

INTRODUCTION

OVERVIEW

Pretreatment Standards are derived from a number of sources. First, the Clean Water Act (CWA) (title 33 of the United States Code [U.S.C.] section 1251 et seq.) requires the U.S. Environmental Protection Agency (EPA) to promulgate Pretreatment Standards and Requirements. EPA has responded by establishing general and specific prohibited discharge standards [Title 40 of the *Code of Federal Regulations* (CFR) 403.5] applicable to all nondomestic users and by promulgating categorical Pretreatment Standards applicable to specific industrial categories [40 CFR Parts 405–471]. In addition, the General Pretreatment Regulations [40 CFR Part 403] require Publicly Owned Treatment Works (POTWs) to develop local limits where necessary to implement the prohibited discharge standards. Finally, states and POTWs always have the option of establishing more stringent requirements if they so choose. Therefore, the pretreatment program is a mixture of federal, state, and local standards and requirements.

The General Pretreatment Regulations require all POTWs with design flows greater than 5 million gallons per day (mgd) and receiving industrial discharges that pass through or interfere with the operation of the POTW, or are otherwise subject to Pretreatment Standards, to develop local pretreatment programs (unless the state government has elected to administer the local program). EPA or a state authorized to implement a state pretreatment program may require other POTWs to implement pretreatment programs. It is assumed for the purposes of this manual that the POTW issuing significant industrial user (SIU) permits has an approved pretreatment program and is, thus, the Control Authority (CA) responsible for administering and enforcing the pretreatment program. The program implementation and enforcement responsibilities are contained in the POTW's National Pollutant Discharge Elimination System (NPDES) permit, and failure to adequately fulfill those activities constitutes an NPDES violation and could subject the POTW to penalties.

States with approved pretreatment programs are responsible for overseeing and coordinating the development and approval of local pretreatment programs. Before state approval, EPA is the Approval Authority (AA) for local pretreatment programs. (NPDES states must receive EPA approval before they can function as Approval Authorities for pretreatment purposes. Before this approval, EPA serves as the pretreatment AA, even where the state issues NPDES permits.) However, states can participate in pretreatment activities even before their state program is approved.

The pretreatment program represents a unique partnership between federal, state, and local regulatory agencies. The AA (EPA or an authorized state) is responsible for ensuring that local program implementation is consistent with all applicable federal requirements and is effective in achieving the National Pretreatment Program's goals. To carry out that responsibility, the AA must ensure compliance with pretreatment program requirements and take responsive actions (e.g., changes to a POTWs' NPDES permit, enforcement) where needed to bring about compliance. The AA has three tools for doing this: (1) the program audit, (2) the Pretreatment Compliance Inspection (PCI), and (3) the CA's annual pretreatment program performance report.

A comprehensive audit is the most effective of the three mechanisms and provides an opportunity to evaluate all aspects of the CA's program. In EPA's view, the CA should audit all approved active POTW pretreatment programs at least once in each 5-year permit term, generally corresponding to an annual audit rate of 20 percent. The audit also provides the opportunity to help the CA build its local program implementation capability. The purpose of an audit is to assess the program's compliance with the regulatory requirements as they were expressed in the NPDES permit. The audit also identifies areas of the CA's program that need to be modified to bring the program into compliance with the regulations. The audit serves several important functions, such as identifying needed changes to the NPDES permit and identifying circumstances that might warrant enforcement actions against the CA. The checklist includes sections for evaluating environmental indicators and investigating the CA's use of pollution-prevention techniques. The auditor could develop recommendations for improving the performance of a CA's program that might be useful in enhancing a CA's program. Thus, the new checklist could help the AA identify program areas where recommendations could be made to increase the effectiveness of the CA's program.

The intent of the sample audit form (included in this document) is to provide an example of the information that should be reviewed during an audit. Some of the data are required by EPA's pretreatment regulations. In such cases, the sample audit form provides the corresponding legal citation. In October 2005, EPA amended its General Pretreatment Regulations (*70 Federal Register* [FR] 60134-60198; October 14, 2005). Those changes referred to as the *Streamlining Rule*, clarified existing requirements under the regulations and revised others to provide additional flexibility to POTWs and its industrial users, among other things, to reduce regulatory burden and simplify compliance. The sample audit form specifically highlights those provisions of the regulations that were part of the Streamlining Rule. The sample audit form also provides examples of other optional pretreatment program information that the

auditor might want to review and highlight during the audit to reflect the varied activities that pretreatment programs implement to achieve their environmental objectives.

The PCI is a tool for the AA to determine the CA's compliance with and enforcement of its approved pretreatment program during the intervening years between audits. The CA submits its annual pretreatment program performance report to the AA. Review of the annual report is also another tool for evaluating the pretreatment program. It supplies basic information on the CA's industrial user (IU) compliance with Pretreatment Standards and local limits and POTW compliance monitoring and enforcement activities during the year. The purpose of the annual report is to provide a relatively brief self-assessment of the POTW's performance in implementing its approved pretreatment program.

Both the pretreatment program itself and the requirements for tracking program implementation compliance have undergone major changes. The October 2005 revisions to the General Pretreatment Regulations (70 FR 60134-60198; October 14, 2005) resulted in additions to local program requirements. That necessitated a revision of the audit checklist. The attached audit checklist replaces the checklist developed in May 1992. The checklist covers all the evaluation components of the previous checklist, but it also looks at other areas including a program's environmental effectiveness and its use of pollution-prevention measures.

PURPOSE

The principal reason for conducting an audit is to assess the CA's program as a whole by reviewing all components and determining the program's overall compliance with regulatory requirements. This is done by examining the discrete portions of the entire program (e.g., legal authority, IU control mechanisms, compliance monitoring, and enforcement) and making an assessment on the basis of how the discrete portions interact to form the whole. The specific objectives to be accomplished by conducting an audit are determining the CA's compliance status with requirements of its NPDES permit, approved program, and federal regulations. Additional information might also be useful in evaluating the adequacy and effectiveness of the program in achieving compliance with those requirements and environmental goals of the program. The audit might also prove helpful in determining whether any modifications have been made to the program and verifying important elements of the CA's program performance reports.

EXPERIENCE NECESSARY TO CONDUCT AN AUDIT

Because the new audit checklist looks at the entire program in extensive detail and examines areas that were previously looked at only on a case-by-case basis, the checklist assumes a high level of pretreatment

program expertise on the part of the auditor. The auditor, consequently, should be familiar with the goals of the pretreatment program, the General Pretreatment Regulations (40 CFR Part 403), categorical standards, and EPA/state policy and guidance. Auditors should also have participated in audits conducted by a senior lead auditor.

It is EPA's policy to ensure that those who lead environmental compliance audits, inspections, or field investigations are properly trained to perform those functions in a legally and technically sound manner. As such, EPA Order 3500.1 establishes an agency-wide training and development program for personnel leading environmental compliance audit, inspections, or field investigations. This order applies to all EPA personnel who lead or oversee the conduct of compliance inspections or field investigation. Furthermore, the order is advisory to state and local agencies. The training program under this order consists of three parts—Occupational Health and Safety curricula, Basic Inspection curriculum, and Program-specific curricula. In addition EPA expects its inspectors to have completed training to develop a good working knowledge of the subject-related problems, regulations, control technologies, and best management practices (BMPs). For further guidance regarding the standard procedures of inspection, see EPA's *NPDES Compliance Inspection Manual* (EPA 305-X-03-004). The manual is at <http://www.epa.gov/compliance/resources/publications/monitoring/cwa/inspections/npdesinspect/npdesinspectnoapps.pdf>.

The auditor should be familiar enough with all aspects of a local pretreatment program to conduct an audit that will collect the data necessary to make a meaningful evaluation of the CA's effectiveness in complying with its program requirements. The absence of an adequate understanding of the program and its requirements undercuts the reliability of the audit. At a minimum, the auditor should be able to do the following:

- Identify the category to which an industry belongs and to develop appropriate permit limits on the basis of the process wastewater discharged. To do this, the auditor should be knowledgeable of the national categorical Pretreatment Standards and local limits.
- Evaluate the adequacy of the control mechanisms issued by the CA to its SIUs. As a result, the auditor should be able to determine whether the control mechanism meets the minimum regulatory requirements and whether they are effective in controlling the discharge of the SIU.
- Evaluate the CA's legal authority for its compliance with regulatory requirements and the ability of the CA to enforce its program throughout its service area. This means that the

auditor should have an understanding of the authorities provided to the CA by its Sewer Use Ordinance (SUO) and state law, including available remedies and procedures for taking action for IU noncompliance. Auditors should also be familiar with issues related to implementing and enforcing a local program across jurisdictional boundaries and approaches to resolving such issues.

- Understand compliance monitoring requirements. Thus, the auditor's knowledge should include appropriate sampling techniques, EPA-approved methods, and proper quality assurance/quality control (QA/QC) and chain-of-custody procedures so that data can be admissible as evidence in enforcement proceedings.
- Conduct a comprehensive pretreatment inspection at IU facilities and be familiar with hazardous waste requirements and spill prevention and control.
- Evaluate the CA's enforcement responses. To do so, the auditor should be knowledgeable of the various types of possible enforcement actions that are available to the POTW, as well as EPA/state policies and guidance on enforcement.
- Assist the CA to determine what pollution-prevention techniques might enhance the local program. The auditor should be knowledgeable of current efforts and policies regarding pollution prevention.
- Evaluate the environmental effectiveness of the program by examining data collected over the years by the CA concerning pollutant loadings, discharges, and other indicators.

PROCEDURES FOR CONDUCTING AN AUDIT

The audit requires extensive preparation, detailed data collection when on-site, and timely follow-up. EPA recommends, in brief, that an auditor include the following major steps, discussed in greater detail below, in conducting an audit:

- Office preparation before going on-site
 - Review the NPDES permit file, enforcement file, pretreatment program file (if available), the latest annual pretreatment report, and the previous PCI findings
 - Review such documents as manufacturers' guides, Resource Conservation and Recovery Act (RCRA) permit list for the municipalities involved, Toxic Release Inventory System (TRIS) data, and so forth, to be familiar with all industries that might contribute to the POTW

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- Notify the CA of the upcoming visit (if appropriate)
 - Update the CA’s Pretreatment Program Status sheets (Attachment A of the Audit Checklist)
 - Request that the CA complete Pretreatment Program Profile sheets (Attachment B of the Audit Checklist)
 - Request that the CA complete an evaluation of its legal authority (Attachment C of the Audit Checklist)
 - Request that the CA have copies of relevant standard operation procedures for pretreatment program implementation (i.e., Enforcement Response Plan [ERP], Industrial Waste Survey [IWS] procedures, BMP programs, and such) available during the audit
 - On-site visit
 - Entry (present credentials)
 - Interview program staff
 - Review SIU files
 - Inspect selected SIUs
 - Review POTW records and files
 - A walk through of the wastewater treatment plant (WWTP), if time allows
 - Conduct closing conference
 - Follow-up
 - Prepare and distribute report
 - Enter Water Enforcement National Data Base (WENDB) data elements or Required ICIS Data Elements (RIDE) or both
 - Determine Reportable Noncompliance (RNC)/Significant Noncompliance (SNC) and enter data
 - Modify NPDES permit (if appropriate)
 - Refer for enforcement (if appropriate).

Preparation

The following describes how EPA recommends that the auditor prepare for the audit. The amount of data to be collected and evaluated during an audit is considerable, and time is limited. Thus, preparing the audit is crucial to the well-focused collection of meaningful data. Preparing the Pretreatment Program Profile data sheets and Status Update sheets that are attached to the audit checklist will help the auditor compile very general program information before he or she goes on-site. EPA recommends that the auditor complete a Pretreatment Program Status Update such as that provided at Attachment A of the Audit Checklist before conducting the audit. The historical program information requested on the Status Update sheets, including the most recent pretreatment program compliance assessment, will help the auditor prepare for the upcoming audit. In addition, the auditor should spend time obtaining information about the industrial contribution to the POTW by reviewing the CA's IWS. The auditor should also review TRIS and RCRA permitting data. After becoming familiar with the industrial picture, the auditor might want to review applicable documents used in developing the National Categorical Pretreatment Standards to familiarize him or herself with the primary industries discharging to the POTW. The auditor should also become familiar with issues affecting the POTW, such as whether the POTW's discharges are subject to total maximum daily loads (TMDLs), whether the POTW is being involved in a Technical Review Evaluation (TRE), or whether the POTW is subject to enforcement actions (e.g., noncompliance with its NPDES permit requirements).

Interview

During the interview portion, the auditor should talk with as many CA personnel as necessary to obtain an accurate picture of how the local program is implemented. Although the pretreatment coordinator might be familiar with proper monitoring procedures, the coordinator might not be completely familiar with how the program's monitoring is *actually* being conducted, particularly in large programs. The auditor should obtain information on what is happening in the field from field personnel. Also, in multijurisdictional situations, the auditor might need to speak with representatives of the contributing jurisdictions to learn how the program is *actually* being implemented in those service areas. The auditor should take detailed notes to document each interview. Also, whenever possible, the auditor should collect supporting documentation to corroborate answers given by the interviewees. For instance, if a CA staff person states that a total of 26 inspections were conducted in the last calendar year, the auditor should request a copy of the CA's log or its equivalent to verify the information.

File Review

Once on-site, the auditor should go through standard NPDES inspection entry procedures and explain to CA personnel what the audit will entail. When the initial entry procedures are complete, the auditor should select IU files and conduct the file review. Files can be chosen in many ways; however, use of the scheme shown in Figure 1 is strongly recommended as best providing a reasonable representation of SIUs regulated under a local program. The auditor should bear in mind that the recommendations are for reviewing SIU files, although non-SIU files can be reviewed for the part of the audit. The auditor will need to exercise his or her best professional judgment to determine the number of both SIU and non-SIU files to review, as well as the time needed to conduct such reviews.

The auditor should select files that demonstrate a representative cross section of the CA's IUs and evaluate both categorical and significant noncategorical IUs and give particular attention to files of SIUs newly added to the program and those with compliance issues (e.g., in SNC, having received escalated enforcement action). In addition, the auditor should evaluate the thoroughness and adequacy of any SIU general control mechanisms, if used, to ensure compliance with the 2005 revisions to the General Pretreatment Regulations (70 FR 60134-60198; October 14, 2005). Furthermore, the auditor should ensure that if the CA has implemented any of the optional provisions promulgated as part of the 2005 revisions to the General Pretreatment Regulations that require special documentation (e.g., documentation of the CA's rationale for granting monitoring waivers and any information submitted by the SIU in its request for a waiver), that the required documentation is maintained in the SIU's file. Special attention should also be given to categorical industrial users (CIUs) without pretreatment but reported to be in compliance with categorical standards. In particular, the auditor should ensure that dilution is not being used in lieu of treating wastewater to comply with Pretreatment Standards. The auditor should also review files for those CIUs whose Pretreatment Standards depend on a number of elements and require more complex calculations (e.g., the Pretreatment Standard is production-based or requires use of the Combined Wastestream Formula [CWF] or Flow-Weighted Averaging [FWA]). Finally, he or she should review some files that were not reviewed during previous audits or inspections.

IU Site Visits

EPA recommends that the auditor conduct at least two IU site visits, but the auditor should use his or her best professional judgment to determine the minimum number of IU site visits necessary for each POTW. IU site visits are often essential to verify information found in the files. They are also helpful in making the IUs aware of the importance EPA places on the local programs. The auditors should also seek input

from the CA to determine which IUs to visit. The auditors should consider visiting IUs with outstanding pollutant prevention programs, innovative processes, or advanced pretreatment systems. Again, the number and types of IUs to be visited should be representative of the program's industrial make-up and based on the time needed for each visit. Furthermore, IU site inspections should help the auditor determine whether the CA is conducting adequate compliance inspections, issuing proper permits to reflect the physical and operational conditions of the IU's facility, and evaluating compliance including correct sampling.

Wastewater Treatment Plant Walk Through

If time allows, the auditor should conduct a walk through of the WWTP. The walk through is helpful in observing if the plant is experiencing any foaming, sludge buildup, unusual odors, unusual color, and any other abnormal events. These could be indicators of noncompatible wastes being discharged from a nondomestic discharger.

Closing Conference

After the file review, IU site visits, interviews, and other evaluations are complete, the auditor should compile all the data obtained to prepare for the closing conference. At the closing conference, the auditor should verbally present his or her initial concerns or observations to the CA. The auditor should make it clear that the concerns or observations are preliminary and subject to change once the data collected have been more thoroughly reviewed. It is important that the auditors clearly articulate that their preliminary concerns or observations are based solely on the information presently available and are subject to change on the basis of new information or upon further review. Furthermore, EPA cautions that the auditors should avoid using the term *findings* because it could lead to confusion. Some enforcement programs routinely use the term finding in *Finding of Violations* letters and in administrative complaints to characterize violations.

Follow-up

Audit follow-up will center on preparing the report and identifying the action necessary to ensure that appropriate changes to the POTW's program occur. The audit might dictate follow-up actions that include revisions by the AA to the NPDES permit, formal enforcement action, or other action. The auditor should analyze the data as quickly as possible and draft the report so that it can be transmitted to the CA in a timely manner. The auditor should also enter any WENDB, RIDE, and RNC data, as appropriate, in the database. In addition, the auditor should complete the appropriate NPDES Compliance Inspection Report

Forms and update the Status Update and Program Profiles. The auditor should handle NPDES permit modifications (e.g., local limits review) and enforcement activities in accordance with EPA Regional/state policy. The auditor should ensure that the observations and concerns from the audit are forwarded to the appropriate NPDES personnel for any modifications to the POTW's NPDES permit.

As mentioned earlier, the audit requires balancing many different data-gathering techniques. By balancing the techniques properly, the auditor will obtain a comprehensive look at the CA's program. The file review and IU site visits are areas that pose the greatest resource burden to the AA. EPA recommends looking at as many files and visiting as many IUs as possible with balance in mind. For example, reviewing 25 files and visiting 2 IUs does not provide the balance that would be achieved by reviewing 15 files and visiting 10 IUs at a medium-sized POTW with 100 SIUs. Although this latter effort requires a greater resource commitment, it provides much more meaningful data.

CHECKLIST STRUCTURE

EPA's recommended audit checklist is divided into the three sections listed below. Regulatory citations are provided for all required program items. Items on the checklist that do not have a corresponding regulatory citation are not required but are recommended because they are useful for evaluating and improving the effectiveness of the program. Comment space is also provided on each item to enable adequate documentation of the findings. An electronic copy of the audit checklist is available on the EPA Web site at www.epa.gov.

Section I: Interview is intended to evaluate the portions of program implementation that could not be evaluated adequately by looking at the IU files. This section also complements the information gained during the file review and IU site visits. The interview is suggested to be conducted first because it enables the auditor to gain some background information of the program, and the auditor can review IU records to verify information collected during the interview.

Section II: File Review evaluates the CA's performance by reviewing the IU records that the CA maintains. Unlike information obtained in interviews, a review of the CA's files provides proof that the CA is either implementing or not implementing its program. If relevant information is not found in the files, the auditor should note this problem as one of the audit findings. The file review also provides a basis on which to select IUs for site visits.

Section III: Observations and Concerns enables the auditor to organize required actions and applicable recommendations that will need to be addressed in the subsequent report. This section is organized to correspond to the subsections in Sections I and II. The areas of concern to consider are listed with corresponding regulatory and checklist question citations. This was done to help the auditor compile all observations and concerns for each area of concern.

Four attachments are appended to the checklist: the Pretreatment Program Status Update, Pretreatment Program Profile, the Legal Authority Review Checklist, and various worksheets that include the IU Site Visit Data Sheet to be used at the auditor's option when conducting IU site visits during the audit; the WENDB Data Entry and RIDE Worksheet; and the RNC Worksheet to be completed as part of the audit follow-up to provide input into the Permit Compliance System (PCS) or Integrated Compliance Information System (ICIS) database. The auditor should complete the Pretreatment Program Status Update before the audit and update it after the audit. Furthermore, the auditor should request that the CA complete the Pretreatment Program Profile and the Legal Authority Review Checklist before the audit. During the audit, the auditor should receive the completed Pretreatment Program Profile and the Legal Review Checklist from the CA along with a copy of all documents used to complete the checklist. The Legal Review Checklist should be completed at least once every 5 years to ensure that the POTW complies with the legal authority requirements of 40 CFR Part 403. Furthermore, a legal review should be conducted whenever there are regulation revisions or if the POTW is experiencing difficulties implementing its SUO (i.e., denied entry for inspections, denied entry for sampling). The auditor should note that by having the CA complete these checklists, it could invoke EPA's self-auditing policy. For more details, see FR Volume 65, No. 70, 19618–19627 (April 11, 2000).

The various worksheets contain both PCS and ICIS worksheets, but the auditors are required to complete only one set of worksheets. Depending on the state's implementation status of ICIS, the auditor should pick the appropriate worksheets to complete. When thoroughly completed, the body of the checklist and its attachments will provide the auditor with the documentation needed to draft the audit report, initiate any corrective and enforcement actions needed, and enter any WENDB, RIDE, and RNC data into the database, as appropriate.

RESOURCES FOR CONDUCTING AUDITS

The resources necessary to conduct audits will vary greatly from program to program. Some variables contributing to different resource needs include size of the POTW; number and size of SIUs; and number

of jurisdictions involved. Those variables will affect preparation time, time on-site, report preparation, and follow-up.