Water Bureau
August 2002
(Revised January 2005)
Procedure for Reviewing
Pollutant Minimization Programs

Introduction

Pollutant Minimization Programs (PMPs) are designed to identify and remove sources of toxic substances to meet a water quality-based effluent limit (WQBEL). Described in the Part 8 rules, Rule 1213(1)(d), these special conditions are part of specific National Pollutant Discharge Elimination System (NPDES) permits or an equivalent document and require the permittee to "…develop and conduct a pollutant minimization program (PMP) for each toxic substance with a WQBEL below the quantification limit…" Part (d) goes on to say that "The goal of the PMP shall be to maintain the effluent concentration of the toxic substance at or below the WQBEL."

According to Rule 1213, the permittee is charged with developing the PMP which, according to Part (1)(d), "… describes the control strategy *designed to proceed toward achievement of the goal*…" (emphasis added). Once this plan is approved by the District Supervisor from the Water Bureau (WB), the permittee is required to implement the PMP and provide yearly updates that document progress towards achieving the goal as described in Part (1)(d).

Because each permitted facility and discharge is unique, the specifics of individual PMPs may be highly variable, containing site-specific strategies necessary to reach the intended goal. Rule 1213 requires that all PMPs be composed of essentially the same fundamental components in that they all require:

- An annual review and semiannual monitoring of potential sources of the toxic substance.
- Quarterly monitoring for the toxic substance in the influent to the wastewater treatment system.
- A commitment by the permittee that reasonable cost-effective control measures will be implemented when sources of the toxic substance are discovered.
- An annual status report.

The annual status report is sent to the appropriate District Supervisor and includes:

- All minimization program monitoring results for the previous year.
- A list of potential sources of the toxic substance.
- A summary of all *actions taken* (emphasis added) to reduce or eliminate the identified sources of the toxic substances.

As a part of this program, the permit may also contain requirements for facility sludge monitoring, fish tissue, or other biouptake sampling to assess the progress of the PMP.

PMPs are recommended by staff from the Surface Water Assessment Section (SWAS) with WQBELs when:

- Data indicate the presence of a toxic substance with a WQBEL below the quantification level and therefore covered by Rule 1213.

- A variance has been granted per Rule 1103(6)(b) or (9).

As an example, polychlorinated biphenyls (PCBs) are a class of pollutants that have a quantification level well above the WQBEL. A PMP will be required under the authority of Rule 1213 when a facility has been identified as potentially discharging PCBs above the WQBEL.

PMPs were originally created for mercury in the same fashion as the PCB example above when the WQBEL for this metal was less than the quantification limit. However, the promulgation of United States Environmental Protection Agency (USEPA) Analytical Method 1631 now allows for the quantification of mercury at a concentration that is less than the WQBEL. Because of this new analytical method, the continuation of existing PMPs and the creation of new PMPs for mercury will occur under the authority of Rule 1103.

When a PMP is recommended by the SWAS and included in the issued NPDES permit, a date (or deadline) by which time the permittee must submit a PMP to the appropriate District Supervisor is included. Upon receipt of the draft PMP, the District Supervisor will distribute the proposed document to the SWAS, the appropriate district staff, and the Permits Section for review. Each of these individual sections will then have opportunity to comment from their own unique perspective on the proposed program. These comments are then communicated back to the District Supervisor who ultimately has the final approval authority.

PMP – Review Criteria for Approval

As outlined in Rule 1213, the goal of any PMP is to maintain the effluent concentration of a specific toxic substance at or below the WQBEL. Examples of two generic PMPs that contain the specific elements described in Rule 1213 are given in Appendices A1 and A2. These elements include:

- **An annual review and semiannual monitoring of potential sources of the toxic substance**. PMPs for Publicly Owned Treatment Works (POTWs) may include a list of (common) potential sources, including business and industry, while PMPs involving industrial dischargers should include reviews of the potential sources from internal plant processes or other areas that may contribute contaminated water to the treatment system[1]. The PMP should specify an approved analytical method with an appropriate quantification level. PMPs for mercury will generally specify USEPA Method 1631; however, with some facilities, USEPA Method 245.1 with a quantification level of 0.2 micrograms per liter (ug/L) may be sufficient.

  In some cases, it may be necessary in a PMP to aggregate potential sources of a pollutant and subsample within the aggregation. As an example, a large city may have 5,000 dentist offices spread over a large area. Because semiannual monitoring of all of these potential mercury sources at one time may be logistically and financially impossible, a properly designed subsample could be used to represent this aggregate of potential sources within the city, or a portion of all of this aggregate can be sampled each year until each potential source has been evaluated. Sampling aggregates of potential sources are approved on a case-by-case basis by the District Supervisor. An

[1] It should be noted that municipalities may need to establish the legal authority to require nondomestic users (industry/nondomestic users that discharge to POTWs) to reduce or eliminate a pollutant.

exception to this would be those facilities determined to have the potential to discharge the pollutant that are considered Significant Industrial Users (SIUs) under an industrial pretreatment program. Semiannual self-monitoring and annual POTW monitoring is required for all SIUs.

- **Quarterly monitoring for the toxic substances in the influent to wastewater treatment systems**. A pollutant-specific trigger or action level that invokes a specific response should be clearly identified in this portion of the plan in conjunction with other monitoring activity by the permittee. This specific response must be in accordance with some activity that moves towards the identification and reduction or elimination of the source of the toxic pollutant. As with source monitoring, an approved analytical method must be specified in the PMP.

- **A commitment by the permittee that reasonable cost-effective control measures will be implemented when sources of the toxic substances are discovered**. Factors to be considered shall include all of the following[2]:

    1. Significance of sources.
    2. Economic considerations
    3. Technical and treatability considerations.

When charged with the responsibility of reviewing a proposed PMP, it is important that the goal of the PMP is considered at all times. As such, reporting data without committing to use the data to help identify and reduce or eliminate a pollutant source may not necessarily move the permittee towards this goal. Therefore, it is important that the reviewer continually question how individual PMP activities or monitoring data are used to identify, reduce, or eliminate a pollutant source.

Once the review process is complete, comments and recommendations are submitted to the appropriate District Supervisor. It is the responsibility of the District Supervisor to review the comments, require changes where appropriate or the correction of deficiencies, and eventually approve each individual PMP. Once approved, the permittee is required to execute the PMP as part of their NPDES permit. Significant changes to the original program should be submitted to the appropriate District Supervisor by the permittee for approval.

PMP - Annual Report Review

Annual PMP reports are submitted to the appropriate District Supervisor one year after the program goes into effect. The annual report is intended to describe the status (progress that may include successes or failures) of the PMP. The District Supervisor will in turn distribute the annual report to the Permits Section, SWAS, and District Industrial Pretreatment Program (IPP) staff for their review. It is important to note that as a facility progresses towards locating and removing/minimizing sources of contamination, deviations from the original program will occur. This is to be expected as monitoring data may require additional sampling plans or remedial activities that were not anticipated in the original program. Proposed changes to the PMP may be included in a summary section of the annual report or as a timely communication, separate from the annual PMP report. Nonetheless, all annual reports should, by rule, contain:

A. **All PMP monitoring results for the previous year**. All data that was collected during the past year including influent, effluent, and data collected from potential sources should be

[2] A discussion pertaining to the intent of the PMP process from the Supplementary Information Document (Water Quality Guidance for the Great Lakes, EPA-820-B-95-001) that includes items 1, 2, and 3 listed above is attached to this document as Appendix F.

included with the annual report. Sampling dates, method of analysis, the laboratory name, and proper units should all be clearly identified for review purposes.

B. **A list of potential sources of the toxic substance**. This list may include the potential sources that were identified in the program, as well as a list of new potential sources that have been identified as a result of monitoring data.

C. **A summary of *all* *actions taken* to reduce or eliminate the identified sources of toxic substances** (emphasis added). This may include the actions that are in response to monitoring results as described above and/or additional actions that do not include monitoring that have occurred and are designed to move towards the goal. In other words, the report should identify what they found and what they are now doing because of what they found. The statement, "…will continue to monitor…," when used as the only action following the exceedance of a trigger or action level should be accepted as a last resort, as this action, by itself, does not necessarily move the permittee towards the PMP goal.

In some cases, the PMP annual report requirement may be largely fulfilled by the permittee using a format that is similar to the example provided in Appendix B. Additional information that exceeds this suggested format may be attached as a separate document. While it may be possible for some permittee's to use this report format verbatim, district staff are encouraged to use this report example as a guide to help each permittee meet the requirements of the PMP annual report .

As stated above, it is the responsibility of the District Supervisor to distribute the PMP annual report to the Permits Section, SWAS, and District IPP staff for their review. This initial review should begin by using the appropriate checklist (Appendices C and D) to ensure that specific requirements for any PMP, as described in the preceding portions of this document, are present. The use of this checklist will also serve to standardize the review process within the WB.

PMP Review and Approval Process

PMPs are a component of an NPDES permit and are created as part of the permit development process. The process of developing a PMP begins with a recommendation by the SWAS; however, the entire process also involves both the Permits Section and District Staff. In addition, PMP reviews by WB staff must be accomplished within certain time constraints. An overview of the PMP Development Process as it would occur under Rule 1213(1)(d) or Rule 1103(6)(b) for development of a PMP is described below. The purpose of this overview is to provide WB staff with an understanding of the PMP development process, including general time constraints.

1. The WB District Office receives an NPDES permit application.

2. The assigned district staff reviews the NPDES permit application and completes the transmittal memo. District staff provides facility information for mercury and any parameters with quantification limits greater than the WQBEL if not already included with the permit application. Staff should review and include relevant daily monitoring results, IPP monitoring results, spill, or other site knowledge, such as soil and groundwater contamination, remediation activities, or enforcement. If the application includes a demonstration to the department that an alternative technique is available to assess compliance with the WQBEL, district staff should provide comments on the Rule 1213(1)(d) demonstration in the application transmittal memo.

3. District staff forwards the NPDES permit application with the transmittal memo to the Permits Section.

4. The Permits Section determines whether a WQBEL review is needed. If a WQBEL is required, the application is forwarded to the SWAS.

5. If the NPDES permit application includes a Rule 1213(1)(d) demonstration or a Rule 1103 variance request for bioaccumulative chemicals of concern, the Permits Section coordinates review of the proposed alternative assessment technique or variance (Permits Section Procedure #28).

6. The SWAS reviews the NPDES permit application information and, when appropriate, recommends WQBEL(s) and PMP permit condition language.

7. The SWAS forwards permit recommendations (WQBELS or monitoring requirements with an analytical quantification level and PMP) for appropriate parameters to the Permits Section.

8. The Permits Section reviews recommendations and determines draft NPDES permit contents. WQBEL(s), either PMP requirements or alternative assessment technology requirements, are incorporated as a special condition.

9. Permit is prepublic noticed and public noticed.

10. The Permits Section receives comments from the stakeholders, including the permittee, public, and department or other agencies.

11. A decision to issue the permit is made and, when appropriate, the NPDES permit is issued with PMP requirements.

12. The permittee drafts (or potentially modifies) and submits a PMP to the WB District Supervisor within the timeframe specified in their NPDES permit[3].

13. District compliance staff distributes the PMP and any initial district comments to the Permits Section, SWAS, and District IPP staff for their review. Consideration should be given to distribute the PMP submittal to other divisions or agencies when remediation or other issues may be relevant to the PMP. Each participating entity has 45 days to submit their respective PMP review comments to the appropriate District Supervisor[4].

14. District staff reviews the PMP (see PMP checklist in Appendix D) and comments received from the Permits Section, SWAS, or any other entity that may be involved.

15a. If the District Supervisor, after considering the input from all applicable reviewers, determines that the PMP is inadequate, the District Supervisor will send a deficiency letter informing the permittee of the program's inadequacies. The permittee must then resubmit an approvable PMP, generally within 60 days of receipt of the deficiency. However, if the modified PMP continues to be inadequate following **reasonable** attempts to modify the plan to an acceptable level, district staff will evaluate the need for escalated enforcement or other actions to return the permittee to compliance. District staff again coordinates WB review as necessary.

OR

[3] For the sake of efficiency and clarity, it is recommended that the permittee and DEQ staff meet to discuss the PMP prior to submittal and/or shortly after the submittal has been found deficient.

[4] District staff should facilitate all communication regarding comments or suggested modifications between the permittee and those entities reviewing the submitted PMP or annual PMP reports. All comments or suggested modifications from reviewing entities should be addressed to the appropriate District Supervisor and not directly to the permittee.

15b. If the PMP is determined to be acceptable, the District Supervisor sends the permittee a PMP approval letter.

16. Once a PMP is approved, the permittee implements the PMP.

17. The permittee submits an annual PMP update (see PMP Annual Report suggested format in Appendix B) to the District Supervisor.

18. District staff distributes the annual PMP report to appropriate reviewers. Each facility may have different review requirements. At a minimum, district staff should provide a copy of the submittal cover letter or other notification to the Permits Section, SWAS, and appropriate district IPP staff to allow an opportunity for review and comment. If the permittee has a PMP for parameters associated with a state or federally regulated remediation project, the regulating agency should be notified of the PMP update.

19. Within 60 days of receipt, the district staff should review the submittal and any comments received on the annual PMP report. A summary of Department of Environmental Quality comments and, when applicable, those comments from other state and federal entities should be communicated by district staff to the permittee within 90 days of the annual PMP report submittal[5].

Approved: David A. Hobbs 9-9-02
Date

[5] District staff should facilitate all communication regarding comments or suggested modifications between the permittee and those entities reviewing the submitted PMP or annual PMP reports. All comments or suggested modifications from reviewing entities should be addressed to the appropriate District Supervisor and not directly to the permittee.

APPENDIX A1

Pollution Minimization Program
(Public Owned Treatment Works)
(City/Village/Township), Michigan

Submitted (date)

The following is an example for Water Bureau staff of a basic Pollution Minimization Program (PMP) for Public Owned Treatment Works (POTWs). This example should not be interpreted as a form or template to be used for all POTWs requiring a PMP but rather as a demonstration of the basic components that should be included in any proposed PMP.

The following is a detailed explanation of a Pollution Minimization Program (PMP) for (facility) and is intended to meet the requirements set forth in R 323.1213(d). This plan consists of five sections:

1. An annual review of potential sources of the toxic substance(s) in question. These sources will include, but are not limited to, businesses/industry where (pollutant) is or has been historically used or geographic areas where this material may have been previously deposited.

2. Semiannual monitoring of potential sources of the toxic substance(s) in question. Points along the collection system where storm water runoff, groundwater, etc., may be entering the collection system may also be included where applicable.

   Existing potential sources will be sampled to determine the presence or absence of (pollutant). Sources, when identified, will be managed alone or in combination with other waste streams so as to move toward the PMP goal of meeting the water quality-based effluent limit (WQBEL) at the point of compliance.

   A summary of all review activities and sampling results will be included in the PMP Annual Report.

3. Quarterly monitoring for the toxic substance in the influent to the wastewater treatment system will be performed and reported in the PMP Annual Reports (format example in Appendix B). Influent samples will consist of a (grab/composite) that will be analyzed at an appropriate quantification level using an approved United States Environmental Protection Agency method, approved alternative test method, or permit specified method.

   When (pollutant) is found (include a trigger or action level here) at monitoring point (station or monitoring point), staff will immediately:

   - (description of action(s) such as immediately resample, notification to nondomestic dischargers, etc.)

     (Optional- part or all) [Sludge, filter residuals, fish tissue monitoring and/or biouptake] data will also be submitted along with influent and effluent data (as with influent data, trigger or action levels for this alternative sampling data may be inserted or here).

   To aid in the review of this program, a detailed diagram of the complete collection system, including (potential) sampling locations and the treatment plant outfall location, has been provided (Figure 1).

4. Reasonable, cost-effective control measures will be implemented when sources of the toxic substance are discovered under Part 1 or 2 listed above. The following factors will be considered when a pollutant source is discovered:

   A. Source significance. An effort to quantify the load potential to the collection system from each identified source will be made. This quantification will assist in prioritizing sources for future reduction/elimination efforts.

   B. Economic considerations will be given regarding the reduction and/or elimination of an identified source.

   C. Where appropriate, technical and treatability considerations may apply to specific sources. A complete description of any such consideration will be detailed on a case-by-case basis in each annual report.

   If/when the targeted pollutant of concern is found (list quantification level if less than the WQBEL; the permittee may also include a trigger or action level here), the following actions will be initiated: (For mercury PMPs only: If/when mercury is detected at or above the WQBEL of 1.3 nanograms per liter (ng/L), the following actions will be initiated):

   Provide a list of activities that describe the response when the pollutant is detected in influent/effluent samples. Activities are intended to describe a logical progression of effort aimed at pinpointing the location of the source. At a minimum, a facility should attempt to quantify the amount (load) of the targeted pollutant and its source. The statement, "…will continue to monitor…," when used as the only action following the exceedance of a trigger or action level, should be accepted as a last resort, as this action, by itself, does not necessarily move the permittee towards the PMP goal.

5. In addition to the above mentioned portion of this plan, PMP Annual Reports will also include a Summary Progress section that will specifically list points of progress towards attaining the goal of the PMP detailed above. This report should be broken down into logical sections that describe the activities and actions taken to reduce or eliminate sources of the targeted pollutant. As an example, the summary document may include sections that describe:

   - Information and Training. This section will describe information outreach activities to individual dischargers within the collection system that may be potential sources of (pollutant), as well as specific training to affected employees, and other efforts to reduce (pollutant) loads through elevated awareness.

   - Identification of (pollutant) sources and action(s) taken towards reduction or elimination of source(s).

   - Changes in sampling strategy in response to (pollutant) detection.

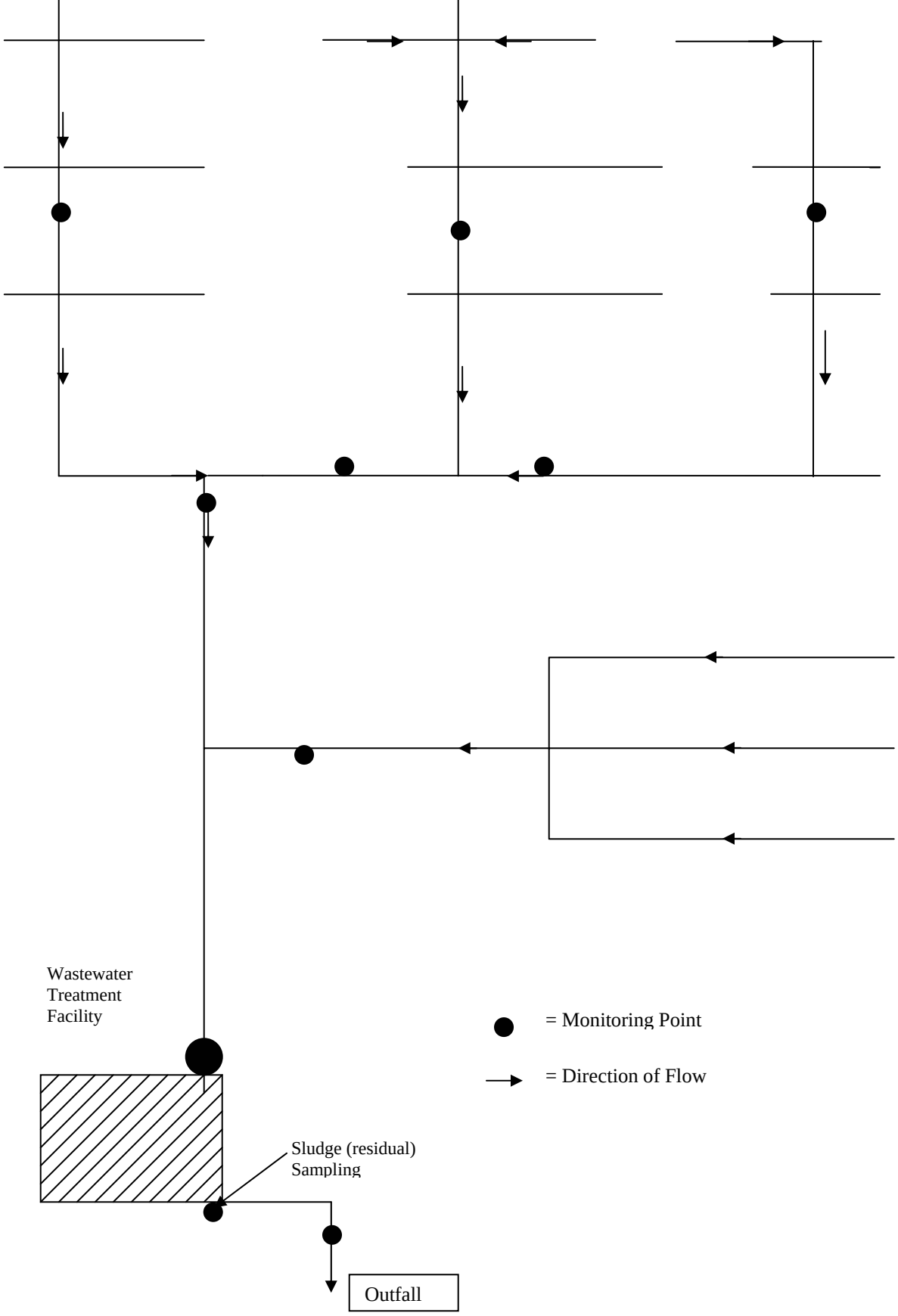

Figure 1. (Name of Community POTW) wastewater collection system indicating direction of influent flow and potential sampling locations.

APPENDIX A2

Pollution Minimization Program
(Industrial Discharge)
XYZ Manufacturing
(City/Village/Township), Michigan

Submitted (date)

The following is an example for Water Bureau staff of a basic Pollution Minimization Program (PMP) for an industrial discharger. This example should not be interpreted as a form or template to be used for all industrial dischargers requiring a PMP but rather as a demonstration of the basic components that should be included in any proposed PMP.

The following is a detailed explanation of a Pollution Minimization Program (PMP) for (Permittee and National Pollutant Discharge Elimination System Number) and is intended to meet the requirements set forth in R 323.1213(d). This program consists of five sections:

1. An annual review of potential sources of the toxic substance(s) in question. These sources will include, but are not limited to, individual plant processes where (pollutant) is or has been historically used, service water supply lines, or geographic areas where this material may have been previously deposited.

2. Semiannual monitoring of potential sources of the toxic substance(s) in question. Points along the collection system where storm water runoff, groundwater, etc., may be entering the collection system may also be included where applicable.

   Existing potential sources will be sampled to determine the presence or absence of (pollutant). Sources, when identified, will be managed alone or in combination with other waste streams so as to move toward the PMP goal of meeting the water quality-based effluent limit (WQBEL) at the point of compliance.

   A summary of all review activities and sampling results will be included in the PMP Annual Report

3. Quarterly monitoring for the toxic substance in the influent to the wastewater treatment system will be performed and reported in the PMP Annual Reports. Influent samples will consist of a (grab/composite) that will be analyzed at an appropriate quantification level using an approved United States Environmental Protection Agency method, approved alternative test method, or permit specified method.

   (Optional – not used or part or all of the following may be required) Sludge, filter residuals, fish tissue monitoring, and/or biouptake data will also be submitted along with influent and effluent data (the permittee may also include an appropriate trigger or action level here for these specific types of monitoring).

   To aid in the review of this program, a detailed diagram of the complete facility collection system, including (potential) sampling locations and the treatment plant outfall location, has been provided (similar to Figure 1 only specific to the manufacturing processes, including wastewater treatment system).

4. Reasonable, cost-effective control measures will be implemented when sources of the toxic substance are discovered under part 1 or 2 listed above. The following factors will be considered when a (pollutant) source is discovered:

   A. Source significance. An effort to quantify the load potential to the collection system from each identified source will be made. This quantification will assist in prioritizing sources for future reduction/elimination efforts.

   B. Economic considerations will be given regarding the containment and/or elimination of an identified source.

   C. Where appropriate, technical and treatability considerations may apply to specific sources. A complete description of any such consideration will be detailed on a case-by-case basis in each annual report.

   If/when the targeted pollutant of concern is detected (list quantification level if less than the WQBEL; the permittee may also include a trigger or action level here), the following actions will be initiated: (For mercury PMPs only: If/when mercury is detected at or above the WQBEL of 1.3 nanograms per liter (ng/L), the following actions will be initiated):

   Provide a list of activities in response to pollutant detection in influent/effluent samples. Activities are intended to describe a logical progression of effort aimed at pinpointing the location of the source. At a minimum, a facility should attempt to quantify the amount (load) of the targeted pollutant and its source. The statement, "…will continue to monitor…," when used as the only action following the exceedance of a trigger or action level, should be accepted as a last resort, as this action, by itself, does not necessarily move the permittee towards the PMP goal.

5. In addition to the above mentioned portion of this plan, PMP Annual Reports will also include a Summary Progress section that will specifically list points of progress towards attaining the goal of the PMP detailed above. This report should be broken down into logical sections that describe the activities and actions taken to reduce or eliminate sources of the targeted pollutant. As an example, the summary document may include sections that describe:

   - Information and Training. This section will describe training activities to individuals that have influence over various plant processes that discharge to the collection system.

   - Identification of (pollutant) sources within plant process areas and action(s) taken towards removal of source(s).

   - Changes in sampling strategy in response to (pollutant) detection.

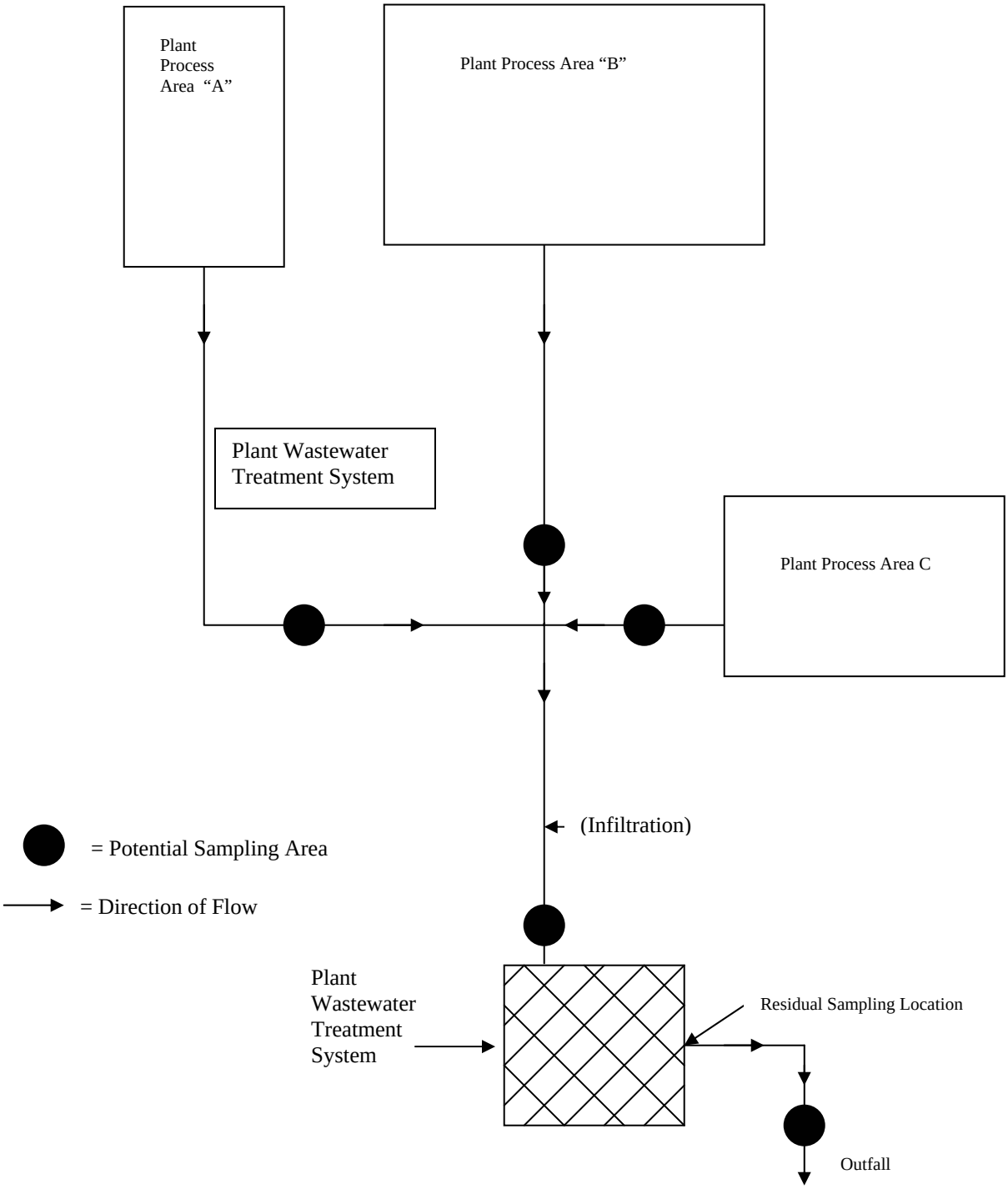

Figure 1. (Name of facility) wastewater collection system indicating direction of influent flow and potential sampling locations.

APPENDIX B

Pollution Minimization Program
(Suggested) Annual Report Format

Submitted (date)

The following is an example for Water Bureau (WB) staff of the basic format for a Pollution Minimization Program (PMP) Annual Report. This general format can be modified as needed for specific needs from a Publicly Owned Treatment Works facility or an industrial discharger. This example should not be interpreted as a form or template to be used for all National Pollutant Discharge Elimination System dischargers requiring a PMP but rather as a demonstration of the basic components that should be included in any PMP Annual Report that has been submitted to the WB for approval.

Pollutant Minimization Program (PMP) Annual Report

1. **Was the approved PMP followed completely during the past year**?

   YES or NO (circle one)

   If no, please attach a statement that clearly describes any and all deviations from the approved program. Include a list of actions or conditions that lead to the program deviation, as well as any interaction with the Department of Environmental Quality, Water Bureau, related to the deviation.

2. **Known sources of contaminant and loading to the wastewater treatment plant (WWTP)**. List any confirmed sources of the toxic substance and an annual loading to the WWTP. Sources may include process and activity waste streams; storm water, sanitary, and groundwater collection and transport systems; remediation and disposal waste streams, and historical contamination waste streams.

Source	concentration / flow / loading to WWTP (use appropriate units)
Suggested Format for Reporting Known Sources	

Attach analytical sample results from all monitoring performed at known sources of contamination. Include detection limit and quantification limit information.

3. **Potential sources of contamination**. List any suspected sources of the toxic substance and, if known, provide an estimate of annual loading to the WWTP.

Potential Source	Concentration / flow / loading estimate (use appropriate units)
Suggested Format for Reporting Suspected Sources	

Attach analytical sample results (if available). Include detection level and quantification level information.

4. **List actions taken to reduce or eliminate the identified sources of the toxic substance**. Actions may include treatment, remediation, investigation, operation, and/or management activities. If no action(s) were taken to reduce or eliminate the identified source, please explain why.

5. **Actions planned to further reduce or eliminate sources of the toxic substance**. (If necessary, attach plans as a separate document.)

Action	Known or estimated reduction	Time frame

Suggested Format for Actions Planned

6. Provide additional comments or information on the facility's progress using its PMP control strategy designed to proceed toward achievement of the goal to maintain the effluent concentration of the toxic substance at or below the water quality-based effluent limit (WQBEL). Include prioritization and performance standard reviews.

_____

_____

_____

_____

7. Attach the analytical results from all minimization program monitoring. Include the results from WWTP influent, effluent, collection system monitoring (i.e., trunk line monitoring), source monitoring, solids, fish tissue, and biouptake monitoring.

APPENDIX C

Surface Water Assessment Section
Initial Pollutant Minimization Program Review for:

(Name of industrial discharger or Publicly Owned Treatment Works)
Date ___ / ___ / ____

The Pollutant Minimization Program (PMP) contained a description of the facility's internal processes (industrial discharger) or a diagram of the wastewater collection system (POTW) so that any discussion of sampling locations can be understood by the reviewer.
(YES or NO) (circle one)

PMP contained a description of the analytical method(s) and appropriate quantification limit used to determine the presence of the targeted pollutant (this method(s) must be consistent with the method requirements as stated in the National Pollutant Discharge Elimination System permit). (YES or NO)

PMP contained a sampling schedule for Influent. (YES or NO)

PMP contained a sampling schedule for Sludge (if required). (YES or NO or N/A)

PMP contained a sampling plan(s) for a Biouptake Study (if required). (YES or NO or N/A)

PMP contained appropriate trigger or actions levels (concentrations) for the targeted pollutant. (YES or NO)

PMP contained a response if the pollutant of concern is detected at or above the trigger (or action) concentration. (YES or NO)

1. Response to pollutant detection was to move monitoring point closer towards source. (YES or NO)

2. Response to pollutant detection was to contact businesses and industries that are known or suspected of discharging the targeted pollutant. (YES or NO)

PMP contained a list of potential (targeted pollutant) dischargers. (YES or NO)

PMP contained a list of known (targeted pollutant) dischargers. (YES or NO)

Additional Comments: (Attach as an additional sheet if necessary)

PMP Annual Report - Initial Review Checklist

PMP Annual Report contained a description of the facility's internal processes (industrial discharger) or a diagram of the wastewater collection system (POTW) so that any discussion of sampling locations can be understood by the reviewer. (YES or NO) (circle one)

PMP Annual Report contained a description of the analytical method(s) and appropriate quantification level(s) used to determine the presence of the targeted pollutant (verify with the NPDES permit that the correct method was used. (YES or NO)

PMP Annual Report contained appropriate trigger or actions levels (concentrations) for the targeted pollutant. (YES or NO)

PMP Annual Report contained Influent Data (YES or NO), Effluent data (YES or NO), sampling results from Potential Sources (YES or NO)

Sampling results indicated the presence of (pollutant) at or above the "trigger or action" level. (YES or NO). If YES, describe the facility's response.

Sampling results indicated the presence of (pollutant) at or above the quantification level (YES or NO). If YES, describe the facility's response.

PMP Annual Report contained the sampling results for Sludge (if required). If sludge data is present, do the results indicate a need for any additional sampling or a change to the PMP (YES or NO or N/A). Explain.

PMP Annual Report contained the sampling results from a Biouptake Study (if required). If biouptake data is present, do the results indicate a need for any additional sampling or a change to the PMP (YES or NO or N/A). Explain.

PMP Annual Report contained a list of potential (targeted pollutant) dischargers. (YES or NO)

PMP Annual Report contained a list of known (targeted pollutant) dischargers. (YES or NO)

Report contained a summary of proposed actions to be performed in the next year. (YES or NO)

Additional Comments: (Attach as an additional sheet if necessary)

APPENDIX D

Pollution Minimization Program Review
District Checklist

(name of industrial discharger or Public Owned treatment Works)
Date ___ / ___ / ____

New Pollutant Minimization Program (PMP) (circle the correct response)

PMP contains a description of the facility's internal processes and collection system so that any discussion of sampling locations can be understood by the reviewer. (YES or NO)

PMP contains a description of the analytical method(s) used to determine the presence of the targeted pollutant, including the quantification level and the detection level. (YES or NO)

PMP contains a sampling schedule for influent. (YES or NO)

PMP contains a sampling schedule for effluent. (YES or NO)

PMP contains a sampling schedule for sludge. (YES or NO or N/A)

PMP contains an appropriate Trigger or Action Level (concentration) that initiates a specific response. (YES or NO)

PMP contains a response if the pollutant of concern is found at a concentration that equals or exceeds the Trigger or Action Level. (YES or NO)

Response to pollutant detection is to move monitoring point closer towards point of detection. (YES or NO)

Response to pollutant detection is to contact businesses and industries that are known or suspected of discharging the targeted pollutant. (YES or NO)

PMP contains a sampling plan for a Biouptake Study. (YES or NO)

PMP contains a commitment that reasonable cost-effective control measures will be implemented when sources of the targeted pollutant are discovered. (YES or NO)

PMP contains a list of potential (targeted pollutant) sources. (YES or NO)

PMP contains a list of known (targeted pollutant) sources. (YES or NO)

PMP Annual Report(s)

Compare PMP Annual Report with the approved PMP to verify that all proposed activities have been enacted. If the PMP Annual Report covers the second year or more of PMP activities, compare the activities of the current annual report with the previous year. Please note that it is critical that all activities of the PMP are contained in the first annual report to be sure that subsequent annual reports continue to be as complete as possible.

Does the PMP Annual Report contain the provisions listed below (circle the correct response)?

Report contained a description of the facility's internal processes so that any discussion of sampling locations can be understood by the reviewer. (YES or NO)

Sampling was performed as scheduled for influent, effluent, and sludge monitoring. (YES or NO)

Monitoring results from all scheduled sampling are included and contain the quantification level and detection level for each analytical result reported. (YES or NO)

The facility used the approved analytical method(s) with proper quantification level and detection level to determine the presence of the targeted pollutant. (YES or NO)

Report contained results from a biouptake study or an update on progress toward performance of a scheduled biouptake study. (YES or NO)

Report contained actions taken in response to the presence of the pollutant of concern found at or above trigger level. (YES or NO)

Facility performed collection system monitoring to better identify collection system segments with pollutant present. (YES or NO)

Facility initiated control programs at known or suspected non domestic users with the potential to discharge the targeted pollutant. (YES or NO)

Report contained a list of potential (targeted pollutant) dischargers. (YES or NO)

Report contained a list of known (targeted pollutant) dischargers. (YES or NO)

Report contained a summary of the effectiveness of pollutant reduction activities including an estimate of the mass of pollutant eliminated. (YES or NO)

Report contained a summary of proposed actions to be performed in the next year. (YES or NO)

NOTE: The permittee is not in compliance with their NPDES permit if the PMP Annual Report is deficient.

Industrial Pretreatment Program (IPP) Section of the District Checklist
(For POTWs only)

Contact/consult the appropriate IPP District Specialist.

Is the POTW required to have an Industrial Pretreatment Program? (YES or NO) (circle one)

If yes, is the pollutant of concern properly regulated by local limits and/or a reduction plan? (YES or NO)

Are nondomestic users suspected of discharging this pollutant monitored for it? (YES or NO)

If no IPP is required, complete the following:

Does the program describe the legal authority that the POTW intends to use to require nondomestic users to control the pollutant in question? (YES or NO)

If more than one jurisdiction is served, does the legal authority provide for the control of nondomestic users in the entire service area? (YES or NO)
[Note: This is usually included in a Sewer Use Ordinance.]

APPENDIX E

Glossary of Terms

The following are specific terms used in Pollution Minimization Programs (PMPs) and PMP Annual Reports.

"**Action Level**" A specific level that exists in a progressive range of values that, when reached, initiates a specific action or actions.

"**Bioaccumulative Chemical of Concern**" (BCC) means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1,000 derived after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation.

"**Detection Level**" (DL) means the lowest concentration of amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

"**Method Detection Limit**" (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (40 CFR, Part 136, Appendix B) and is determined from analysis of a sample in a given matrix containing the analyte (MDEQ SOP 103 Ver. 1).

"**Minimum Level**" (ML) is defined as the lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specific sample weights, volumes, and cleanup procedures have been employed (EPA Method 1631).

"**Quantification Level**" (QL) means the measurement of the concentration of a contaminant obtained by using specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant (R 323.1205 Definitions; M to Z). (NOTE: The term "Level of Quantification" does not have a specific definition and should not be used at any point during an NPDES process/procedure to describe a minimum concentration that can be quantified or detected.)

"**Reporting Limit**" (RL) the RL is a term used by the MDEQ, and is the quantitation limit used to report data for actual samples (MDEQ SOP 103 Ver. 1).

"**Trigger**" is a term given to one specific point or value in a linear range of progressive points or values whereas, when reached, a specific response or action occurs.

"**Variance**" is defined as described in Part 4. Water Quality Standards Rule 323.1103. The specific reference in R 1103 that pertains to PMPs is listed in R 1103(6)(b) and states that: "That reasonable progress be made in effluent quality toward attaining the water quality standards. If the variance is approved for any BCC, a pollutant minimization program shall be conducted consistent with the provisions in paragraphs (i) through (iv) of R 323.1213(d). The department shall consider cost-effectiveness during the development and implementation of the pollutant minimization program."

"**Water Quality-Based Effluent Limit**" (WQBEL) means an effluent limit developed for an NPDES permit that will ensure that the level of water quality to be achieved by the point source complies with all applicable water quality standards.

APPENDIX F*

United States Environmental Protection Agency
Report #820-B-95/001
March 1995

Water Quality Guidance for the Great Lakes System:
Supplementary Information Document (SID)

***Please see your supervisor for a hard copy of this appendix.