

NPDES Permit Quality Review (PQR)

Standard Operating Procedures

Draft

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I. BACKGROUND

National Pollutant Discharge Elimination System (NPDES) Permit Quality Review (PQR) is an evaluation of a select set of NPDES permits to determine whether permits are developed in a manner consistent with applicable requirements established in the Clean Water Act (CWA) and NPDES regulations. The evaluation compares the substantive and procedural requirements set out in relevant regulations (40 CFR 122 through 133, and 400 through 699) and guidance with the permit file documentation developed as part of permit issuance. PQRs serve to promote permit quality, ensure a reasonable degree of national consistency with regard to NPDES program requirements, and also serve to ensure that NPDES permits keep pace with developments in the NPDES program. PQRs are conducted under EPA's state program oversight and information collection authority.

EPA has integrated the NPDES PQR process with the enforcement program's State Review Framework (SRF). The SRF consistently assesses EPA and state enforcement of the Clean Water Act, the Clean Air Act, and hazardous waste laws. Within the SRF, EPA conducts regional and state reviews on a four-year cycle using 1) national and state data, 2) enforcement file reviews, 3) commitments made in annual agreements, and 4) discussions with senior management. Once the review is completed, a report is created, and where issues are identified, they will be addressed collaboratively and agreed upon measures will be captured in future grant agreements. Integration of the PQR and SRF process provides a more holistic review of the permitting and enforcement aspects of the NPDES program and better integrates enforcement concerns into the permit development process.

II. PURPOSE

These Standard Operating Procedures (SOPs) describe the process of NPDES PQRs to ensure that PQRs conducted by EPA regions and headquarters promote a reasonable level of national consistency. This document is intended to serve as a user's guide and reference manual for those persons coordinating and conducting NPDES PQRs in EPA regions and headquarters.

III. PROCESS

The PQR process, and these SOPs, will guide the reviewer through the entire review process, from the planning phases through implementation and development of a findings report and action items. The process consists of the following steps:

1. PQR planning, including:
 - identifying states for review,
 - identifying permits to review,
 - identifying national topic areas and regional topic areas, and
 - scheduling;
2. Obtaining permits, fact sheets and supporting information and materials;
3. Conducting desktop reviews;
4. Conducting national topic area and regional topic area reviews;
5. Conducting state visit interview and permit file review; and
6. Developing the PQR report, including:
 - summarizing findings
 - identifying action items

The following sections provide more detail on how to conduct each of these steps as you work through the review process. **If you have any clarifying questions at any point in the process, please contact your PQR coordinator at EPA headquarters.**

IV. PERMIT QUALITY REVIEW STANDARD OPERATING PROCEDURES

1.0 Planning for the PQR

Each EPA region is expected to conduct a review of each of its authorized states within the four-year review cycle. EPA headquarters will review programs in jurisdictions in which EPA implements the NPDES program. These reviews are to be conducted in collaboration with EPA enforcement (SRF) reviews, if possible.

1.1 PQR Planner

The PQR Planning Document (PQR Planner; Attachment B) should be completed prior to the start of the four-year PQR cycle and should address all four years of the cycle. Its development should be coordinated with regional enforcement (SRF) reviews. The PQR Planner is a planning tool and regions will have the flexibility to adjust the plan as necessary as the cycle progresses.

The following information should be included on the PQR planning form:

- The region completing the form.
- A list of states within the region that are authorized to administer the NPDES program.
 - The region should indicate any geographic or programmatic areas of the state program that are not authorized, and remain administered by EPA.
- The federal fiscal year during which the region plans to review each authorized state.
 - Considerations for the years in which states are reviewed should include when the state was last formally reviewed, the need to follow-up on previously-identified action items, and the presence of issues in a particular state that EPA feels need attention. PQR and SRF reviews should be planned for the same fiscal year beginning in FY2013, so permitting and enforcement units should coordinate in advance of submission of the planner to ensure agreement on schedule.
- The quarter within the federal fiscal year in which the region plans to visit the state.
 - It is understood that scheduling challenges may necessitate adjustments, particularly for later years. Regions should keep EPA headquarters informed of adjustments made after the submission of the planner.
- The number of permits the region will review using the standardized PQR review process for each state (see section 2.1.1, below, for more information on identifying permits for the PQR core review).
- The type of core review the region expects to conduct (see section 2.1 for more information on core reviews).
 - Draft permit reviews are ones in which the region reviews the draft permit at the time of issuance and later reviews the final version for the purposes of the PQR.

Draft permit reviews (also referred to as real-time reviews) allow regions to use NPDES permit reviews they perform as part of their NPDES oversight responsibilities as part of a PQR.

- Final reviews are ones in which only the final version of a recently issued permit is reviewed for the PQR.
- Hybrid reviews are ones in which a portion of the permits are reviewed using the draft review approach and the remaining are reviewed using the final review approach.
- Regional topic areas the region plans to review for each state.
 - Examples are antidegradation, whole effluent toxicity, CWA Section 316(a) and (b), etc. See section 2.3 for more information on regional topic area reviews.
- Any request for EPA headquarters assistance with a planned state PQR.

Regions should initiate communication with their enforcement counterparts and states as early as possible to accommodate both regional and state needs, and to begin an open and effective communication process with the states. Regions should initially share with the states their broad plans for the four-year cycle of PQRs, including the fiscal year and quarter when a region plans to visit each of its states. At this time, the region should ensure that the state has a complete set of PQR assessment materials. The regions also can share the number of core permits (draft and final) and national topic permits they intend to review. In addition, the regions should identify and discuss specific focus areas for review. These preliminary plans should be discussed with the states so that the PQR planning document can be drafted (and shared with EPA headquarters) and an agreed upon framework can be established. Once dates have been established for the state visit, regions should send the State Informational Letter (see Attachment C) to the state or engage in equivalent communication, such as a formal meeting, to formally begin the PQR process. If the letter is sent at the beginning of the four-year review cycle, communication should be maintained or reestablished as the time for the review approaches. In addition, the need to make any changes to the PQR planning document should be promptly communicated to both the state and EPA headquarters.

1.2 Permit Material Request

Once permits have been identified for review, regions should submit a request to the state for relevant permit materials, if materials were not previously submitted to the region. Relevant permit materials include:

- Draft or final permits and fact sheets for core reviews, national topic reviews and regional topic reviews (see sections 2.1.1, 2.2 and 2.3, respectively, for more information on identifying permits for each of these types of reviews).
- Supporting material, including applications, reasonable potential (RP) analysis, water quality (WQ) spreadsheets, TMDLs, compliance schedules, and other documents used in the permit development status, if available.
- Permit record, including public notice, correspondence, etc., if available.

At a minimum, the permit and fact sheet should be reviewed as part of the desktop review, as described below. The remaining materials are beneficial as supplemental material in the desktop review, and if not available for review prior to the state visit, these materials should be reviewed at the time of the state visit.

The region should maintain lists of permits included in the core review and topic-specific reviews, along with copies of the permits and fact sheets for the review. Before initiating permit reviews, ensure that the permits and supporting materials obtained from the state are the ones the region had identified for review. Use of a permit selection spreadsheet, such as the sample provided in Appendix 2, can aid this process.

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2.0 Permit Reviews

PQRs primarily consist of an evaluation of selected permits and supporting materials using standardized NPDES program criteria. Three types of permit reviews are included in the PQR process: core reviews, national topic reviews, and regional topic area reviews. The core review focuses on evaluation of the aspects identified in the Central Tenets of the NPDES Permitting Program (Appendix 1). National topic reviews are also conducted to evaluate specific issues or types of permits of national priority, while regional topic area reviews evaluate issues of regional or state importance. National and regional topic reviews target components or types of permits (e.g., nutrients, stormwater, pretreatment, impaired waters, TMDLs, antidegradation, mixing zones, compliance schedules). The scope of a national topic review is determined by checklists developed by EPA. The scope of regional topic area reviews is determined by EPA regions on a case-by-case basis.

2.1 Core Reviews

The core review focuses on assessing core permit quality using the process established in this guide, and documenting findings based on the PQR checklist and other tools developed to support this process. The core review typically includes a pre-site visit desktop review followed by an onsite review of the permit, fact sheet, and administrative record, including the permit application, limits, monitoring requirements, special conditions, standard conditions, correspondence, documentation, and administrative process, as well as other factors, in the state permit files (see Section 3.0 for more information on conducting a state visit).

2.1.1 Permit Identification

For each state PQR, EPA will review selected permits issued by the state (or EPA region, for states in which EPA is the permitting authority). The core review is a review of the permit components and procedures that apply to individual NPDES permits. The areas evaluated correspond to the Central Tenets of the NPDES Permitting Program (Appendix 1). Permits can be reviewed at the draft stage with a follow-up review after final issuance or reviewed solely after final issuance; more about permit review procedures can be found in section 2.1.2. The following guidelines apply to permit selection for the core review portion of the PQR:

1. **Number of permits for review:** The region should select a sufficient number of permits for review to yield an adequate representation of permitting practices in the state. There should be a minimum of 10 permits reviewed for the core review.
2. **Major and Non-major facility permits:** The majority of permits reviewed should be those for major facilities, with at least two permits reviewed that are for non-major facilities. Therefore, if 10 permits are reviewed, eight of the permits reviewed should be for major facilities.
3. **Permittee types:** There are two main types of permits reviewed for the PQR core review, municipal permits (POTW) and industrial permits (non-POTW). The number of POTW and non-POTW permits reviewed should reflect the ratios of major permits issued in that state (e.g., if 60% of major permits issued in the state are POTWs, then

review six POTWs and four non-POTWs if the total number of permits reviewed is 10). This ratio should be reflected in the total universe of permits reviewed, not just the major facilities.

4. **Permit Dates:** To capture current permitting practices, the permits reviewed should be draft or permits issued within two years of the state visit, when possible. If there is an insufficient number of permits meeting this criteria, permits issued up to four years prior to the review may be used. If draft permit reviews are being utilized for a PQR, the draft permits reviewed should be ones that are expected to be finalized by the time of the planned state visit so that the final version of the permit and full permit issuance process can be assessed.
5. **Random sampling:** To give fair representation of the permits reviewed, at least two permits should be randomly selected from a list of all permits in the state meeting the selection criteria. The remaining permits may be those the EPA region is reviewing as part of other efforts such as real-time permit reviews.
6. **Permit Selection:** Searching for permits can be done a number of ways. The regions can use EPA's Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES) to conduct a search for recently issued permits. If a state provides the region with their permitting universe in an alternative form, that may be used as well. Regions may also review draft permits that are submitted by the state for EPA review, provided that the above criteria is met.

2.1.2 Desktop Review

The desktop permit review is the portion of the core review usually conducted prior to the state visit to provide EPA with preliminary findings. At a minimum, the desktop review is based on the permit and fact sheet. Typically, these materials are not sufficient to complete the entire PQR checklist, and the reviewer should flag questions and issues that require follow up during the more detailed file review. Outstanding issues should be assessed based on the permit file (either on-site during the state visit or if elements of the file are provided to the reviewer). If a draft permit is reviewed, the NPDES Permit Review Checklist (Attachment D) should be completed to the extent possible based on the draft. The Permit Review Checklist Companion (Attachment E) provides further instruction on using the checklist. The final permit should be reviewed during the state visit, and the permit file should be used to address outstanding issues. Preliminary observations based on the desktop review, specifically those that are consistent among the permits reviewed, may inform the discussion during the opening interview and guide EPA to ask additional, more focused, questions about certain areas of interest (e.g., reasonable potential procedures).

Tools Needed for Review

Reviewers should complete the core review by examining selected permits and supporting documentation, assessing these materials using PQR tools and program knowledge, and, later, talking with state permit writers to answer technical questions related to the permit

development process. In the core review, reviewers evaluate the permits for all of the “core” elements of the program (e.g., permit administration, effluent limits, monitoring requirements, standard conditions, and special conditions).

The following tools are primarily used for the core review:

- Central Tenets of the National Pollutant Discharge Elimination System (NPDES) Permitting Program (see Appendix 1);
- NPDES Permit Review Checklist (see Attachment D); and
- NPDES Permit Review Checklist Companion (see Attachment E)

State Permitting Regulations and Policies

As an initial step, reviewers should locate the permitting regulations, water quality standards (WQS), and implementation policies and guidance for the state being reviewed. It is critical to have an understanding of the state’s NPDES program and WQS prior to evaluating permit quality. The regulations, WQS, policies and guidance may include useful information such as implementation procedures for water quality criteria and effluent limit development, or special technology treatment standards, which would enable an efficient review of the state’s permit.

The state’s WQS typically identify the receiving water classification and designated uses; this information is required in order for reviewers to complete the questions contained in the Water Quality-based Effluent Limits section of the checklist. In addition, reviewers should also locate the state’s list of impaired waters and TMDLs, if available, as the checklist contains questions regarding the permit’s content with respect to the facility’s receiving water impairment status and applicability of TMDLs to the receiving water.

Using the Checklist

The goal of the PQR checklists is to provide a common structure to assess and document whether the permit and administrative record provide a complete, comprehensive, and transparent record of permit development. The checklists are intended to guide a comprehensive evaluation of the NPDES permit development process by a knowledgeable EPA or state NPDES permit reviewer.

Reviewers will complete the checklist by answering “yes” or “no” (or “NA”) to the questions in each section (e.g., effluent limitations, water quality-based effluent limits, special conditions). A “yes” or “no” response in the checklist does not necessarily mean that the condition is correct or incorrect. Rather, the checklist is intended as a guide for the permit reviewer to help ensure a thorough review of the permit. Reviewers may also want to include additional comments as end notes to support the answer noted in the checklist. This is helpful during a desktop review to document potential issues, questions or information that is needed, as well as to indicate which documents the response is based upon. Reviewers may also provide a short list of overall findings, as a summary of the permit review. This summary enables staff who may not have

reviewed the permit, to have an “at a glance” understanding of the permit terms and conditions, and highlight potential topics for further discussion when on-site.

The NPDES Permit Review Checklist (Attachment D) is a single checklist with separate sections for POTW and non-POTW facilities. To complete the checklist for a municipal facility, reviewers will likely consult the Secondary Treatment Standards in 40 CFR 133, as well as the core permitting requirements in Part 122. To complete the checklist for a non-municipal facility, reviewers will likely consult applicable Effluent Limitation Guidelines (40 CFR 405-471) and Best Professional Judgment requirements in 40 CFR 125.3.

The checklist companion document (Attachment E) provides detail and examples of how to complete the checklist.

Permit Review

Reviewers should begin the review by reading the permit and fact sheet prior to answering questions in the checklist, for a general understanding of the facility’s operations and discharge type and to help inform the reviewer of expected components of the review (e.g., facility description, discussion of pollutants of concern, and technology-based effluent limit development). During the desktop permit review, reviewers will complete as much of the checklist as possible based on the information available. This portion of the review is most commonly conducted prior to any in-person visit to the state.

Reviewers should refer to EPA’s NPDES Permit Review Checklist Companion (Attachment E) for assistance in completing the PQR checklist. Reviewers will complete each question of the checklist with a “yes” or “no” (or “NA”) answer and add comments as necessary, to provide information to guide the on-site staff to review specific components of the permit file, application, or administrative record or ask the state’s permit writer specific questions in order to evaluate the checklist question more fully while on-site. At times, the desktop reviewer does not have access to anything more than the permit and fact sheet; therefore, comments inserted as end notes may be particularly useful to the state visit reviewer to conduct a thorough review of the permit. Reviewers may find it useful to include the location within the permit or fact sheet, where the evidence supporting the answer was found. This also may enable the state visit reviewer to examine permit documents more efficiently.

Summarizing Findings

Reviewers should summarize main findings for each permit and fact sheet reviewed. Preliminary findings, specifically those that are consistent among the permits reviewed, may inform the discussion during the opening interview and guide EPA to ask additional, more focused, questions about certain areas of interest (e.g., reasonable potential procedures). Therefore, a reviewer should summarize overall observations such as, potential issues (e.g., omission of effluent limits implementing secondary treatment standards or ELGs), unclear permit conditions or rationale, identification of unique permitting approach, so that staff conducting the state visit review are able to ask focused questions of the state permit writer.

Completing the Core Review

Completion of the core review is accomplished with a file review at the state visit. See section 3.0 for more information on conducting a PQR state visit.

2.2 National Topic Reviews

National topic areas are topics of national significance that affect every state in every region. Each state PQR must evaluate all national topic areas. These areas have a significant water quality impact and will be reviewed to ensure that permits and permitting programs are properly addressing NPDES requirements for the following topics:

- **Nutrients** – The goal of this review is to identify if and how the permitting authority incorporates nitrogen and phosphorus limits and monitoring into permits;
- **Pesticides** – The goal of this review is to assess the work done to date and work plans in the future for permitting discharges from application of pesticides. In the future, the reviews will evaluate the quality of existing programs and identify where enhancements are needed;
- **Pretreatment** – The goal of this review is to assess the status of the pretreatment programs in states, as well as assess specific language in NPDES POTW permits; and,
- **Stormwater** – The goal of this review is to identify how the NPDES program requires stormwater discharges to be permitted from certain municipal separate storm sewer systems (MS4s), industrial activities, and construction sites.

National topic reviews are typically solely desktop reviews conducted at EPA offices. EPA has developed standard assessment criteria and procedures for reviewing each of these topics. Regions are expected to use these national topic checklists in their review and to summarize their findings in the final state PQR report. Each national topic assessment packet (see Attachments F-I) includes procedures for identifying permits for review and conducting the review for that area. If individual permits are reviewed, three permits should be reviewed for each topic area. Permits reviewed for the national topic area reviews may be the same permits reviewed for other portions of the PQR, if such permits meet the criteria for selection for both portions of the review (e.g., a permit could be utilized for the core review and the nutrients topic area review if it incorporates nutrient limits).

2.3 Regional Topic Reviews

Regional topic areas are program areas of particular relevance in a given EPA region or state. These regional topic areas may be unique to each state PQR, and there is no standard list from which to select focus areas. In choosing the regional topic areas, regions should consider challenges the state programs are facing, and also consider other factors, such as:

- If there are significant levels of activity in the state or region;
- Whether new regulatory requirements exist;
- Weak state requirements or weak program implementation; or,

- If activities within the state or region pose a potential for significant environmental impact.

Based on these factors, regions should choose two to four regional topics to conduct select permit reviews to assess state implementation of these programs against NPDES regulations. There are no standardized assessment criteria (i.e., checklists) for these reviews and thus applicable NPDES requirements and guidance should be used. Regions will be expected to summarize findings of the reviews in the final state PQR report.

2.3.1 Identifying Permits for Regional Topic Area Reviews

Though additional documents and state policies or procedures may be reviewed as part of the regional topic area reviews, permit reviews should be included in the assessment of each area. The following guidelines apply to permit selection for the regional topic area review portion of the PQR:

1. **Number of permits for review:** The region should aim to select a sufficient number of permits for review to yield an adequate representation of permitting practices in the state.
2. **Permit issuance:** To capture current permitting practices, the permits reviewed should be ones issued within two years of the review, when possible. If there are an insufficient number of permits meeting this criterion, the most recent permits issued should be used.
3. **Identification of permits for review:** Draft permits received by the region for review that have the characteristics necessary for regional topic area review may be used for the review; any other permits should be randomly selected from a list of permits meeting the selection criteria for each topic area. Permits reviewed for the regional topic area review can be the same permits used for the core review if they are suitable for the identified topics. It is not appropriate to select only those permits with known issues in the regional topic areas, as this would not provide a reasonable representation of how the state approaches the focus area.

3.0 Conducting a PQR State Visit

The purpose of the state visit is to discuss the state NPDES program to better understand how the state is implementing various aspects of NPDES program requirements, to complete the core review, and to discuss findings with relevant state programmatic staff. While a great deal of information can be gleaned from conducting desktop reviews, the permit record contained within the state permitting office allows the reviewer to more fully understand the decision-making process involved in permit development across the state, and allows for improved relations with the state through face-to-face discussions of strengths and challenges within a state program. Where a state has regional offices with substantial permitting responsibilities, the region should consider visiting multiple offices as part of the PQR. Typically there are at least two reviewers present at the state visit to conduct permit reviews.

A State Visit Packet has been compiled as an aid for reviewers who are traveling to a state office as part of the PQR. This Packet contains the interview questions and interview tips, tips for conducting a file review, and suggestions for preparing for and conducting the close-out interview. See Attachment M for a copy of the State Visit Packet.

In preparation for the state visit, EPA should request sufficient review space be provided for use for the interview and permit review portions of the visit. EPA should also provide the state with the schedule and/or agenda for the visit and any requests for availability to consult permitting staff and management during the visit. EPA should provide the first portion (Part 1) of the interview questions described below to the state well in advance of the review, in order to receive the state's response prior to the visit.

3.1 Interview

The PQR state visit generally begins with a discussion with state permitting staff and management. Typically, two or three senior permit writers and permitting management are present; TMDL and water quality modeling staffs are sometimes present as well. It is important to include state permit writing staff in the interview and not restrict the interview to management-level participation. The purpose of the opening interview is to discuss information provided by the state regarding background permit program information, and to walk through the permit development process in the state.

Staff should reference EPA's PQR Interview Questions (see Attachment J) to conduct interviews with the state. The opening interview should begin with an explanation of the review process, including a timeline for report development and what role the state is expected to play in the state visit and report review, before moving into the programmatic questions. These questions address permit program background information (Part 1) and NPDES permit development (Part 2). Even though EPA staff may have an existing understanding of state processes and procedures, it is important that both parts of the interview questions are used during the site visit to ensure that EPA learns the most current practices in the state prior to reviewing permit files.

- Part 1 should be shared prior to the state visit to gain a better understanding of the permitting universe and state NPDES program structure, and reduce the time needed for the interview while visiting the state. Once a completed form is received from the state, regions should review data and information provided by the state to verify the document is accurate. The region should request that the completed or verified document be submitted to the region no less than two weeks prior to the state visit so it can be reviewed to determine if any follow-up questions are needed at the state visit.
- Part 2 consists of questions to ask during the interview that follows a general progression, covering topics as broad as the permitting universe and as narrow as the requirements for sufficiently sensitive analytical methods for certain parameters. EPA's list of questions provides a general guide, but the interviewer should acknowledge the interview will address tangential topics not listed explicitly in the interview questions, based on answers given to the questions presented in the list. To gain a clearer understanding of the health of the state's NPDES program, additional detailed and focused questions should be asked as necessary, based on the flow and direction of the interview. Because each permitting program has unique issues, the interviewer may ask questions more specific than those included in EPA's PQR Interview Questions. EPA personnel conducting the interview at the state visit should take careful notes for use in preparation of the PQR report.

Once the interview is complete, regional staff participating in the PQR should have a better understanding of the state's permit development process, as well as any external challenges the state may face in implementing their NPDES program.

3.2 Review permit files

Prior to the state visit, regions should provide states with a list of the core review permits EPA reviewed for the PQR. The administrative records for these core review permits will be reviewed as part of the PQR state visit. The state should make available for review the permit file, which typically includes the final permit, fact sheet, administrative record, calculations, and appropriate supporting information (e.g., application, facility monitoring data, and effluent limit calculations).

While at the state, regions should conduct a complete review of the permit, fact sheet, and supporting information in order to complete the PQR checklist. Generally, the state visit reviewers will use the partially-completed PQR checklist from the desktop review and complete the remaining portions of the checklist while reviewing the final permit and supporting documentation. If a draft permit was reviewed during the desktop review, the reviewer should note any changes between the draft and final permit and ensure the checklist responses reflect the final permit. Reviewers should also follow-up on comments and preliminary findings provided for each permit being reviewed. State visit reviewers will likely have opportunities to talk with the permit writer to ask specific questions during the permit review; reviewers should use this opportunity to clarify comments included in the PQR checklist to identify state-specific approaches to developing certain permit conditions and rationale.

3.3 Tips for conducting a file review

Remember that you likely have a maximum of 2-3 hours to complete and document each permit file review. Budget your time appropriately and try not to get bogged down in too many details.

As you review the file, periodically scan through the permit review checklist to reinforce what questions and issues are unclear, and which elements to focus on during the review.

Prior to starting the file review, make sure to clarify with state staff where all relevant information is located. This should generally be covered during the interview process. Specifically, make sure to determine the following:

- What data and information are in hard copy and what data and information are electronic?
- How are files organized? (e.g., permit, correspondence, administrative record)
- Have they provided *the full permitting record*?
- If something seems to be missing, ask early. Take care not to assume information is lacking, only to find out too late that it's in a different file.

Once you've gathered the complete file, take 5-10 minutes to quickly leaf through it front to back and see what you have. Get the big picture first, and take care not to get bogged down in the details too quickly. Try to find and flag:

- Previous permit and fact sheet
- Most recent permit application
- Current permit and fact sheet
- RP and limit calculations (if not in fact sheet)
- Administrative record information (e.g., public notice, response to comments)

If anything is missing, make a note and follow up with state staff.

After identifying the key components of the record, try to follow the chronology of the permit application and development. The permit review checklists should lead you through this process.

- Review the permit application to confirm it was submitted on time, and contained all required data and information. Note any correspondence that may have affected the application process.
- Review the fact sheet to see if it describes the permit development process.
- Review any comments and response to comments to see how these may have influenced the permitting decisions.
- Review the final permit to ensure that it is consistent with the fact sheet and response to comments.

- Check the administrative elements to ensure that the permit was properly noticed and that all comments were appropriately addressed.

Depending on where and how the RP and limit calculations are located (e.g., in the fact sheet, supplemental spreadsheets, WQ memos or reports), try to work through the logic of the limit calculation process. The fundamental question to answer is: “Can I recreate the limits in the final permit based on the information provided in the record?” The permit review checklists should lead you through this process. Some specific things to assess include:

- How did the state decide what pollutants to evaluate?
- Does the record explain how TBELs were developed (e.g., ELG applicability, production data used, BPJ applicability)
- What data was used for the RP calculations?
- How was ambient/background data incorporated?
- What dilution/mixing assumptions were used?
- Do the calculations or spreadsheets follow accepted EPA or state WQS implementations procedures?
- Are final limits established for all pollutants where RP was determined?
- Are final limits consistent with values calculated in the supporting documents?
- Is the state’s process transparent and reproducible?

Throughout the review process, use the permit review checklist to make notes and flag issues or concerns identified during the review. Don’t forget to note where the state has done a particularly good job addressing a particular issue.

3.4 Compile preliminary findings and develop conclusions

Upon completing a permit file review, reviewers should take some time to summarize their findings in order to provide input to develop conclusions and proposed action items. For each permit reviewed, note the highlights and deficiencies. Once all permits have been reviewed, Regions should take time to review notes from all permit reviews; trends may be seen across the permits reviewed, these trends are generally the findings of the PQR. Regions will compile the findings for each permit, identify overall trends observed during the permit review, and generate questions for additional clarification during the close-out interview.

3.5 Conduct close-out interview

Upon completing the file reviews and discussion with supporting reviewers, regions should reconvene with state staff to discuss preliminary findings from the permit review, generated from both the desktop review and state visit review. The close-out presents observed strengths of the NPDES program as well as areas requiring improvement in order to strengthen the NPDES program. It is a discussion; therefore, the state has ample opportunities to respond to

EPA's findings and clarify, if necessary. During the close-out interview, EPA also presents the timeline for next steps.

In preparing for the close-out interview, it is helpful to follow the format of the final report in presenting information:

- A. Basic Facility Information and Permit Application
- B. Technology-based Effluent Limitations
- C. Water Quality-Based Effluent Limitations
- D. Monitoring and Reporting
- E. Special and Standard Conditions
- F. Administrative Process
- G. Documentation

For each of these areas, summarizing program strengths and critical findings is helpful in organizing review findings for the final report. Additional tips on preparing for and conducting the close-out interview can be found in the State Visit Packet (Attachment M). A summary of the close-out interview should be prepared and submitted to EPA Headquarters within 7 days of the site visit.

4.0 Report Development

Once permit reviews and state visits are complete, EPA will draft a report providing a summary of findings and recommendations from the core, national and regional topic area reviews. The report will include draft recommendations for improving the quality of permits within specific states or permitting authorities. The report should be developed based on the NPDES PQR Report Template (Attachment K) and Report Template Companion (Attachment L).

4.1 Finalizing the Report

Once the report has been written and reviewed for grammar and consistency, a draft report should be submitted to EPA headquarters for a short review. EPA headquarters will review reports completed for all states to ensure national consistency in categorization of issues across all states and territories. The region should make any necessary edits to address comments from headquarters before providing the draft report to the state. The state will review the report for accuracy and provide comments or clarification if needed. After the state's review and any resulting revisions made by the region, the draft final report will be submitted to EPA headquarters for a second review, then sent to back to the region for finalization.

To finalize the report, ensure that all comments are incorporated, all issues are adequately summarized, that the formatting is consistent and that all sections of the report are grammatically correct, in accordance with the *EPA Communications Stylebook*¹. At this point, the region should begin to compile all appropriate appendices, and save the report and all attachments as a .pdf file. This file should then be shared with EPA headquarters and the state permitting office. EPA headquarters will post all final PQR reports on the PQR website.

EPA headquarters will have significant involvement in the report review process as regions are producing their first few reports, and then plans to streamline the review steps once the report-writing process is more established.

Important! Keep in mind that the findings report summarizes findings at the time of the review. If the state has taken corrective action on any issues, make a note of it in the report but do not remove it from the report. It was an observed finding at the time of the review, and the report should reflect that.

4.2 Action Item Tracking

Action items identified as part of the PQR will be tracked through EPA's action item database, and as a GPRA measure to ensure the continued improvement of state permitting programs. Action items are updated halfway through the fiscal year (March or April) and at the end of the fiscal year.

¹ Available at: <http://www.epa.gov/stylebook/>

Appendix 1: Central Tenets of the National Pollutant Discharge Elimination System (NPDES) Permitting Program

I. Permit Administration	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>The Clean Water Act (CWA) and NPDES regulations require that no point source may discharge pollutants to Waters of United States without explicit authorization provided by an NPDES permit. Complete applications must be submitted at least 180 days prior to discharge or expiration. Additionally, NPDES permit terms may not exceed 5 years. NPDES permits must clearly state the permit term and may not be modified to extend the permit term beyond 5 years. The NPDES regulations also require “fact sheets” for all major facilities, general permits, and other permits that may be subject to widespread public interest or raise major issues. Fact sheets MUST contain all of the elements prescribed at 40CFR124.8 AND 40CFR124.56.</p>	<ul style="list-style-type: none"> – Any facility that fails to submit a complete permit application at least 180 days prior to discharge or expiration – Any permit that does not clearly identify the permitted facility and describe the authorized discharge location(s) – Any permit with term > 5 years – Any permit modification that extends the permit term beyond 5 years – Any permit (for a major facility, general permit, et al.) that is not accompanied by a fact sheet developed in accordance with the requirements of 40CFR124.8 and 40CFR124.56.

II. Technology-Based Effluent Limits	
Municipal Dischargers - Publicly Owned Treatment Works (POTWs)	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>CWA requires POTWs to meet secondary or equivalent to secondary standards (including limits for BOD, TSS, pH, and percent removal). Permits issued to POTWs, therefore, MUST contain limits for ALL of these parameters (or authorized alternatives) in accordance with the Secondary Treatment Regulations at 40 CFR Part 133.</p>	<ul style="list-style-type: none"> - Any permit that does not contain <u>specific numerical limits</u> for BOD (or authorized alternative; e.g., CBOD), TSS, pH, and percent removal. - Any permit that contains limits less stringent than those prescribed by the Secondary Treatment Regulation at 40 CFR Part 133, unless authorized by the exceptions noted in this regulation. - Any permit that applies these exceptions must clearly document the basis. - Any permit that contains a compliance schedule that extends a statutory deadline for meeting secondary treatment requirements.
Non-Municipal Dischargers	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>The CWA requires permits issued to non-municipal dischargers to require compliance with a level of treatment performance equivalent to “Best Available Technology Economically Achievable (BAT)” or “Best Conventional Pollutant Control Technology (BCT)” by July 1, 1989, for existing sources, and consistent with “New Source Performance Standards (NSPS)” for new sources. Where effluent limitations guidelines (ELG) have been developed for a category of dischargers, the technology-based effluent limits MUST be based on the application of these guidelines. In addition, if pollutants are discharged at treatable levels and ELGs are not available, or for pollutants that were not considered during the development of an applicable ELG, the permit must include requirements at least as stringent as BAT/BCT. The performance level equivalent to BAT/BCT MUST be developed on a case-by-case basis using the permit writer’s best professional judgment in accordance with the criteria outlined at 40CFR125.3 (d).</p>	<ul style="list-style-type: none"> - Any permit that does not include a specific numerical limit (or other requirement) for any pollutant parameter that is part of an ELG applicable to a discharger. - Any permit that misapplies or miscalculates an applicable limit required by an ELG (e.g., <i>improper categorization, improper new source/existing source determination, inappropriate production or flow data used to calculate limits, failure to adjust limits to account for unregulated waste streams such as non-contact cooling water or storm water</i>). - Any permit that does not contain a limit at least as stringent as required by 40CFR125.3(c)(2) where effluent limitations guidelines are inapplicable (e.g., <i>where a pollutant is discharged at treatable levels, but there is no applicable ELG, or the applicable ELG did not consider the pollutant of concern</i>). - Any permit that contains a compliance schedule that extends a statutory deadline for meeting a technology-based effluent limit.

III. Water Quality-Based Effluent Limits	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>CWA requires every State to develop water quality standards to protect receiving water, including designated uses, water quality criteria, and an anti-degradation policy. The NPDES regulations at 40 CFR 122.44(d) require that limits MUST be included in permits where pollutants will cause, have reasonable potential to cause, or contribute to an exceedance of the State’s water quality standards. States will likely have unique implementation policies for determining the need for and calculating water quality-based effluent limits; however, there are certain tenets that may not be waived by these State procedures. These include:</p> <ul style="list-style-type: none"> – Where valid, reliable, and representative effluent data or in-stream background data are available they MUST be used in applicable reasonable potential and limits derivation calculations. Data may not be arbitrarily discarded or ignored. – Where calculations indicate reasonable potential, a specific numeric limit MUST be included in the permit. Additional “studies” or data collection efforts may not be substituted for enforceable permit limits where “reasonable potential” has been determined. – Where the preponderance of evidence clearly indicates the potential to cause or contribute to an exceedance of State water quality standards (even though data may be sparse or absent), a limit MUST be included in the permit (e.g., a new POTW plans to chlorinate its effluent and in-stream chlorine toxicity is anticipated). – Where a technology-based limit is required (due to an ELG or BPJ) AND the limit is not protective of water quality standards, a WQBEL MUST be developed and included in the permit regardless of whether data indicate reasonable potential (i.e., a technology-based limit cannot authorize a discharge that would result in a violation of water quality standards). – Where the permit authorizes the discharge of a pollutant that results in a new or increased load to the receiving water, the State must ensure that the new or increased load complies with the anti-degradation provisions of the State’s water quality standards. – The final calculated limit placed in the permit MUST be protective of water quality standards, and MAY NOT be adjusted to account for “treatability” or analytical method detection levels. 	<ul style="list-style-type: none"> – Any permit where the State fails to use all valid, reliable, and representative effluent or in-stream background data in reasonable potential and limits calculations. – Any permit where the State fails to include a final enforceable limit in a permit where the discharge of a pollutant will cause, have reasonable potential to cause, or contribute to an exceedance of a State water quality standard. – Any permit that fails to incorporate WLAs from an approved TMDL, or that contains a limit that is not consistent with the WLA prescribed in an approved TMDL – Any permit that contains technology-based limits that are not protective of water quality standards – Any permit that modifies a properly developed WQBEL to account for the ability of treatment to achieve the WQBEL or the availability of an analytical procedure to measure the presence of the pollutant – Any permit that authorizes new or increased loading of a pollutant that is not in compliance with the State’s anti-degradation policy – Any permit that contains a limit less stringent than a limit in the previous permit, unless specifically authorized under the anti-backsliding provisions of the CWA – Any permit that allows a variance of a State water quality standard, unless the variance has been approved by the EPA Region. – Any permit that allows a new or increased loading of a pollutant to a receiving water that has not been evaluated for and shown to be in compliance with the anti-degradation provisions of the State’s water quality standards regulations. – Any permit that includes a compliance schedule for meeting a WQBEL, unless the State standards specifically allow for compliance schedules and the standard was established or modified after July 1, 1977.

IV. Monitoring and Reporting Conditions	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>The CWA and NPDES regulations require permitted facilities to monitor the quality of their discharge and report data to the permitting authority. Each State will have unique policies and procedures to establish appropriate frequencies, procedures, and locations for monitoring; however, there are certain tenets that may not be waived by these procedures.</p>	<ul style="list-style-type: none"> – Any permit that does not require at least annual monitoring for all pollutants limited in the NPDES permit, unless the permittee has applied for and been granted a specific monitoring waiver by the permitting authority, and this specific waiver is included as a condition of the permit. – Any permit that does not require monitoring to be performed at the location where limits are calculated and applied (i.e., the monitoring location cannot be at a location that includes flows that were not accounted for in limits development; e.g., cooling water, storm water). – Any permit that does not require that the results of all monitoring of permitted discharges conducted using approved methods, be submitted to the permitting authority.

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V. Special Conditions	
Municipal Dischargers - Publicly Owned Treatment Works (POTWs)	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>In general, special conditions will be established based on the unique characteristics of the permitted facility. The appropriateness of these conditions, therefore, must be assessed on a case-by-case basis. However, there are certain elements of special conditions that may be the basis of an objection.</p>	<ul style="list-style-type: none"> – <u>Pretreatment</u>: Any permit for a POTW required to implement a pretreatment program that does not contain specific pretreatment conditions. [State/Regional-specific language] – <u>Municipal Sewage Sludge/Biosolids</u>: Any permit that does not contain conditions addressing the facility’s use/disposal of biosolids consistent with Federal requirements. [State/Regional-specific language] – <u>Combined Sewer Overflows (CSO)</u>: Any permit for a facility authorized to discharge from CSOs, that does not comply with the State’s CSO control policy and, at a minimum contain requirements for: <ul style="list-style-type: none"> ○ Requiring compliance with all of the “Nine Minimum Controls” ○ Requiring development and implementation of a “Long Term Control Plan” – <u>Sanitary Sewer Overflows (SSO)</u>: Any permit that authorizes the discharge of untreated effluent from SSOs under any circumstances.
Municipal and Non-Municipal Dischargers	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>In general, special conditions will be established based on the unique characteristics of the permitted facility. The appropriateness of these conditions, therefore, must be assessed on a case-by-case basis. However, there are certain elements of special conditions that may be the basis of an objection.</p>	<ul style="list-style-type: none"> – Any permit that contains a compliance schedule that extends a CWA deadline or otherwise modifies or postpones CWA or NPDES requirements unless specifically provided for in the statute or regulations. – Any permit that uses special studies or management plans to replace or modify limits or conditions that are required by the CWA or NPDES regulations, unless specifically provided for in the CWA or NPDES regulations (<i>e.g., permit requires a monitoring program in lieu of establishing a permit limit where available data indicate reasonable potential</i>).

VI. Standard Conditions	
CWA/NPDES Requirements	Conditions Subject to Disapproval
<p>The NPDES regulations at 40 CFR 122.41 and 122.42 require that certain “standard conditions” be placed in all NPDES permits. The regulations allow States to omit or modify these standard conditions ONLY where the omission or modification results in more stringent requirements. For example, the standard condition that allows “bypass” under certain circumstances or the standard condition that allows “upset” to be used as an affirmative defense, may be omitted because the result of the omission is a more stringent permit requirement.</p>	<ul style="list-style-type: none"> – Any permit that does not contain ALL of the standard conditions of 40 CFR 122.41 (unless the omission results in a more stringent condition). – Any permit that modifies the language of the standard conditions (unless the modification results in language that is more stringent than the 122.41 requirement). – Any permit for an existing non-municipal discharger that does not include the notification requirement of 40 CFR 122.42(a) – Any permit for a POTW that does not include the notification requirement of 40 CFR 122.42(b) – Any permit for a Municipal Separate Storm Sewer System (MS4) that does not include the annual reporting requirement of 40 CFR 122.42(c)

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Appendix 2: Sample Permit Selection Spreadsheet

2012 NYS Permit Quality Review

NPDES No.	Permit Name	Reviewer	Draft, Modification, Reissue or Final Permit?	Core Review ¹				National Topics ²				Regional Topics						
				POTW	Non-POTW	Major	Minor	Nutrients	Pre-Rx	PGP	SW	Shale Gas	Data Mgmt	CAFOs	Power	CSO		
ZZ4521451	ABCD WWTP		F	X		X		X									X	
ZZ3214562	Your Town WPCP		F	X		X		X									X	
ZZ1021054	Easyville WPCP		F	X		X		X									X	
ZZ4562147	MY WWTP		F	X		X		X									X	
ZZ6217814	Big Power LLC		F		X	X										X		
ZZ6541238	Major Generating Stat.		F		X	X										X		
ZZ9244781	Super Gen. Stat.		F													X		
ZZ6587459	Town STP		R	X		X												
ZZ7136545	Big City WPCP		M	X		X												
ZZ1288464	That Municipal		M	X		X								X				
ZZ6119451	Main WWTP		F	X		X			X									
ZZ6549321	Great STP		M	X		X												
ZZ1478523	A Gypsum Co.		R	X		X												
ZZ6458123	Any WWTP		F	X		X			X									
ZZ9874611	National Brand Foods		F	X		X			X									
ZZ1328463	Tiny WWTP		R	X		X											X	
ZZ1235412	Serious WWTP		F	X		X											X	
General Permits																		
GP-0-11-001	Pesticide GP		F															
GP-XXXXX	Hydrofracking GP		D								X							
GP-04-02	CAFO Permit 1		R														X	
GP-09-001	CAFO Permit 2		F														X	
GP-0-10-001	Construction GP		F															
GP-0-10-002	MS4 GP		F															
GP-0-11-009	Multi-Sector GP		F															
Total Permits as of 1/12/2012				12	4	13	3	10	4	1	4	1	4	2	1	2	3	4
Total Permits Required for PQR				6	4	8	2	4	4	4	4	4	4	NA	NA	NA	NA	NA
Total Permits Needed as of 1/12/2012				+6	0	+5	+1	+6	0	NA	0	NA	0	NA	NA	NA	NA	NA

NOTES:

¹Review includes PQR checklist and/or special topic checklists; Review can include final permits issued within 2 years or draft permits for real-time review; draft permits are expected to be only 1 permit is available for use.

²Review includes special topic checklists; 4 permits required per special topic unless general permits are used. NY has a GP for pesticides so only 1 permit is available for use.