Quantification Level and states as follows:

> ***Pollutant Minimization Program.*** *The permitting authority shall include a condition in the permit requiring the permittee to develop and conduct a pollutant minimization program for each pollutant with a WQBEL below the quantification level. The goal of the pollutant minimization program shall be to maintain the effluent at or below the WQBEL. In addition, States and Tribes may consider cost-effectiveness when evaluating the requirements of a PMP. The pollutant minimization program shall include, but is not limited to, the following:*
>
> 1. *An annual review and semi-annual monitoring of potential sources of the pollutant, which may include fish tissue monitoring and other bio-uptake sampling;*
> 2. *Quarterly monitoring for the pollutant in the influent to the wastewater treatment system;*
> 3. *Submittal of a control strategy designed to proceed toward the goal of maintaining the effluent below the WQBEL;*
> 4. *Implementation of appropriate, cost-effective control measures consistent with the control strategy; and*
> 5. *An annual status report that shall be sent to the permitting authority including:*
>   a. *All minimization program monitoring results for the previous year;*
>   b. *A list of potential sources of the pollutant; and*
>   c. *A summary of all action undertaken pursuant to the control strategy.*
> 6. *Any information generated as a result of procedure 8.D can be used to support a request for subsequent permit modifications, including revisions to (e.g., more or less frequent monitoring), or removal of the requirements of procedure 8.D, consistent with 40 CFR 122.44, 122.62 and 122.63.*

2.2 New York State, Applicable to Municipal Dischargers

Acting to implement the federal regulatory requirement, NYSDEC' s Division of Water incorporated the following into its Technical and Operating Guidance Series (TOGS):

SPDES Permit Development for POTWS {TOGS 1.3.3):

Consistent with 40 CFR 132, Appendix F, Procedure 8, when the discharge is tributary to the Great Lakes the permit should contain a requirement for the permittee to conduct a Pollutant Minimization Program (PMP) for WQBELs set at the PQL. The goal of the PMP is to achieve the calculated WQBEL.

For WQBELs based on the protection of aquatic life (acute or chronic toxicity) which are below the detection limit, the permit should require either a Whole Effluent Toxicity Testing (WET) program conducted in accordance with TOGS 1.3.2. or a PMP as described in the following two paragraphs. If required, the WET program constitutes a PMP for these WQBELs.

For WQBELs based on the protection of human health or wildlife which are below the detection limit, the permit should require the permittee to propose a PMP within six months after the effective date of the permit (EPD +six months) which contains pollutant mass balance and source track down using the EPA "Guidance Manual on the Development of Local Discharge Limitation Under the Pretreatment Program" as a guideline. The PMP should include an analysis of potential significant sources (at least five percent of the estimated headworks mass loading) of the pollutant including industrial and non-industrial sources, non-active hazardous waste sites, storm water runoff, and wet and dry atmospheric deposition.

If the PMP identifies controllable sources of the pollutant, it should include a schedule to reduce the amount of the pollutant to the maximum extent practicable. It is recommended that the PMP examine voluntary source reductions (domestic and non-domestic sources), product substitutions, and other pollutant minimization programs to reduce the pollutant loading to the system. (e.g. including but not limited to the following examples: household hazardous waste collection, dental and photo processing BMPs, sewer user notification on consequences of disposing toxic substances to the sewer system, and other pollution prevention methods.)

A PMP should not be required for a substance for which the Department has determined is ubiquitous in the environment and is not subject to effective reduction strategies, and for which the controllable sources are a de-minimus portions of the Waste Load Allocation (WLA) established pursuant to a TMDL.

A PMP need not be required if the permittee can demonstrate compliance with the calculated WQBEL by providing the following information:
.... information that the substance is removed or destroyed by the treatment process
.... mass balance based on actual measured quantities of the origins of the substance and the pathways and partitioning of the substance through the collection system and treatment process
.... fish tissue studies or other biological studies in the vicinity of the discharge.

2.3 New York State, Applicable to Industrial Dischargers

Industrial Permit Writing (TOGS 1.2.1);

Except as noted below, a requirement for submission of a PMP or a PMP plan should be included in the permit for substances limited at the PQL in lieu of a more stringent calculated WQBEL for:

(i) Discharges to the Great Lakes Basin

(ii) Discharges to receiving waters outside of the Great Lakes Basin for which the classified use is impaired or precluded by that substance.

PMPs requirements should be written as follows:

(i) For WQBELs developed to protect aquatic life from acute or chronic toxicity, the permit writer should include toxicity testing language from TOGS 1.3.2. as the PMP, including monitoring, trackdown and toxicity reduction evaluation requirements.

(ii) For WQBELs other than those developed to protect aquatic life from acute or chronic toxicity, the permit writer should include the PMP permit page in Attachment A.

The permit writer should not include a requirement for a PMP or PMP plan to address discharges of substances where the department has determined that the substances are ubiquitous and not subject to effective reduction strategies.

The permit writer should also not include a requirement for a PMP or PMP plan if the permittee provides a compelling demonstration that the discharge of a substance limited at the PQL in lieu of a more stringent WQBEL is reasonably expected to be in consistent compliance with the WQBEL at the point of discharge to the receiving water. This demonstration may include:

(i) treatment information, including information derived from modeling the destruction or removal of pollutants in the treatment process;

(ii) mass balance information, including inferred mass balance information based on knowledge about the processes and raw materials; and/or

(iii) fish tissue studies or other biological studies.

If there is ongoing remediation at the site of an existing or proposed discharge and the remediation addresses those substances that would be limited at the PQL in lieu of a WQBEL and a remedial work plan for the site, including but not limited to any operation and maintenance plan, meets the substantive requirements of a PMP plan, the permit writer should refer to ongoing remediation efforts as equivalent to the PMP requirements in 40 CFR Part 132.

2.4. PMP Permit Page (Attachment A of TOGS1.2.1)

Attachment A - STANDARD PMP PAGE

Form 91-20-2PMP (1/98)
(facsimile)

SPDES Number NY	Part 1 Page __ of ___

SPECIAL CONDITIONS - POLLUTANT MINIMIZATION PROGRAM

1. The permittee shall develop and implement a Pollutant Minimization Program (PMP). The goal of this program will be to meet the calculated water quality based effluent limit for the following substances:

By [WITHIN 6 MONTHS OF THE EDP(M)], the completed, approvable PMP plan shall be submitted to
the Regional Water Engineer at the address listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS.

2. The PMP plan shall be documented in narrative form and shall include any necessary plot plans, drawings or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan or Best Management Practices Plan (BMP) may be used as part of the plan and may be incorporated by reference. As a minimum, the plan shall include:

a. An on-going potential source identification, evaluation and prioritization program;
b. Periodic monitoring designed to quantify and, over time, track the reduction of discharges of the substances noted above;

[FOR USE WHEN THE SOURCES ARE MORE EASILY FOUND AND ADDRESSED]

c. An approvable control strategy (including a schedule for implementation) for reducing discharges via cost-effective control measures, which may include but is not limited to site treatment or remediation for the substances noted in (1.) above. The schedule for implementation and the control strategy will become enforceable under this permit; and

[FOR USE WHEN THE SOURCES AND SOLUTIONS ARE LESS EASILY FOUND AND ADDRESSED]

c. An approvable schedule for submission of an approvable control strategy for reducing discharges via cost-effective control measures, including but not limited to site treatment or remediation for the substances noted in (1.) above. The schedule for submission of a control strategy will become enforceable under this permit. The schedule the control strategy and the schedule for implementation of the control strategy will become enforceable under this permit; and
d. An annual status report that summarizes all source monitoring and all control measures implemented during the previous calendar year shall be prepared and submitted to the Regional Water Engineer by March 1 of each year.

3. The PMP plan shall be modified whenever changes at the facility increase the potential for discharge of the substance(s) noted in (1.) above or where ongoing monitoring indicates that the plan is ineffective.

2.5 Requirements Perspective

The goal of the PMP is to maintain the effluent at or below the WQBEL. Federal law and regulations emphasize the need for a strategy, cost effective measures, and reporting. While it is expected that facility and permit conditions will vary, there a number of necessary elements for a PMP plan to be complete. These include:

1. A program plan, identifying the facilities commitments for:
    a. Identification of potential sources that contribute to discharger levels
    b. Reasonable, cost-effective activities designed to mitigate source loadings
    c. Source monitoring and tracking source reduction implementation
    d. Monitoring and progress reporting on a periodic basis
    e. Demonstrate adequate resources and staffing
2. Implementation effective measures to control source sectors
3. Annual status report submitted to the Permitting Authority.
    a. List of potential sources
    b. Summary of actions taken
    c. Source reduction activities and results from previous year
    d. Adjustment (proposal or acted on) to the program plan based on findings

> *The PMP is meant to be a self-revising process. Annual report results need to be used to make necessary revisions to the plan and the implementation activities.*

By acting on problems discovered and investigating new areas where a pollutant can be found, the goal of the PMP (to maintain the effluent at or below the WQBEL) can be achieved. When this happens, the PMP requirements can be removed from the SPDES permit.

3. Developing PMP Plans - Overview of the Steps

3.1 Identification of Potential Sources

Sources of a pollutant can be identified using two basic methods: 1) review of existing information, and 2) sampling at various points in the process or sewer system. Design a monitoring plan that focuses on the most potentially significant source. Certain industrial sectors require certain investigative activities. These "source sectors" have unique production processes, materials usage, and discharge information to evaluate. For municipal systems, evaluations need to address influent, effluent and biosolids data. Other considerations include groundwater influence (infiltration and inflow), storm water input, the contribution from atmospheric deposition, and all waste streams to the sewer system.

When considering potential sources of the target pollutant(s), don't overlook some that may not be obvious. These include groundwater (Infiltration and inflow), storm water input, contribution from atmospheric deposition and all waste streams into the sewer system

3.2 Development of Control Strategies and Activities

Each industrial source sector involves activities for investigation and control. These activities in turn have performance measures and goals that are to be achieved. The identification of control strategies already implemented forms the base for the identification for new control activities in the PMP plan. Proposed activities will need a schedule for implementation with milestones identified as appropriate.

3.3 Performance Measures and Goals

A milestone is reached when a performance measure has been achieved. By establishing the goal or endpoint as part of the control strategy, the milestones and their respective performance measures can be identified. **Table 2** provides an example for the identification of a source sector, control strategies, performance measures and the goal.

Source Sector	Control Activity	Performance Measure	Goal (Endpoint)
Dental Clinics (Mercury)	Mail BMP info.	Date/content	Acknowledge
	Dentist Meetings	Participation	Accomplished
	Visits / Surveys	Accomplished	Identify Sources
	Identify BMP	Implement	Identify Result
	Recycling	Quantity Measure	Minimize Source
	Advanced Removal	Install / Measure	Reduction Data

Table 2. Source sector, control strategies, performance measures and goal identification

3.4 Effective Control Strategies

Activities are to be tailored to specific source sectors and will need partnerships to implement. Potential partners include all stakeholders such as industrial representatives, local government officials, health agency staff, treatment facility workers, public organizations, technical staff, and academic / research representatives. Legal authority issues may need consideration for some strategies such as requirements for industrial users to a municipal system.

3.5 Monitoring of Potential Sources

In addition to a review of existing source information, the PMP plan needs to monitor known and suspected sources of the targeted pollutant. Linking the monitoring strategy to a performance measure and goal as in Table 2 can also be useful. The Water Quality Guidance for the Great Lakes System, 40 CFR 132, Appendix F, Procedure 8.D. requires semi-annual monitoring of potential sources of the subject pollutant, and quarterly monitoring of the wastewater treatment plant influent. Where there are large numbers of individual sources (e.g.in a municipal system), representative sampling could be conducted to determine how much a given type or source adds to the system load, and to gauge the effectiveness of outreach efforts. In some situations, monitoring methods other than chemical analysis (such as mass- or materials- balance) may be appropriate, such as where the sources have low individual loadings or are episodic in nature. In general, the plan should lay out a monitoring schedule that will allow the permittee to establish baseline levels, determine the effectiveness of various activities and track progress of the PMP.

3.5.1 Trackdown Approach (See Chapter 6)

The objective of the PMP plan is to reduce the targeted pollutant in a facility's wastewater to the maximum extent practicable. Control activities use multiple approaches including bans on the manufacture and use of chemicals (e.g. PCBs), mathematical modeling and trackdown for source identification. Understanding a targeted chemical is fundamental to increasing the success of abating sources.

Chapter 6 provides specific information on mercury and PCB trackdown that is applicable to other pollutants. Components include:

- **Project Design** - this has three parts: preliminary planning and surveys, monitoring activities, and data assessment.
- **Quality Control** - standard and non-standard methods are acceptable depending on the project design. Data accuracy needs to be addressed in terms of delectability, reproducibility, and interferences.
- **Documents** - record keeping and data management are essential.
- **Tools** - successful trackdown requires a commitment of resources. The elements to field sampling include: design, methods, analysis, and data use. These elements are addressed below:

3.5.2 Field Sampling Methods (See Chapter 6)

Sampling and analytical methods used in conducting the PMP designed monitoring plan can vary based on the purposes for which the data will be used, and the location of the sample within a given process or municipal system. Given the need to compare results with variance -based limits and the underlying WQBEL, certain methods (such as methods 1669 and 1631 for mercury) will need to be use for effluent monitoring. However, while these methods can be successfully run on Industrial User effluents and other points within a municipal system, less sensitive methods and less-strict sampling protocol may be appropriate for some influent or collection system samples. Influent levels of mercury to municipal systems are commonly in the *50* to 200 ng/L range. EPA Methods 1669 and 1631 are performance based which means that "alternate procedures may be use so long as these procedures are

demonstrated to yield reliable results. In other words, less stringent procedures may be used as long as contaminant levels are maintained at acceptable levels and sensitivity and other quality control requirements are met.

Chapter 6 provides information on field sampling. To accomplish trackdown, the PMP plan needs to address the sample plan design, select the appropriate sample method, define laboratory analysis, and confirm proper data storage, manipulation, and interpretation. Depending on the plan design, the sampling can evaluate water quality, suspended sediments, and/or bottom sediments. One must employ a New York State approved laboratory for the specific parameter to be analyzed.

3.6 Generic PMP Development -Phased Approach (See Chapter 7)

Summary Description of the Process for Developing; a Pollutant Minimization		
Phase of PMP Development	**Description of the Phase**	**Steps of the Process Involved in the Phase**
Phase I	Plan of Study	I. Target the pollutant
		2. Lay the Groundwork
		3. Identify stakeholders and Develop Partnerships
Phase 2	Data Gathering, Data Analyses, Plan of Action	4. Gather Information
		5. Locate and Quantify Sources
Phase 3	Actions and Reporting	6. Pollutant(s) Minimization Actions

3.7 State Review of PMP Development Plans

Review and approval of PMP plans will be necessary to ensure that their implementation moves towards the goal of maintaining pollutant concentrations at or below the WQBEL. NYSDEC formally requires the development and implementation of PMP plans in the point source SPDES discharge permits. Partnerships are a key to successful implementation. NYSDEC reserves the authority for plan and project approval; however, a "formal approval step" should not be interpreted as a cause to delay project implementation. The PMP plan is a dynamic process subject to annual reporting and adjustment in activities. A team approach is necessary for success.

The plans will be reviewed based on addressing the necessary elements as described above and contained in the generic guidance in the Appendices. As shown in Table 2, the identification of control activities, performance measures, and defined endpoints are to be evaluated for completeness. Proposed PMP plans are to be submitted within a reasonable period of time (e.g. up to 12 months or as specified in the SPDES permit).

Upon formal approval, implementation would be required as a condition of the permit.

NYSDEC plans to adopt specific pollutant guidance for *PMP* plans. Chapter 10 provides guidance for mercury (Hg) discharges to POTWs. An application of the "generic approach" for mercury discharges is also included in the appendices.

4 PMP Implementation Components (See Chapter 8)

Upon approval of the PMP plan and/or based on best profession judgment, PMP implementation is required (including its monitoring, tracking, and reporting). Government agencies are engaging in providing technical assistance and in identifying best approaches; however, resources are limited. A summary of the components that need the proper attention are:

4.1 Project Management

The PMP is to summarize the resources and staff that will be committed to implementation activities. This includes source, amount of funding, staff. and partners.

4.2 Source Identification

Presents data, analysis, conclusions and statements of intended actions. Activities include compiling data, assessment, and application of the checklist and template PMP components (See Chapter 8).

4.3 Summary of Actions

Initial actions when properly planned can be expected to have an impact; thereby, clearing the path for follow-up actions.

4.4 Monitoring Results

As in the design of the PMP plan monitoring results provide valuable information in adjusting remedial measures. Because the PMP is a dynamic process, it is expected that iterations of control actions can be warranted.

4.5 Revision of PMP Plans

Based on sound PMP planning and follow-up monitoring, revisions or adjustments in the scope of implementation activities may be indicated by monitoring results. Presenting a consistent plan is expected.

4.6 Status Reporting

Reporting on implementation progress is required to document control of the PMP targeted pollutant. Annual reporting is typical. Trending data will be important to reporting and determining the maximum removal practicable.

4.7 Compliance Determination

Based on the above implementation activities, NYSDEC is to establish a position on compliance of meeting the WQBEL for a permittee and targeted pollutant. An evaluation is to be made to determine if the effluent concentration is less than the currently achievable level as established through the SPDES permit variance process. Specific PMP requirements in the permit must be achieved. The annual status report is the primary means of compliance evaluation.

4.8 "Getting the PMP Rolling" (See Chapter 9)

Mobilizing facility management and establishing a PMP team are difficult tasks. Tasks include development of a mission statement, assigning roles including meeting roles, developing agendas and meeting procedures, and ultimately coming to consensus on a course of action. Public involvement and assuring information flow are important elements of getting the PMP rolling.

5. Approaches to Establish Local Limits (For POTWs and Industrial Users)

5.1 Background on Local Limits

Local limits are developed by POTWs to implement the general and specific prohibitions of the General Pretreatment Regulations, CFR 403, and are established to prevent discharges that cause pass through, interference, or which threaten the worker health and safety. USEPA's guidance manual on the Development and Implementation of Local Discharge Limitations under the Pretreatment Program (EPA 833-887-2-02. Dec. 1987) identifies ten pollutants, including mercury, which are presumed to be pollutants of concern, and should be evaluated to determine whether local limits should be established. Where established, local limits for mercury and other pollutants are typically expressed as daily maximum and/or a longer term average concentration.

The National Pretreatment Program and its underlying regulations also apply to Industrial Users and point source industrial dischargers. An Industrial User discharges to a POTW and can be regulated by local limits established by the municipality. Many of these limits are based on federal industrial categorical standards applicable to an industrial sector and addressing end of process pipe effluent discharge water quality. Where local limits have not been enforced (e.g. dental clinics, schools), voluntary outreach actions and education efforts have been most effective. To facilitate participation in implementing Best Management Practices (BMPs) and other source reduction strategies, the issuance of local limits is increasing.

5.2 Best Management Practices (BMPs) as Local Limits

Establishing specific local limits for industrial sectors can be accomplished; however ensuring compliance is difficult and at times not feasible. Alternative methods can be applied by selected industries to demonstrate compliance with local limits and/or categorical standards. The regulations do not specifically address this issue. The goal of pretreatment is to remove undesirable pollutants from discharges to POTWs to prevent pass through, treatment

interference, and to protect facility workers. Sludge contamination also needs to be addressed. It is clear that the development and implementation of a PMP plan can be considered as a type of narrative limit that can be useful in supplementing compliance with specific numeric limits.

The structuring, evaluation, and incorporation of BMPs into a PMP plan is to be handled on an individual facility basis with consideration for the industrial sector. A PMP approach is expected as is the implementation of control actions, performance measures, and established endpoints.