DEQ

WATER BUREAU
POLICY AND PROCEDURES

NUMBER:	**WB-011**
SUBJECT:	**PROCEDURE FOR REVIEW OF POLLUTANT MINIMIZATION PROGRAMS AND ANNUAL REPORTS**
EFFECTIVE DATE:	**OCTOBER 15, 2007** **PAGE: 1 OF 10**
REVISION DATE:	(5-YEAR REVIEW FREQUENCY)

ISSUE:

Pollutant Minimization Programs (PMP) as described herein are designed to identify and remove or reduce sources of toxic substances in order to meet a water quality-based effluent limit (WQBEL). Multiple sections may be involved in the review of PMPs and annual reports required by the PMP. This procedure describes the review process, the responsibilities of each organizational unit involved in the review, and the decision-making process.

AUTHORITY:

Part 31 of 451, specifically 324.3112
Part 21 Rules
Part 8 Rules, Rule 1213
Part 4 Rules, Rule 1103

DEFINITIONS:

"**Action Level**" means a specific level 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.

"**Quantification Level**" (QL) means the measurement of the concentration of a contaminant obtained by using a 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 a National Pollutant Discharge Elimination System (NPDES) process/procedure to describe a minimum concentration that can be quantified or detected.)

"**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 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

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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.

POLICY:

Introduction

PMPs, as described herein, are designed to identify and remove or reduce sources of toxic substances in order to meet a WQBEL. Described in the Part 8 Rules, Rule 1213(1)(d), these special conditions are part of specific NPDES permits or an equivalent document and require the permittee to "...develop and conduct a 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." A PMP is also required as a permit condition when the Water Bureau (WB) authorizes a variance from a water quality standard for a BCC that is the basis for a WQBEL in accordance with Rule 1103 of the Part 4 Rules.

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 WB district supervisor (either the district supervisor or the assistant district supervisor), the permittee is required to implement the PMP and provide annual updates that document progress toward achieving the goal as described in Part (1)(d).

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

- 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.

Rule 1213 allows the department to modify the requirements listed above for the PMP and annual status report on a case-by-case basis. If this is done, the department's decision will be captured in the issued permit.

The permit may also contain requirements for fish tissue monitoring or other biouptake sampling, or both, or facility sludge monitoring to assess the progress of the PMP.

As stated above, PMPs are included in NPDES permits when the WQBEL for a toxic substance is below the QL, or when a variance has been granted for a BCC. An example of each of these situations is given below:

- Polychlorinated biphenyls (PCBs) are a class of pollutants that have a QL well above the WQBEL. A PMP will be required in accordance with Rule 1213 when a facility has been identified as potentially discharging PCBs above the WQBEL.
- Mercury (a BCC) has a QL that is below the WQBEL. When a variance has been authorized through issuance of a permit, then a PMP will be required in the permit in accordance with Rule 1103.

When a PMP is included in the issued NPDES permit, a date (or deadline) may also be included by which time the permittee must submit a PMP to the appropriate district supervisor, if the PMP has not already been approved. Upon receipt of the draft PMP, the district compliance staff will distribute the proposed document for review in accordance with the PMP Review and Approval Process section below. Each entity will then have an opportunity to provide comments related to the expertise of that organizational unit. These comments are then communicated back to the district compliance person for review and ultimately to the district supervisor who 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 Appendix A. These elements include:

- **An annual review and semiannual monitoring of potential sources of the toxic substance**. PMPs for Publicly Owned Treatment Works (POTW) may include a list of commonly known potential sources (such as hospitals and dentist offices), as well as a specific business and industry, while PMPs involving industrial dischargers should include review of the potential sources from internal plant processes or other areas that may contribute contaminated water to the treatment system. The initial PMP may not identify sources but instead may only indicate that sources will be identified. The annual update will then include what sources they have identified.

  Monitoring of potential sources does not mean all potential sources have to be monitored semiannually. In determining which sources to sample, consideration should be given to the number of sources, magnitude of pollutant load of each source, resources of the regulated entity, etc. Main trunk lines of the POTW collection system may be sampled and used to determine where to focus efforts. Decisions and the reasoning to support decisions not to sample all potential sources should be documented in the annual report.

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In some cases, it may be necessary in a PMP to aggregate potential sources of a pollutant and subsample within the aggregation. An exception to this would be those facilities determined to have the potential to discharge the pollutant that are considered Significant Industrial Users (SIU) under an industrial pretreatment program (IPP). Semiannual self-monitoring and annual POTW monitoring is required for all SIUs.

Avenues other than direct sampling of each potential source may be more productive toward eliminating wide-spread sources, such as information and education campaigns or developing a local ordinance that requires specific action (such as controlling wastes from dentist offices).

- **Quarterly monitoring for the toxic substances in the influent to wastewater treatment systems (for systems with wastewater treatment systems).**

- **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:

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

The PMP should specify approved analytical methods with an appropriate QL. PMPs for mercury will generally specify United States Environmental Protection Agency Method 1631 for final effluent and influent testing. Other approved methods for mercury may be appropriate for up-the-pipe sampling as the permittee screens for sources of mercury to their system. If analytical methods with higher QLs do not result in progress, then methods with lower QLs should be used.

The permit requires the permittee to submit a PMP that is designed to reduce effluent concentrations of the pollutant toward the goal of achieving the WQBEL. The permit also requires the permittee to implement reasonable cost-effective measures and to report on all actions taken to reduce or eliminate identified sources. Although not specifically required by the permit, the use of pollutant-specific action levels is one tool that can be used to accomplish this. The permittee may propose other methods that meet these permit requirements.

A pollutant-specific action level invokes a specific response and is clearly identified in the PMP in conjunction with other monitoring activity by the permittee. This specific response should move the permittee towards the identification and reduction or elimination of the source of the toxic pollutant. Action levels may need to be initially adjusted upward or downward based on actual sampling results. It is expected that as the PMP progresses, action levels would drop.

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 the PMP goal. Therefore, it is important that

the reviewer continually question how individual PMP activities or monitoring data are used to identify and 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 to review the comments, require changes or the correction of deficiencies where appropriate, and eventually approve each PMP. Once approved, the permittee is required to implement the PMP as part of their NPDES permit. Significant changes to the original program must be submitted by the permittee to the appropriate district supervisor for approval.

When reviewing new PMPs, if the minimum requirements specified by Rule 1213 for a PMP are met, the PMP should be approved to minimize delays in requiring the permittee to implement the PMP. Approval can be unconditional or it can be approved with comments. If approved with comments because of minor deficiencies, inform the permittee of these deficiencies and indicate that they should be addressed. If the permittee fails to address these issues and fails to demonstrate adequate progress over the course of the permit, other avenues are available to force the permittee to address these deficiencies, such as adding specific language in the permit to address the deficiencies or taking enforcement action for failure of the permittee to move toward the goal of achieving the WQBEL.

Revisions to the PMP may be required as a facility makes progress in identifying and removing/minimizing sources of the pollutant. Approval by the district supervisor is required prior to implementation of **significant** PMP revisions. Review of proposed revisions may include input from Surface Water Assessment Section (SWAS) and IPP staff as appropriate.

PMP - Annual Report Review

Annual PMP reports are submitted to the appropriate district supervisor within one year after the PMP is approved (by the date specified in the permit). The annual report is intended to describe the status (progress that may include successes or failures) of the PMP. The district compliance person will obtain input from others as needed in accordance with the PMP Review and Approval Process section. All annual reports must contain the following, pursuant to Rule 1213:

A. **All PMP monitoring results for the previous year**. All data that were collected during the past year (influent, effluent, and data collected from potential sources) should be included with the annual report. Sampling dates, method of analysis, QL used, proper units, and the laboratory name should all be clearly identified for review purposes. A map of the collection system may be used to show sampling locations and aid in the explanation of actions taken by the permittee.

B. **A list of potential sources of the toxic substance.** This list may include the potential sources that were identified by the program, as well as a list of new potential sources that have been identified as a result of monitoring data. Decisions and the reasoning to support decisions not to sample all potential sources should be documented in the annual report.

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 toward 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...," with no other action indicated is not acceptable. The permittee should propose some action that moves the permittee toward the PMP goal, whether it be sampling at other locations or times, a change to the analytical methods to one with a lower QL, etc.

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 can be provided. While it may be possible for some permittees to use this report format verbatim, district compliance staff are encouraged to use this report example as a guide to help each permittee meet the requirements of the PMP annual report.

It is important to note that as a facility progresses toward locating and removing/minimizing sources of contamination, deviations from the original program will occur. This is to be expected as monitoring data may lead to the need for additional sampling 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 from the permittee to the district supervisor, separate from the annual PMP report. Significant changes require approval of the district supervisor prior to implementation.

As stated above, it is the responsibility of the district compliance person to conduct the review of the PMP annual report. Review of the annual report may include input from SWAS and IPP staff as appropriate. Checklists have been developed to standardize the review process and clearly identify roles and responsibilities in the review process. The SWAS review checklists are provided in Appendix C. District review checklists are provided in Appendix D.

REFERENCE TO BUREAU PROGRAMS:

Each policy shall indicate a reference to the programs impacted by the policy. The programs selected shall be from the list below.

Bureau programs:

NPDES (non-storm water) Program	Storm Water Program (NPDES)

METHOD OF DISTRIBUTION:

Intranet, Procedure Manuals

PROCEDURE: **PMP Review and Approval Process**

The PMP review and approval process below starts after issuance of the NPDES permit:

Responsibility		**Action**
Permittee	1.	The permittee drafts (or potentially modifies) and submits a PMP to the Water Bureau (WB) district supervisor within the time frame specified in their NPDES permit.
District compliance staff	2.	District staff determine the level of review and whether input from other organizational units is necessary. In addition to a review by the district compliance staff, all new PMPs should be reviewed by the SWAS, and by the district IPP staff if the permittee is a POTW. Revisions to Mercury PMPs should be reviewed in accordance with Table 1 below. Revisions to other types of PMPs (those with WQBELs below the QL) should be reviewed in accordance with the following: o **When effluent concentration is reported above quantification**: The permittee is out of compliance with the permit. PMP revisions require full review by the district and SWAS (and Permits Section [PS] if it involves treatment technology issues or limits). o **When effluent concentration is reported below quantification:** The permittee is in compliance with the permit if they are also implementing their approved PMP. PMP revisions require limited review by district staff to make sure it appears appropriate and the permittee is not backing off the minimization program.
District compliance staff (and if appropriate SWAS staff, IPP staff, etc.)	3.	If appropriate, district compliance staff distributes the PMP for comment. Consider distributing 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 back to the district compliance person.
District compliance staff	4.	The district compliance staff completes their review on the facility's PMP and the comments provided by others, and provides recommendations to the district supervisor.

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District supervisor or assistant district supervisor	5.	Within 60 days of receipt of the PMP, the district supervisor determines whether the PMP is approvable or inadequate. a. If the district supervisor determines that the PMP is inadequate because it does not meet minimum requirements, a letter is sent informing the permittee of the program's inadequacies. The permittee must then resubmit an approvable PMP, generally no more than 60 days from the date of the letter. District staff should use an enforcement response for grossly deficient PMPs or when permittees refuse to correct the PMP to meet minimum requirements. District staff again coordinate WB review of resubmitted PMPs as necessary. **ALL REASONABLE ATTEMPTS SHOULD BE MADE TO APPROVE A PMP IN A TIMELY MANNER SO THAT THE PERMITTEE IS REQUIRED TO IMPLEMENT THE PMP. THIS MAY RESULT IN PMPS BEING APPROVED THAT ARE LESS THAN OPTIMAL BUT THAT MEET THE MINIMUM REQUIREMENTS.** b. If the PMP is determined to be acceptable, the district supervisor sends the permittee a PMP approval letter.
Permittee	6.	Once a PMP is approved, the permittee implements the PMP. The permittee submits an annual PMP report to the District Supervisor.
District compliance staff (and if appropriate SWAS staff, IPP staff, etc.)	7.	District staff determines the level of review and whether input from other organizational units is necessary. Annual reports for mercury PMPs should be reviewed in accordance with Table 1 below. Annual reports for other types of PMPs (those with WQBELs below the QL) should be reviewed in accordance with the following: • **When effluent concentration is reported above quantification**: The permittee is out of compliance with the permit. A detailed review of the PMP annual report is required by district staff. The SWAS and/or the PS should be consulted on issues where their expertise is required. • **When effluent concentration is reported below quantification:** The permittee is in compliance with the permit if they are also implementing their approved PMP. A moderate level review by district staff is required to ensure that permittee continues to implement actions toward meeting the WQS.

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If appropriate, district compliance staff distributes the annual report for comment. Consideration should be given to distribute the annual report to other divisions or agencies when remediation or other issues may be relevant to the annual report. Each participating entity has 45 days to submit their respective annual report review comments back to the district compliance person.

District compliance staff

8. The district compliance staff completes their review on the permittee's annual report and the comments provided by others and provides recommendations to the district supervisor. Comments should be summarized as a response from the WB (comments from other reviewers should not be forwarded directly to the permittee).

District supervisor

9. A summary of department comments should be communicated to the permittee within 60 days of the annual PMP report submittal (with blind copy to all those that provided comments in the review process).

Table 1

Mercury Levels	**Review and approval process for revisions to PMPs that were previously approved**	**Annual Report Review**
Effluent concentration <5 ng/l and in compliance with the level currently achievable (LCA)	Limited cursory review by district staff to make sure it appears appropriate (permittee is not backing off program). No involvement by SWAS. Approve if adequate.	Cursory review (including the summary of results and actions) by district staff only, then file (rules require submittal of annual report, it doesn't require our review)

Mercury Levels	Review and approval process for revisions to PMPs that were previously approved	Annual Report Review
Effluent concentration =>5 ng/l and <10 ng/l and in compliance with the LCA	District determines effluent concentration trend over the last couple of years. • If trend is decreasing, then handle as above (<5 ng/l). • If trend is flat or increasing, then as below (=>10 ng/l). Approve if adequate.	District determines effluent concentration trend over the last couple of years. • If trend is decreasing, then cursory review (including the summary of results and actions) • If trend is flat or increasing, then detailed district review. No SWAS involvement in review unless expertise is needed on a specific issue.
Effluent concentration =>10 ng/l or in noncompliance with the LCA	Full review by district and SWAS (and PS if it involves treatment technology issues or limits). Approve if adequate.	Detailed district review. No SWAS involvement in review unless expertise is needed on a specific issue.
New PMP requirements imposed in permit	Full review by district and SWAS (and PS if it involves treatment technology issues or limits). Approve if adequate.	Review annual reports as described above based on available data.

APPROVED: _____ DATE: 10/12/07
Richard A. Powers, Chief
Water Bureau

LAST REVIEWED BY: _____ DATE: _____
Name
Title

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APPENDIX A

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

Submitted on (date)

The following is an example for Water Bureau staff of a basic 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 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. Influent samples will consist of a (grab/composite) that will be analyzed at an appropriate QL using an approved U.S. Environmental Protection Agency (USEPA) method, approved alternative test method, or permit specified method.

   When (pollutant) is found (include an 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, action levels for this alternative sampling data may be inserted here).

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

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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 above action levels (list QL if less than the WQBEL or action level here), the following actions will be initiated:

   Provide a list of activities that describe the response when the pollutant is quantified 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 an action level, should be accepted as a last resort, as this action, by itself, does not necessarily move the permittee toward 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 toward reduction or elimination of source(s).

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

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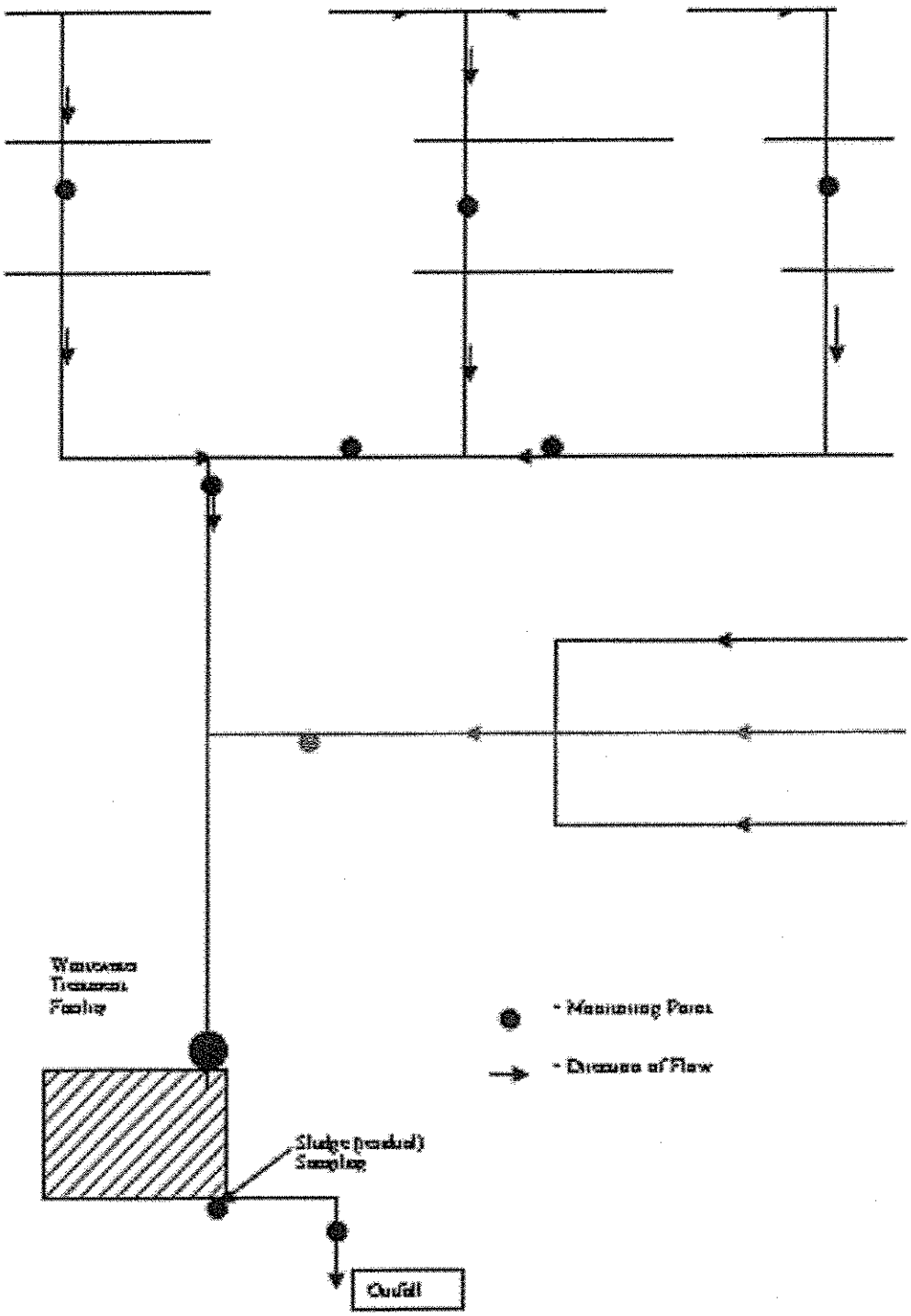

Figure 1. (Name of Community POTW) wastewater collection system indicating direction of influent flow and potential sampling locations.

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

Submitted on (date)

The following is an example for Water Bureau staff of a basic 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 PMP for (Permittee name 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 QL using an approved USEPA method, approved alternative test method, or permit specified method.

   (Optional – 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 action level here for these specific types of monitoring).

   To aid in the review of this program, a sufficiently 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).

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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 above action or trigger levels (list QL if less than the WQBEL; or an action level here), the following actions will be initiated:

   Provide a list of activities in response to pollutant quantified 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 action level, should be accepted as a last resort, as this action, by itself, does not necessarily move the permittee toward 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 toward 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 toward removal of source(s).

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

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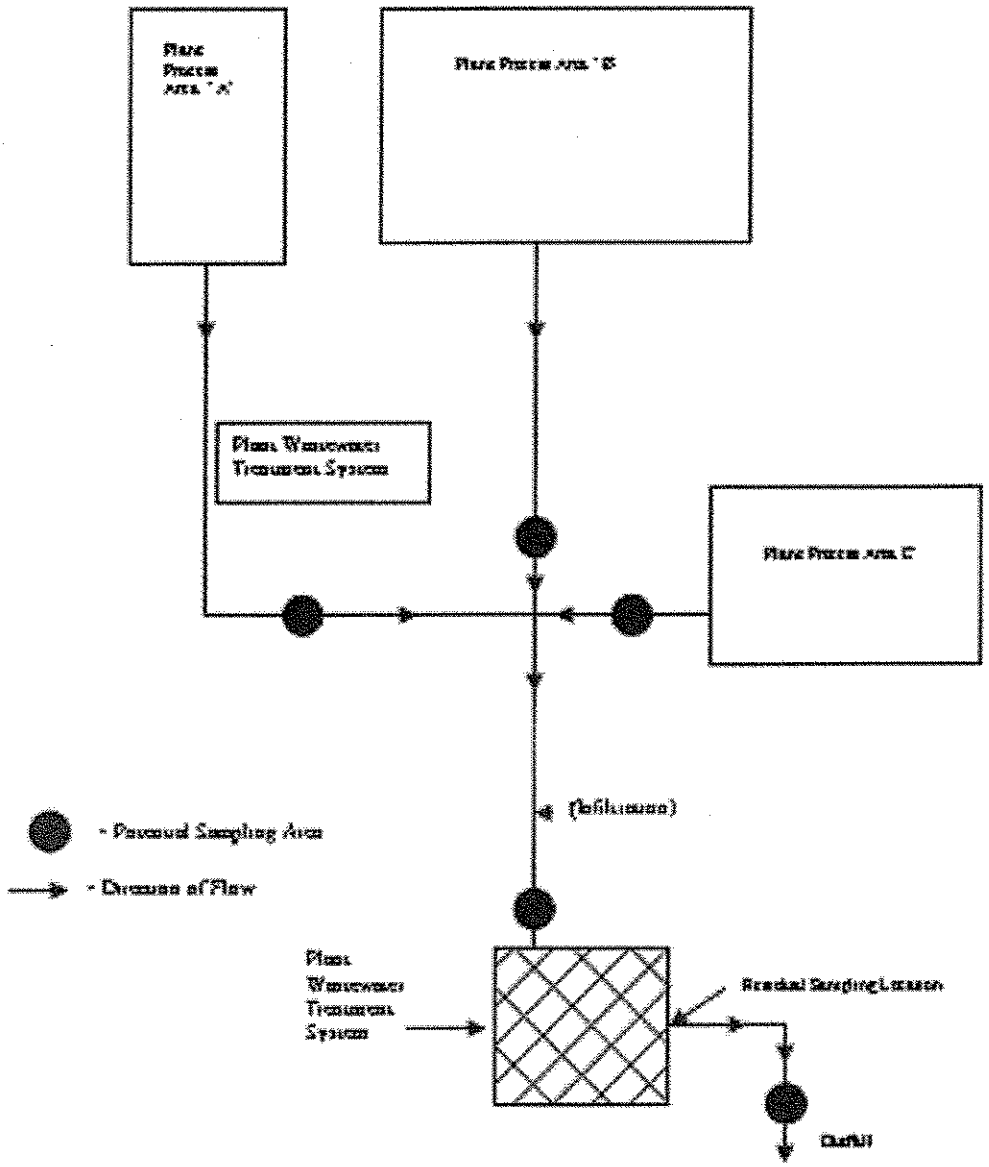

Figure 1. (Name of facility) wastewater collection system indicating direction of influent flow and potential sampling locations.

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APPENDIX B

Pollution Minimization Program (PMP)
(Suggested) Annual Report Format

Submitted on (date)

The following is an example for Water Bureau staff of the basic format for a 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.

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	

Attach analytical sample results from all monitoring performed at known sources of contamination. Include detection limit and quantification limit information. If all known sources were not monitored, explain why.

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	

Attach analytical sample results (if available). Include detection level and QL information. If all potential sources were not monitored, explain why.

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. Were the actions consistent with the approved PMP? If pollutant-specific action levels are part of the approved PMP, were these sufficient to drive the continuing reduction of the pollutant?

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.

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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.

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APPENDIX C

Surface Water Assessment Section

Initial Pollutant Minimization Program Review for:

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

The sampling locations are clearly identified. 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 plan(s) for a Biouptake Study (if required). YES or NO or N/A

PMP contained appropriate actions levels (concentrations) for the targeted pollutant.
(YES or NO or N/A) *"Appropriate" is going to be facility-specific depending on local limits, removal efficiency of the treatment system, etc.*

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

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PMP Annual Report - Initial Review Checklist

PMP Annual Report contained a description of the analytical method(s) and appropriate QL(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 action levels (concentrations) for the targeted pollutant. YES or NO or NA

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

Sampling results indicated the presence of (pollutant) at or above the QL. 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.

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

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APPENDIX D

District Checklist

Pollution Minimization Program Review

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

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

Required Elements (review the permit for specific requirements):

- **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.**

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

PMP contains an annual review of potential sources. YES or NO

PMP contains semi-annual monitoring of potential sources. YES or NO

PMP contains quarterly sampling of the influent if there is a wastewater treatment system. YES or NO or NA

PMP contains a sampling schedule for sludge if required by the permit. YES or NO or N/A

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

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 an annual status report. YES or NO

The goal of the Pollutant Minimization Program is to maintain the effluent concentration at or below the WQBEL. The permittee's PMP as a whole is designed to proceed toward the goal. YES or NO

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Other non-required PMP elements (these elements are not required, but including them may provide a better understanding of how the permittee is complying with the PMP requirements):

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

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

Response to pollutant monitoring in collection system is to move the permittee toward identification of sources. 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 list of potential targeted pollutant sources. YES or NO

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

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PMP Annual Report(s) (circle the correct response)

In accordance with this policy, the review of the annual report may be more cursory in nature if certain requirements are met. In this case, the reviewer should be aware of the elements detailed below when reviewing the annual report, but it is not required to document each item using this checklist.

If a detailed review is appropriate in accordance with this policy, then compare the 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.

Required Elements (review permit for specific requirements which may be different):

- **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.**

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

Monitoring results from all scheduled samplings are included and contain the QL for each analytical result reported. YES or NO

The facility used the approved analytical method(s) with proper QL 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 or NA

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 contains a summary of all *actions taken* to reduce or eliminate the identified sources of the toxic substances. These actions moved permittee toward the goal of the PMP. YES or NO

Other Annual Report Elements (these elements are not required, but including them may provide a better understanding of how the permittee is complying with the PMP requirements).

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

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

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

For POTWs, facility initiated control programs at known or suspected nondomestic users with the potential to discharge the targeted pollutant. YES or NO or NA

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

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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.]

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