CHAPTER 4
PHASE II PERMITTING

This chapter provides the permit writer with guidance related to developing and issuing the Phase II permit. It also discusses the review and evaluation of documentation that should generally be required by the Phase I permit.

4.1 PHASE II PERMIT PROCESS

The primary objective of the Phase II permit should be to require the permittee to implement the selected combined sewer overflow (CSO) controls in the long-term control plan (LTCP) that will meet Clean Water Act (CWA) requirements. After the permittee has completed the development of the LTCP and has discussed and coordinated the selection of the necessary CSO controls with the permit writer, the State water quality standards (WQS) authority, and the public, the permit writer can embody the selected CSO controls into the Phase II permit.

To be consistent with the CSO Control Policy, the Phase II permit should generally contain provisions that:

- Require the permittee to continue implementing the nine minimum controls (NMC)
- Direct the permittee to implement and properly operate and maintain the selected CSO controls from the LTCP
- Require the permittee to implement a post-construction water quality monitoring program
- Require the permittee to periodically reassess overflows to sensitive areas where elimination or relocation was not feasible
- Authorize the National Pollutant Discharge Elimination (NPDES) permitting authority to reopen and modify or revoke and reissue the permit when the CSO controls do not result in attainment of WQS.

The permit writer should coordinate the development of the Phase II permit with the permittee and the State WQS authority to ensure that statutory and regulatory requirements are met. The permit writer should also ensure that the general public is involved in the decision-making process leading to finalization of the Phase II permit conditions through the public notice provisions of the NPDES permit regulations or the equivalent provision in approved NPDES State permit issuance programs.

In drafting the Phase II permit, the permit writer should work closely with the permittee and the State WQS authority in reviewing the CSO control alternatives presented in the LTCP. The permit writer should ensure that the permittee has shown, using either the presumption or demonstration approach, that the selected CSO controls will provide for the attainment of WQS in the receiving water body.

For the technology-based requirements in the Phase II permit, the permit writer should require continued implementation of the NMC as appropriate. The permittee's documentation may be used to show that the NMC continue to satisfy best available treatment economically achievable (BAT)/best conventional pollutant control technology (BCT) requirements on the basis of the permit writer's best professional judgment (BPJ). The permit writer may choose to modify any or all of the NMC from the Phase I permit to be more site-specific, based on the documentation submitted by the permittee. For the water quality-based requirements in the Phase II permit, the permit writer should require implementation of the CSO controls in the LTCP. The permit writer must document in the fact sheet or statement of basis how the Phase II permit meets the technology-based and water quality-based requirements of the CWA.

4.2 INFORMATION NEEDS

To develop a Phase II permit, the permit writer should rely on information and data that the permittee has submitted in response to Phase I permit requirements. This includes 1) the documentation showing the permittee's implementation of the NMC, 2) the LTCP, including any interim deliverables submitted during the LTCP development, and 3) any other information required by the Phase I permit. In most cases, the permit writer will need this information, at

a minimum, to develop an effective Phase II permit. If this information is not adequate, the permit writer should request additional information from the permittee. Section 3.2 describes available mechanisms for obtaining additional information and data.

4.3 IDENTIFICATION OF CSO OUTFALLS IN THE PERMIT

The locations of all CSO outfalls should have been documented prior to issuance of the Phase II permit. Therefore, the permit writer should specifically identify CSO outfalls in the Phase II permit. Exhibit 4-1 provides example permit language for authorization to discharge from CSO outfalls. The permit writer should evaluate this language carefully to ensure that it is appropriate for the permittee.

Exhibit 4-1. Example Permit Language for Identifying CSO Outfalls in a Phase II Permit

The permittee is authorized to discharge from the outfalls listed below in accordance with the requirements of **[insert appropriate permit sections containing CSO requirements]** and other pertinent provisions of this permit.

Overflow Number	Overflow Outfall Location	Receiving Water Body
[insert number]	**[insert latitude/longitude (street address optional)]**	**[insert receiving water body]**

4.4 NINE MINIMUM CONTROLS

The permit writer should determine whether the permittee's actions to implement the NMC under the Phase I permit are adequate to meet the technology-based requirements of the CWA. This can be accomplished by reviewing the information provided by the permittee during the Phase I permit term (i.e., NMC documentation and the LTCP). Section 4.4.1 discusses recommended evaluation criteria. The Phase II permit should, as appropriate, require continued implementation of the NMC. When preparing the Phase II permit, therefore, the permit writer should develop permit language requiring the continued implementation of the NMC (including site-specific language, as appropriate) and its associated documentation. Section 4.4.2 provides example site-specific permit language.

4.4.1 Review of Permittee's Implementation of the Nine Minimum Controls

As discussed in Section 3.10, the permit writer, in conjunction with other appropriate personnel, should review the NMC documentation for completeness and compliance with Phase I permit requirements. The documentation serves as the basis for the development of technology-based requirements in the Phase II permit, on a BPJ basis reflecting site-specific considerations. If a permit writer determines that certain components are incomplete or not properly addressed by the permittee, then the permit writer should follow up with the permittee in one of two ways. If the permit writer believes that missing or incomplete components are relatively significant and that the permittee has not acted in good faith to submit the documentation, then the permit writer may coordinate with enforcement personnel to initiate an enforcement action for noncompliance with a Phase I permit condition. If only minor components are unclear or incomplete, the permit writer may simply request the missing or incomplete data from the permittee in accordance with the policies and procedures of the NPDES permitting authority (e.g., informal telephone request or formal request letter).

After receiving the completed documentation, the permit writer should evaluate whether the actions already taken or being taken by the permittee are adequate to meet the NMC requirements in the permit. This section recommends some general criteria under which the permit writer can evaluate the adequacy of the permittee's NMC. Because of the site-specific nature of the control measures, these criteria are not all-inclusive but provide a basis for evaluation by the permit writer. EPA's *Combined Sewer Overflows—Guidance for Nine Minimum Controls* contains additional detail on the NMC (EPA, 1995b).

The permit writer should review the NMC documentation using the criteria recommended in the following paragraphs (also provided in checklist form in Appendix C). The permit writer should note that not all the criteria will apply to each permittee. Applicable criteria are based on the control measures implemented by the permittee.

4.4.1.1 Proper Operation and Regular Maintenance Programs for the CSS and CSO Outfalls

When evaluating the permittee's operation and maintenance (O&M) program, the permit writer should consider whether the program:

- Describes the system, including an inventory of all CSO structures, equipment, and treatment facilities. Provides procedures for keeping this inventory current.
- Includes routine inspection, cleaning and maintenance, and repair schedules for all inventoried CSO outfalls, interceptors, regulators, pumping stations, and equipment. Includes schedules and inspection frequencies that are appropriate for the system.
- Includes inspections for dry weather overflows and illicit connections.
- Provides operating procedures and specifications for all equipment, structures, facilities, CSO outfalls, and off-line storage structures. Describes the hydraulic capacities of the collection and treatment systems, the storage capacities of the collection and treatment systems, and off-line storage capacity.
- Has in place operating procedures that reflect the best use of the system's flow and routing controls to minimize CSOs. Includes procedures to identify and correct combined sewer system (CSS) and CSO problems.
- Requires logs or other documentation of completed activities and documentation of sewage blockages.
- Addresses the location of overflows where O&M is hindered (e.g., structures are under major thoroughfares, railroad yards, or other difficult-to-reach or safety hazard areas).
- Allocates resources for O&M program implementation, including staffing level and funding, equipment, and training.
- Will be effective in reducing the number, frequency, and pollutant loadings of CSOs.

Note that an operational plan is also a component of the LTCP. The O&M program developed as part of NMC implementation essentially becomes the operational plan (i.e., the revised O&M program that includes the permittee's selected CSO controls). Thus, the operational plan can be reviewed using the above listed factors.

4.4.1.2 Maximum Use of the Collection System for Storage

The permit writer should consider whether the permittee has:

- Identified portions of the CSS usable for storage and determined the CSS storage capacity, including configuration, size, and pump station capacity
- Identified appropriate minor modifications to increase storage (e.g., raising existing weirs)
- Identified potential off-line storage at existing facilities
- Implemented procedures for maximizing CSS storage capacity.

The permit writer should note that this control measure might increase the possibility of "upstream" problems, such as basement flooding, and that the potential for a permittee to increase collection system storage varies. Increased sedimentation in the collection system, more frequent cleaning, odor potential, and other factors should be considered when evaluating the potential for collection system storage.

4.4.1.3 Review and Modification of Pretreatment Programs

This control applies primarily to permittees with approved pretreatment programs. If the permittee does not have an approved pretreatment program, however, it should nevertheless attempt to determine whether nondomestic sources are contributing to CSO impacts. In evaluating the implementation of this control, the permit writer should consider whether the permittee has:

- Determined whether the CSS receives nondomestic wastewater discharges.
- Prepared an inventory of nondomestic users who discharge to the CSS. Evaluated the discharge constituents and suspected impacts from such users.

- Evaluated the potential for regulating either the volume or pollutant loadings from nondomestic users to the CSS during wet weather flow conditions. The evaluation should include a discussion of whether the modifications are feasible or of practical value for CSO control. For example, the permit writer might evaluate whether the permittee has considered requiring nondomestic users with appropriate storage capacity to temporarily hold wastewater during precipitation events or when notified by the permittee or has considered prohibiting new users from discharging storm water or uncontaminated water, such as non-contact cooling water, to the collection system.

- Modified the pretreatment program if appropriate.

4.4.1.4 Maximization of Flow to Publicly Owned Treatment Works Treatment Plant

The permit writer should consider whether the permittee has:

- Compared existing flow conditions to the design capacity of the collection system

- Identified actions that could be taken to increase flows to the publicly owned treatment works (POTW) treatment plant during wet weather flow conditions without significantly affecting treatment performance

- Conducted tests to determine the plant capability to treat higher flows during wet weather flow conditions or determined, using available historical data, the maximum flow that can be treated

- Developed, implemented, and documented implementation of a flow maximization plan during wet weather flow conditions.

4.4.1.5 Prohibition of CSOs During Dry Weather Flow Conditions

The permit writer should consider whether the permittee has:

- Developed adequate procedures to document where and when dry weather overflows occur, including follow-up inspections after dry weather overflows occur

- Developed and instituted procedures to prevent and eliminate dry weather overflows, including routine inspection of regulators and CSO outfalls, as part of the O&M plan.

4.4.1.6 Control of Solid and Floatable Materials in CSOs

The permit writer should consider whether the permittee has:

- Evaluated the following technologies for the control of solid and floatable materials in CSOs: screening materials using baffles, screens, and netting; skimmer boats; skimming from water body surface with booms at outfalls in confined areas; and source control, which may be addressed under the pollution prevention program for CSO outfalls (see Section 4.4.1.7—Pollution Prevention Program)
- Identified and addressed problems that might be created by the installation of the control technology
- Implemented the appropriate control technology, considered and provided justification that the technology is appropriate for the site conditions, and is conducting associated inspections and regular maintenance.

4.4.1.7 Pollution Prevention Program

The permit writer should consider whether the permittee has:

- Evaluated source control measures both at the government level (e.g., street cleaning; banning or substitution of products, such as plastic food containers; controlled use of pesticides, fertilizers, and other hazardous substances at public facilities) and among the public (e.g., used oil recycling, household hazardous waste collection)
- Included a wide-reaching public education program
- Evaluated mechanisms to encourage water conservation (e.g., public outreach, structuring of water/sewer service charges, local ordinance provisions)
- Allocated adequate resources to conduct pollution prevention program activities
- Implemented and maintained detailed records of pollution prevention activities
- Promoted the use of industrial/construction best management practices (BMPs) for storm water.

4.4.1.8 Public Notification

The permit writer should consider whether the permittee has:

- Evaluated options to ensure that the public receives adequate notification of CSO occurrences and CSO impacts
- Implemented notification procedures regarding the presence of contaminants at critical levels in the receiving water bodies due to CSOs
- Implemented procedures that notify persons reasonably expected to be affected by the CSO
- Documented CSO occurrences and associated notifications
- Installed identification signs at each CSO outfall.

4.4.1.9 Monitoring to Effectively Characterize CSO Impacts and Efficacy of CSO Controls

The permittee is likely to have conducted monitoring recommended for this minimum control in conjunction with CSS characterization associated with the LTCP development. Thus, the permit writer should review the permittee's monitoring efforts as a whole and assemble all applicable monitoring data prior to the evaluation. In evaluating the permittee's monitoring data, the permit writer should consider whether the permittee has:

- Characterized the CSS to identify all CSO locations and receiving water bodies
- Collected data on the total number of overflow events and the frequency and duration of CSOs for a representative number of CSO events
- Collected water quality data and information on chemical, physical, and biological impacts resulting from CSOs (e.g., beach closings, floatables, wash-up episodes, fish kills, impaired habitat for aquatic life)
- Conducted monitoring to determine baseline conditions prior to implementation of the NMC
- Conducted monitoring to determine baseline conditions subsequent to implementation of the NMC, which may be used in LTCP development.

It is important to note that the permittee should be considering its NMC measures collectively using a holistic approach—that is, it may be possible to satisfy two or more of the NMC through a single control measure.

4.4.2 Permit Conditions

Once the permit writer has evaluated the permittee's NMC implementation and documentation efforts, he or she should, where appropriate, develop Phase II permit language that requires the continued implementation of the NMC. The permit language should be tailored to the permittee's specific circumstances and should incorporate site-specific implementation and recordkeeping requirements. The permit writer might need to coordinate the development of this permit language with the LTCP implementation language because it is possible that some of the NMC control measures will be incorporated into the LTCP as selected CSO controls or that some NMC control measures might no longer apply when the selected CSO controls have been implemented (e.g., if the system is being separated).

The permit writer should establish technology-based requirements in the Phase II permit based on the permittee's documentation of the NMC and any revisions resulting from development of the LTCP. Exhibit 4-2 provides example permit language for each of the NMC. The permit writer should evaluate this language carefully to ensure that it is appropriate for the permittee. A portion of this language should be applicable to all permittees implementing each particular minimum control. Additional site-specific language, which should be tailored to the specific control measures implemented by the permittee, is given in italics. Although the site-specific language might not be appropriate for all permittees, it is provided as an example of the type of language and detail appropriate for requiring implementation of the NMC in the Phase II permit. The permit writer may be able to select language directly from the permittee's NMC documentation or LTCP and incorporate it into the permit. Although this guidance presents numerous examples of site-specific permit conditions, it may be appropriate in some cases to write broader conditions. This would provide sufficient flexibility to allow the permittee to identify and implement other controls that are equally or more protective without the need to modify the permit.

Exhibit 4-2. Example Permit Language for Continued Implementation of the Nine Minimum Controls

I. Effluent Limits

A. Technology-based requirements for CSOs. The permittee shall comply with the following technology-based requirements:

1. Conduct proper operations and regular maintenance programs. The permittee shall implement the operation and maintenance plan for the CSS that will include the elements listed below. The permittee also shall update the plan to incorporate any changes to the system and shall operate and maintain the system according to the plan. The permittee shall keep records to document the implementation of the plan.

   Site-Specific Language:

   Designation of a Manager for Combined Sewer System. The permittee shall designate a person to be responsible for the wastewater collection system and serve as the contact person regarding the CSS.

   Inspection and Maintenance of CSS. The permittee shall inspect and maintain all CSO structures, regulators, pumping stations, and tidegates to ensure that they are in good working condition and adjusted to minimize CSOs and prevent tidal inflow. The permittee shall inspect, or cause to be inspected, each CSO outfall at an appropriate frequency to ensure no dry weather overflows are occurring. The inspection shall include, but is not limited to, entering the regulator structure if accessible, determining the extent of debris and grit buildup, and removing any debris that may constrict flow, cause blockage, or result in a dry weather overflow. The permittee shall record in a maintenance log book the results of the inspections. For CSO outfalls that are inaccessible, the permittee may perform a visual check of the overflow pipe to determine whether or not the CSO is occurring during dry weather flow conditions.

   Provision for Trained Staff. The permittee shall ensure the availability of trained staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit. Each staff member shall receive appropriate training.

   Allocation of Funds for O&M. The permittee shall allocate adequate funds specifically for operation and maintenance activities. The permittee shall submit a certification of assurance from the appropriate local government entities that the necessary funds, equipment, and personnel have been or will be committed to carry out the O&M plan.

2. Maximize use of the collection system for storage. The permittee shall maximize the in-line storage capacity. The permittee shall keep records to document implementation.

   Site-Specific Language:

   *The permittee shall 1) maintain all dams or diversion structures at their current heights (as of the date of permit issuance) or greater, 2) minimize discharges from the CSO outfall locations designated as **[insert appropriate designation]** until the specified capacity of the **[named]** Combined Sewer Retention Basin is used to store the overflow for later treatment at the plant, and 3) keep records of the flow entering and leaving the **[named]** Combined Sewer Retention Basin.*

Exhibit 4-2. Example Permit Language for Continued Implementation of the Nine Minimum Controls (continued)

3. Review and modify pretreatment program. The permittee shall continue to implement selected CSO controls to minimize the impacts of nondomestic discharges on CSOs. The permittee shall re-evaluate at an appropriate frequency whether additional modifications to its pretreatment program are feasible or of practical value. The permittee shall keep records to document this evaluation and implementation of the selected CSO controls to minimize CSO impacts resulting from nondomestic discharges.

   Site-Specific Language:

   The permittee shall require significant industrial users (SIUs) discharging to the CSS to minimize batch discharges during wet weather conditions.

   [Alternative language for a permittee without an approved pretreatment program:] Actions to minimize impact of nondomestic discharges on CSOs. The permittee shall continue to implement selected CSO controls to minimize CSO impacts resulting from nondomestic discharges.

4. Maximize flow to POTW treatment plant. The permittee shall operate the POTW treatment plant at maximum treatable flow during wet weather flow conditions/events and deliver all flows to the treatment plant within the constraints of the capacity of the treatment plant. The permittee shall keep records to document these actions.

5. Prohibit combined sewer overflows during dry weather. Dry weather overflows from CSO outfalls are prohibited. All dry weather overflows must be reported to the permitting authority within **[insert appropriate number of days]** days of when the permittee becomes aware of a dry weather overflow. When the permittee detects a dry weather overflow, the permittee shall begin corrective action immediately. The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated. The permittee shall record in the inspection log book dry weather overflows, as well as the cause, corrective measures taken, and the dates of beginning and cessation of overflow.

6. Control solid and floatable materials in CSOs. The permittee shall implement measures to control solid and floatable materials in CSOs.

   Site-Specific Language:

   These control measures shall include:

   - *Measures to ensure that baffles are in place to control overflows from the diversion structures or that other means are used to reduce the volume of floatables.*
   - *Inspection and maintenance of the sewer system so that solid or floatable materials greater than **[insert size]** are not present in CSOs.*

Exhibit 4-2. Example Permit Language for Continued Implementation of the Nine Minimum Controls (continued)

7. Develop and implement pollution prevention program. The permittee shall implement a pollution prevention program focused on reducing the impact of CSOs on receiving waters. The permittee shall keep records to document pollution prevention implementation activities.

   Site-Specific Language:

   This program shall include:

   - *Street sweeping and catch basin modification or cleaning at an appropriate frequency to prevent large accumulations of pollutants and debris*
   - *A public education program that informs the public of the permittee's local laws that prohibit littering and the use of phosphate-containing detergents and pesticides.*
   - *An oil recycling program.*

8. Notify the public of CSOs. The permittee shall continue to implement a public notification plan to inform citizens of when and where CSOs occur. The process must include:

   a. A mechanism to alert persons using all receiving water bodies affected by CSOs

   b. A system to determine the nature and duration of conditions that are potentially harmful to users of these receiving water bodies due to CSOs.

   The permittee shall keep records documenting public notification.

   Site-Specific Language:

   Within 3 months of the effective date of this permit, the permittee shall install and maintain identification signs at all CSO outfalls owned and operated by the permittee. The permittee must place the signs at or near the CSO outfalls and ensure that the signs are easily readable by the public.

9. Monitor to effectively characterize CSO impacts and the efficacy of CSO controls. The permittee shall regularly monitor CSO outfalls to effectively characterize CSO impacts and the efficacy of CSO controls.

   Site-Specific Language:

   [For example language, see Exhibit 4-5.]

Exhibit 4-2 does not provide site-specific permit language for the ninth minimum control: monitoring to effectively characterize CSO impacts and efficacy of CSO controls. This monitoring should be integrated with the monitoring requirement to be placed in the Phase II permit associated with implementation of the LTCP. Section 4.7 contains information on developing permit language for these monitoring requirements.

4.4.2.1 Documentation for Fact Sheet/Statement of Basis

As required in 40 CFR 124.7 and 124.8, a fact sheet (or a statement of basis for minor discharges) must be prepared for every NPDES permit. The purpose of the fact sheet is to set forth the principal technical facts and the significant factual, legal, methodological, and policy questions considered in preparing an NPDES permit. Although 40 CFR 124.8 establishes the minimum requirements for a fact sheet, each permit writer should follow the format used by the NPDES permitting authority.

The fact sheet must discuss the basis of all Phase II permit conditions requiring implementation of the NMC. The permit writer should use the permittee's NMC documentation to record in the fact sheet the justification for implementation of the specific minimum controls chosen by the permittee. Further, when NMC are imposed in a specific permit, the permit writer should discuss the fact that the NMC are being used to comply with the technology-based requirements of the CWA (see Section 3.6.1). EPA's *Training Manual for NPDES Permit Writers* contains more information on preparing a fact sheet or statement of basis (EPA, 1993).

4.5 LONG-TERM CONTROL PLAN

The permit writer will generally be responsible for reviewing interim deliverables (see Section 3.5.2) and for working closely with the permittee to ensure that any inadequacies, problems, or issues are addressed in a timely fashion prior to submission of the completed LTCP and the development and issuance of the Phase II permit.

In preparing for the development and issuance of a Phase II permit, the permit writer should review the LTCP submitted by the permittee. After reviewing the LTCP, the permit

writer should require, where appropriate, implementation of the selected CSO controls identified in the LTCP. The primary responsibility of the permit writer in developing Phase II permits is to ensure that the CSO controls proposed by the permittee comply with the requirements of the CWA, including attainment of WQS. The requirement to implement these controls should be appropriately reflected as enforceable NPDES permit conditions or included in another enforceable mechanism. This section provides guidance on how to review the LTCP and develop permit conditions to implement the LTCP.

4.5.1 Review of Long-Term Control Plan

The permit writer should form and coordinate a review team that will be responsible for reviewing the LTCP and ensuring that CWA requirements will be met. An appropriate review team should include:

- WQS personnel to assist in evaluating proposed CSO controls and to review and revise State WQS, as appropriate. WQS personnel can also assist in evaluating any ambient or special monitoring conditions (e.g., toxicity testing) that may be required during the term of the Phase II permit to monitor the effectiveness of the selected CSO controls.

- Enforcement personnel to assist in ensuring that permit language is enforceable. Enforcement personnel can also provide input on the use of other enforceable mechanisms (e.g., administrative orders) to require implementation of the selected CSO controls. This will be particularly important if extensive time is required by the permittee to comply with Phase II permit requirements.

- Field personnel to help review monitoring plans and assist in the development of CSO monitoring requirements.

- Watershed personnel to ensure that the permittee's CSO control efforts are coordinated with other point and nonpoint source control efforts within the watershed.

The review team should also include other types of personnel, as appropriate, depending on the site-specific situation.

As discussed in Section 3.5.2, the permittee is likely to have submitted parts of the LTCP as interim deliverables during the Phase I permit term. The permit writer and other members of the review team should review these deliverables, as well as the completed LTCP detailing the permittee's selected CSO controls, as soon as they are submitted.

Upon receipt of the LTCP, the permit writer should first determine whether it complies with the requirements in the Phase I permit. After initial review of the LTCP, if a permit writer determines that certain components are incomplete or are addressed improperly, the permit writer should follow up with the permittee. Section 4.4.1 presents information on followup procedures.

The permit writer, with support from other review team members, should review the LTCP to ensure consistency with the CSO Control Policy and to ensure that the selected CSO controls are reasonable and will result in compliance with CWA requirements. Of the various CSO control alternatives considered by the permittee during LTCP development, the LTCP will identify one or a combination of CSO controls for implementation. The LTCP should discuss all of the alternatives and, more importantly, why the selected CSO controls were chosen. There should also be a discussion related to the selected CSO controls, including maximization of treatment at the POTW treatment plant; the operational plan; integration of the NMC; monitoring; costs of the selected CSO controls and financing; and the implementation schedule, possibly including identification of milestones where re-evaluation and modifications would occur. All other parts of the LTCP, including the CSS and water quality characterization monitoring and modeling used during the development process, the other alternatives and costs, and public participation, ultimately become "historical" material that should not be addressed in the Phase II permit, because they are not part of the selected CSO controls. This information is generally critical for appropriate review of the LTCP, however.

The remainder of this section presents questions the permit writer should consider while reviewing the LTCP. These recommended evaluation criteria are also provided in a checklist in Appendix D. These review questions are based on the provisions of the CSO Control Policy

and the guidance provided in the *Combined Sewer Overflows—Guidance for Long-Term Control Plan* (EPA, 1995a). Although the permit writer may use these questions as the basis for review, he or she may need to supplement them to reflect the site-specific Phase I permit conditions established for a particular permittee. For example, if a Phase I permit specifically required monitoring and evaluation of certain pollutants of concern, then the permit writer should ensure that the permittee has addressed these pollutants in its monitoring plan.

In reviewing the LTCP, the permit writer should remember that the level of detail in the LTCP can vary significantly depending on the permittee and its CSS. The overall intent of the review is to ensure that the LTCP is a coherent, organized document and that the permit writer can follow a logical step-by-step analysis that justifies selection of the CSO controls.

4.5.1.1 Public Participation

When evaluating the public participation element of the LTCP, the permit writer and other review team members should consider the following evaluation questions to ensure that the proposed plan, once implemented, will result in an effective public participation program:

- Does the public participation process seek to actively involve rate payers, industrial users of the CSS, persons near the affected waters, and persons who use the affected waters?
- Does the public participation plan document how the public was notified of public participation events?
- Does the public participation plan include a record of the public participation events, including the number of people attending and a record or summary of comments?
- Does the public participation plan contain a summary of comments and the changes or decisions made in response to public comments?

4.5.1.2 CSS Characterization, Monitoring, and Modeling

When the permittee submits a proposed monitoring plan as an interim deliverable during LTCP development, the permit writer and other team members should review it to ensure that,

once implemented, the proposed plan describes an effective monitoring program that will provide the necessary data. The team should consider the following questions:

- Is there a general description of the CSS that includes the geographical area and population served?
- Is there a map of the CSS depicting the location of all CSO outfalls and receiving water bodies?
- Have sensitive areas and all outfalls located in these areas been identified?
- Is there a description of how the CSS responds hydraulically to rainfall events, and is it adequate to determine which rainfall events trigger CSOs?
- Is there information on the volume, flow rate, and frequency of CSOs and the pollutants discharged?
- Is there information on the CSO pollutant loadings and their impacts on receiving waters?
- Has all available information on pollutant loadings from other point and nonpoint sources in the watershed and their impacts on receiving waters been identified and compiled?
- Is there information on designated uses of receiving waters and whether the designated uses are being met?
- Does the CSS and CSO characterization provide information on the known effects of the CSOs on water quality during precipitation events, as well as provide the level of detail needed to model or project both the operation of the system and the impacts of various overflow scenarios on the receiving waters?
- Is monitoring sufficient to document baseline conditions to allow the permittee to demonstrate the long-term benefits of CSO controls?
- Has the monitoring been coordinated with any ongoing or planned State programs and programs of other permittees within the same watershed?
- If modeling was conducted, is the model identified and described, and are the results provided?

Appendix B contains additional information on reviewing monitoring plans.