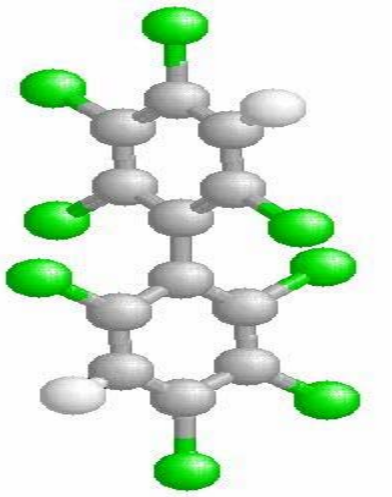
RECOMMENDED OUTLINE FOR POLLUTANT MINIMIZATION PLANS FOR POLYCHLORINATED BIPHENYLS FOR SANITARY WASTEWATER TREATMENT PLANTS, PUBLICLY OWNED TREATMENT WORKS, AND INDUSTRIAL DISCHARGERS



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Division of Water Quality

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SECTION A
INDUSTRIAL DISCHARGERS

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1. Discharger / Facility Contact

This section includes the name and contact information for an individual who will serve as the facility contact for information concerning the PMP. The contact should be both knowledgeable of the effort and authorized to direct and implement specific pollutant minimization activities.

2. Facility Description

This section provides a description of the facility relevant to pollutant minimization, including the following:

- company and facility name and address, including any parent companies or onsite subsidiaries;
- raw materials and industrial processes used, and products generated that either contain the PCBs or that may be related to the generation or release of the PCBs and their sources;
- for facilities accepting non-facility wastes, a description of all such wastes;
- a map showing the facility location and the locations of all point and nonpoint source releases from the facility or site and a description of such releases;
- all local, state and federal discharge permits and permit numbers for permits that relate to releases of the pollutants; and
- receiving stream for all discharges.

3. Known Sources

This section includes descriptions of PCB sources known to be contributing to the facility's overall PCB load to the receiving water, and probable sources where releases are likely but not confirmed. Known and probable sources include all materials, equipment, processes, soil areas or sediment areas within a facility, site, or service area, from which the pollutant is released directly or indirectly into a wastewater treatment system, sewage collection system, stormwater collection system, stream or river. This section should include a description of the pathways if known and a site map or collection system map showing location of known sources and pathways.
Known and probable sources should include PCBs detected using Method 1668A. Facilities should not limit known and probable sources to high concentration matrices. Known and probable sources could include, but would not necessarily be limited to, the following:

- Use, storage, or processing of transformers;
- Use, storage, or processing of hydraulic equipment;
- Use, storage, or processing of raw materials or finished products, including bulk liquids;
- Process water sources;
- Sediment in piping systems still impacted by legacy PCB use or discharge; and
- Spills, leaks, and remedial activities (current or legacy) potentially contributing PCB loading.

This section should not include a detailed discussion of each and every occurrence of industrial equipment and materials, but rather should be a concise focused description of likely PCB sources. This section should also include an estimate of the pollutant mass present, if known.

4. Potential Sources

This section describes any material, equipment, process, soil area, sediment area or facility on the site known to contain or generate PCBs, but not deemed a source because it is not known to be releasing the pollutant or because no pathway to surface water or groundwater has been identified. This section should also include an estimate of the PCB mass present, if known.

This section may not be applicable to every facility. Specifically, where sources and a remedial course of action are well established, investigation for unknown sources may not apply.

5. Previous Minimization Activities

This section describes previous, ongoing or planned pollutant minimization activities underway or to be undertaken voluntarily or in accordance with a federal or state

requirement. This section may include PCB pollutant minimization activities completed or initiated after the initial PCB sampling was performed, which may potentially result in a facility PCB load which is currently lower than the load estimated from the data. This section should include the level of pollutant reduction targeted, the level of pollutant reduction attained, measures completed, measures underway, and the schedule for planned activities. This section will allow facilities to highlight PCB reduction efforts already completed.

6. Pollutant Minimization Measures

This section includes descriptions of measures to be taken to achieve the maximum practicable reduction of discharges to the air, soil, and water. Maximum Practical Reduction is defined as:

> "the maximum degree of reduction in releases of the pollutant to the air, soil and water (including elimination of such releases where achievable), taking into account economic and technological feasibility and any new environmental impacts that would result, that is achievable for a given site or facility through the application of equipment, technology, process or procedure modifications; reformation or redesign of products; substitution of raw materials; or changes in management practices, materials handling, inventory control, or other general operational phases of the site or facility, either alone or in combination. If the pollutant is present within a site or facility but is contained, maximum practicable reduction includes the implementation of measures to prevent its future release. For municipal wastewater treatment plants, maximum practicable reduction shall include system trackdown and analysis and may include, among other things, reductions achieved through education and outreach and coordination with other local, state, and federal regulatory agencies".

6.1. Actions to Minimize Known and Probable Sources

Minimization activities could include, but would not necessarily be limited to, the following:

- Removal of PCB containing material, including residuals, stored on-site;
- Engineering controls (such as caps and containment dikes);
- Fluid changeout;
- Modifications to industrial processes that include or result in PCBs;
- Substitutions of or modifications to raw or finished materials;
- Modifications to material handling;
- Discharge stream separation so as to isolate a stream containing PCBs;
- Discharge minimization aimed at overall PCB mass load reduction;
- Add / enhance / modify pre-treatment;
- Remedial activities for spills and leaks (current or legacy). Include the facility spill control plan;
- Piping system cleanout; and
- Routine inspection of the facility, especially during storm events where stormwater is a

major contributor of PCBs.

6.2. Actions to Identify and Control Potential Sources

This section describes the activities proposed for tracking down and identifying potential sources contributing to the facility's PCB load to the receiving waters. This section should include a description of any sampling and analytical methods (including detection limits and data quality objectives) to be used for trackdown and identification.

For industrial dischargers, the strategy for identifying potential sources may include, but not be limited to, investigations of industrial processes or equipment similar to those known to have generated the pollutant elsewhere; investigation of historic activities on the site; or investigation of possible soil or sediment contamination or stormwater management system contamination as a result of historic or ongoing activities.

7. Source Prioritization

This section includes prioritization of known and potential sources, either individually or in categories, from most to least significant, on the basis of available information. Factors to be considered in prioritizing known sources include, but are not limited to, available information on pollutant mass (or volume of the discharge and concentration of the PCBs), and likelihood of release into the receiving waters. Factors to be considered in prioritizing potential sources include, but are not limited to, current or past industrial activity, presence and type of equipment containing PCBs, waste management activities and overall condition of the site and facilities.

8. Measuring, Demonstrating, and Reporting Progress

The key factor for determining whether or not the pollutant minimization approach is successful will be the measurement and demonstration of reduced PCB loads over time. This section includes a description of how progress in PCB pollutant minimization will be tracked and documented over time. Measuring and demonstrating progress is not limited to end of pipe load reductions but could also include mass and impact reductions from various sources and minimization or elimination of pathways.

8.1. Sampling and Analytical Approaches

At a minimum, direct effluent sampling using Method 1668A at the frequency specified in the NJPDES/DSW permit is required. Facilities already performing direct effluent sampling using 1668A for any other reason, such as to satisfy a NJPDES requirement, may utilize those results to satisfy the PMP requirements.

For some facilities, analytical uncertainties may mask effluent reductions. In these instances, Method 1668A should be supplemented with alternative approaches to estimating a baseline load and subsequent reductions. Alternative approaches include, but are not limited to, the following:

• Demonstrating concentration reductions in waste streams prior to treatment;
• PISCES effluent sampling;
• Estimating the PCB mass removed from the site / system;
• Demonstrating reductions in a surrogate parameter such as solids or organic carbon; and
• Reducing effluent volumes (if likely to reduce PCB mass).

8.2. Estimated Baseline Load

The PMP must include an estimate of the facility baseline loading of PCBs to surface water in units of grams/year. The baseline loading should be the summation of all loads from all facility sources and pathways prior to initiation of pollutant minimization activities. Effluent data from PCB monitoring as part of a NJPDES/DSW permit shall be summarized and reported in this section.

As described in the previous section, alternative sampling methods may be used to supplement effluent measurements using Method 1668A. If an alternative approach is used, the corresponding baseline load in grams/year and any subsequent reductions must be computed. The PMP should also include a description of how that baseline was calculated. Baseline loads may include estimated loads taking into account a variety of sources and pathways.

8.3. Anticipated Reductions to Baseline Load

This section should include an estimate of the PCB load reductions anticipated from proposed pollutant minimization activities and a description of how the estimate was made.

8.4. Continuing Assessment

This section describes the plan for monitoring the actual load on an ongoing periodic basis, and comparing that load to the baseline and the estimated load reductions described in the previous sections.

This section includes a requirement for an annual report. The first report shall be submitted 12 months after the submittal of the initial PMP. Subsequent reports shall be each following year documenting how elements of the minimization plan were accomplished and comparing baseline and subsequent PCB mass loadings. The annual report should also indicate any changes to the facility's operation, site boundary, service area or waste streams during the preceding year that might affect releases.

9. Certification by Preparer

The following must be submitted with the PMP:

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

Signature for Applicant: _____ Print or Type: Name: _____

Date: _____ Print or Type: Position: _____

SECTION B
SANITARY WASTE WATER TREATMENT PLANTS AND PUBLICLY OWNED TREATMENT WORKS

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1. Facility Contact

This section includes the name and contact information for an individual who will serve as the facility contact for information concerning the PMP. The contact should be both knowledgeable of the effort and authorized to direct and implement specific pollutant minimization activities.

2. Facility Description

This section provides a description of the facility relevant to pollutant minimization, including the following:

- Facility name and address;
- Description and map of the facility's service area;
- Description and map or schematic diagram of the collection system;
- Description of any wastes accepted from outside the collection system (e.g., wastes trucked or transported by rail to the collection system for treatment);
- Map of all point and non-point source releases from the facility or site and description of the nature of such releases;

- All local, state and federal permits and permit numbers for permits that relate to releases of the pollutants;
- Receiving stream for all discharges;
- A list of all known industrial users of the collection system and pretreatment permit numbers.

3. Known Sources

This section includes descriptions of PCB sources known to be contributing to the facility's overall PCB load to the receiving water, and probable sources where releases are likely but not confirmed. Known and probable sources should include PCBs sampled using Method 1668A. Permittees should not limit known and probable sources to high concentration matrices.

Known and probable sources at the treatment plant could include, but would not necessarily be limited to, the following:

- Use, storage, or processing of transformers;
- Use, storage, or processing of hydraulic equipment;
- Use, storage, or processing of legacy sludges;
- Use, storage, or processing of treatment chemicals and additives, such as flocculants, or chemicals formed under high temperature chlorination;
- Use or storage of raw materials or finished products, including bulk liquids;
- Spills, leaks, and remedial activities (current or legacy) potentially contributing PCB loading.

This section should not include a detailed discussion of each and every occurrence of industrial equipment and materials, but rather should be a concise focused description of likely on-site PCB sources.

Known and probable sources in the collection system may include, but are not necessarily limited to, the following:

- Indirect dischargers with known or historic PCB discharges;
- Combined sewer areas serving known or historic PCB waste or spill sites;
  This section should be a concise focused description of likely collection system PCB sources. This section should include a description of the basis for identification as a known and probable source of PCBs.

4. Potential Sources

The intent of this section is to provide information regarding caches of PCB material which could potentially impact the collection system in the future. Information in this section may be the result of database searches or outreach activity. Given the complexity associated with tracking every potential source in a collection system, facilities may

instead focus on a shorter subset of potential sources with a higher perceived likelihood of impacting the collection system.

Potential sources include material, equipment, processes, soil areas, sediment areas, or facilities that are part of the collection system or within the service area, known to contain PCBs, but not deemed a source because no pathway exists. If known, provide an estimate of the mass of PCBs present.

5. Strategy for Identifying Unknown Sources (Trackdown)

This section describes activities associated with tracking PCBs from the plant influent back up through the collection system to identify unknown sources. This section should describe proposed, on-going, and completed trackdown studies, including sampling and analytical methodologies. This section should address CSOs and stormwater runoff from PCB-contaminated sites, if applicable. This section should include a description of the sampling and analytical methods (including detection limits and data quality objectives) to be used for
trackdown and identification. This section should also include a plan for using existing trackdown results to control sources to the collection system.

In some instances, PCB introduction will be beyond the control of the POTW. However, in instances where the POTW becomes aware of a source beyond their ability to control, communication with other regulatory authorities is necessary to ensure that appropriate action can be taken.

6. Previous Minimization Activities

This section describes previous, ongoing or planned pollutant minimization activities underway or to be undertaken voluntarily or in accordance with a federal or state requirement. This section should include the level of pollutant reduction targeted, level of pollutant reduction attained, measures completed, measures underway, and the schedule for
planned activities. This section will allow facilities to highlight PCB reduction efforts already completed.

7. Recommendations for Action Under Other Regulatory Programs

This section describes known or potential sources of PCBs to the collection system that are beyond the control of the permittee. Recommendations for remediation activities under
other regulatory authorities should be included. This section will help establish communication with other regulatory authorities to ensure that appropriate action can be taken.

8. Pollutant Minimization Measures

This section includes descriptions of measures to be taken to achieve the maximum practicable reduction of discharges to the air, soil, and water. Maximum Practical Reduction is defined as:

> "the maximum degree of reduction in releases of the pollutant to the air, soil and water (including elimination of such releases where achievable), taking into account economic and technological feasibility and any new environmental impacts that would result, that is achievable for a given site or facility through the application of equipment, technology, process or procedure modifications; reformation or redesign of products; substitution of raw materials; or changes in management practices, materials handling, inventory control, or other general operational phases of the site or facility, either alone or in combination. If the pollutant is present within a site or facility but is contained, maximum practicable reduction includes the implementation of measures to prevent its future release. For municipal wastewater treatment plants, maximum practicable reduction shall include system trackdown and analysis and may include, among other things, reductions achieved through education and outreach and coordination with other local, state, and federal regulatory agencies".

8.1. Actions to Minimize Known and Probable On-Site Sources

This section includes a detailed description of the actions proposed to minimize the impact of known and probable on-site (treatment plant) sources of PCBs identified in previous
sections. Minimization activities could include, but would not necessarily be limited to, the following:

- Removal;
- Engineering controls (such as caps and containment dikes);
- Fluid changeout;
- Substitutions / modifications of raw or finished materials used in the treatment process;
- Modifications to material handling including transport; and
- Remedial activities for spills and leaks (current or legacy).

This section should include an estimated schedule for completion of each of the minimization activities.

8.2. Actions to Minimize Known and Probable Collection System Sources

This section includes a detailed description of the actions proposed to minimize the impact of known and probable collection system sources identified in previous sections. Minimization activities could include, but are not necessarily limited to, the following:

• Indirect Discharge Permit review and amendment;
• Recommendations for improved and upgraded industrial pre-treatment;
• Remedial activities for spills and leaks (current or legacy); and
• Recommendations for remediation by other agencies under other regulatory programs;
• Exploration of hydraulic controls to minimize PCB mass loads through CSOs.

This section should include an estimated schedule for completion of each of the minimization activities.

8.3. Actions to Identify and Control Potential Sources

This section describes the activities proposed for controlling potential sources contributing to the facility's PCB load to the receiving water identified as part of trackdown.

9. Source Prioritization

This section includes prioritization of known and potential sources, either individually or in categories, from most to least significant, on the basis of available information. Factors to be considered in prioritizing known sources include, but are not limited to, available information on pollutant mass (or volume of the discharge and concentration of the PCBs), and likelihood of release into the receiving waters. Factors to be considered in prioritizing potential sources include, but are not limited to, current or past industrial activity, presence and type of equipment containing PCBs, waste management activities and overall condition of the site and facilities.

10. Measuring, Demonstrating, and Reporting Progress

The key factor for determining whether or not the pollution minimization approach is successful will be the measurement and demonstration of reduced PCB loads over time. This section includes a description of how progress in PCB pollutant minimization will be tracked and documented over time. Measuring and demonstrating progress is not limited to end of pipe load reductions but could also include mass and impact reductions from various sources and minimization or elimination of pathways.

10.1 Sampling and Analytical Approaches

At a minimum, direct effluent sampling using Method 1668A at the frequency specified in the permittee's NJPDES/DSW permit is required. Facilities already performing direct effluent sampling using 1668A for any other reason, such as to satisfy a NJPDES requirement, may utilize those results to satisfy the PMP requirements.

For some facilities, analytical uncertainties may mask effluent reductions. In these instances, Method 1668A should be supplemented with alternative approaches to estimating a baseline load and subsequent reductions. Alternative approaches may

include, but are not limited to, the following:

- Demonstrating concentration reductions in waste streams prior to treatment;
- PISCES effluent sampling;
- Estimating the PCB mass removed from the site / system;
- Demonstrating reductions in a surrogate parameter such as solids or organic carbon; and
- Effluent volume reductions (if likely to reduce PCB mass).

10.2 Estimated Baseline Load

The PMP must include an estimate of the facility baseline loading of PCBs to surface water in
units of grams/year. The baseline loading should be the summation of all loads from all facility sources and pathways prior to initiation of pollutant minimization activities. Effluent data from PCB monitoring as part of a NJPDES/DSW permit shall be summarized and reported in this section.

As described in the previous section, alternative sampling methods may be used to supplement effluent measurements using Method 1668A. If an alternative approach is used, the corresponding baseline load in grams/year and any subsequent reductions must be computed. The PMP should also include a description of how that baseline was calculated. Baseline loads may include estimated loads taking into account a variety of sources and pathways.

10.3 Anticipated Reductions to Baseline Load

This section should include an estimate of the PCB load reductions anticipated from proposed
pollutant minimization activities and a description of how the estimate was made.

10.4 Continuing Assessment

This section describes the plan for monitoring the actual load on an ongoing periodic basis, and comparing that load to the baseline and the estimated load reductions described in the previous sections.

This section includes a requirement to submit an annual report. The first report shall be submitted 12 months after the submittal of the initial PMP and annually each following year. The report shall document how elements of the minimization plan were accomplished and comparing baseline and
subsequent PCB mass loadings.

11. Certification by Preparer

The following must be submitted with the PMP:

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

Signature for Applicant: _____ Print or Type: Name: _____

Date: _____ Print or Type: Position: _____