NPDES Compliance Inspection Manual

Chapter 3

EPA Publication Number: 305-K-17-001
Interim Revised Version, January 2017

CHAPTER 3 – DOCUMENTATION/RECORDKEEPING AND REPORTING

Contents

Associated Appendices

A. INSPECTION AUTHORITY AND OBJECTIVES

AUTHORITY AND OBJECTIVES

Statutory Recordkeeping Authority:	Clean Water Act (CWA) Sections 308 and 402
Regulatory Requirements:	Title *40 Code of Federal Regulations (CFR)* Parts 122, 136, 401, 403, 405–471, and 503, as applicable
Inspection Authority:	CWA Section 308

The National Pollutant Discharge Elimination System (NPDES) permit system requires facilities to maintain records and report periodically on the quantity and type of discharged effluent. The permit stipulates recordkeeping and reporting conditions. Evaluations are conducted at selected permitted facilities to determine compliance with permit requirements. The procedures listed below should be used for these routine inspections. If suspected violations are disclosed during the routine evaluation, a more intensive investigation should be conducted.

A review of facility records should determine that recordkeeping requirements are being met. In particular, the following questions should be answered:

- Is facility verifying data being collected as required by the permit?
- Is all required information available?
- Is the information current?
- Is the information being maintained for the required time period?
- Do the records reviewed indicate areas needing further investigation?
- Do the records show compliance?
- Are the records certified?

During the site inspection, the inspector does not have the authority to require the following:

- A specific organizational method for the facility records.
- Facility copies of the records or access to a copier. The inspector should be prepared to make their own copies with a portable scanner/printer or plan to copy the records at a professional copier.

B. EVALUATION PROCEDURES

VERIFICATION, RECORDKEEPING, AND REPORTING EVALUATION PROCEDURES

During the inspection

During the facility site inspection, the inspector should verify the following requirements of the permit:

- The number and location of discharges are as described in the permit.
- All discharges, if permitted, are in accordance with the general provisions of the permit, such as no noxious odors, no visible entrained solids in discharge, no deposits at or downstream of the outfall, no color change in the receiving stream, and no fish or vegetation kills near the outfalls.

The inspector should review the permit to determine recordkeeping and reporting requirements. Throughout the inspection, the inspector should compare facility's operations with the permit to verify that required permit activities are correct, current, and complete. Obtain some of the information needed to verify the permit during the opening conference and compare with the facility permit. This information includes the following:

- Correct name and address of facility
- Correct name and location of receiving waters
- Number and location of discharge points (if any)
- Principal products and production rates (where appropriate)

The inspector should check for records that will verify that notification has been made to the Environmental Protection Agency (EPA) or to the state when: 1) discharges differ from those stated in the permit, 2) a discharge violates the permit, and 3) a bypass has occurred. The inspector should also check to ensure that the facility maintains the appropriate records for a minimum of three years (or five years for sewage sludge). These records may include the following:

- Sampling and analysis data:
  - Dates, times, and locations of sampling
  - Sample types collected
  - Analytical methods and techniques
  - Results of analyses
  - Dates and times of analyses
  - Name(s) of analytical and sampling personnel

- Monitoring records:
  - Discharge Monitoring Reports (DMRs), including information on flow, pH, Dissolved Oxygen (DO), etc., as required by permit. A blank DMR form is included in Appendix L.
  - Original charts from continuous monitoring instrumentation.
  - Verification of the validity of the data on the DMRs. An inspector can perform this verification by tracking the raw data from the laboratory bench sheets or other databases to the final reported DMR entries.

- Laboratory records:
  - Calibration and maintenance of equipment
  - Calculations (i.e., on bench sheets or books)
  - Quality assurance/quality control (QA/QC) analysis data
  - Laboratory standard operating procedures (SOPs)
  - Results of DMR QA studies

- Facility operating records:
  - Daily operating log.
  - Summary of all laboratory tests run and other required measurements, including reference test method used (Inspectors should reference the most recent version of the Standard Methods or 40 CFR Part 136 methods for test procedures).
  - Chemicals used (pounds of chlorine per day, etc.).
  - Weather conditions (temperature, precipitation, etc.).
  - Equipment maintenance completed and scheduled.
  - Equipment downtime and failures.
  - Spare parts inventory.
  - Monitoring equipment calibration records.

- Treatment plant records (required under the Federal Construction Grants program):
  - Plant Operations and Maintenance (O&M) Manual
  - Percent removal records
  - "As built" engineering drawings
  - Copy of construction specifications
  - Equipment supplier manual
  - Data cards (i.e., maintenance records) on all equipment

- Management records:
  - Average monthly operating records
  - Annual reports
  - Emergency conditions (power failures, bypass, upsets, chlorine failure reports, etc.)

- Pretreatment records:
  - Publicly Owned Treatment Works (POTW) and industrial monitoring and reporting requirements.
  - Industrial user discharge data.
  - Compliance status records (IU inspection reports, SNC evaluations, POTW sampling information, etc.).
  - POTW enforcement initiatives and Enforcement Response Plan.
  - POTW procedures listed in 40 CFR 403.8(f)(2).
  - Industrial waste survey information.
- Risk Management Plan (RMP)
- Stormwater Pollution Prevention Plan (SWPPP)
- Self-inspection records
- Spill Prevention Control and Countermeasure (SPCC) Plan

When required, a properly completed RMP, SWPPP, and/or SPCC Plan should be available. The inspector also may gather information on the SPCC and forward this information to the appropriate program office for follow-up action plans.

- Best Management Practices (BMPs) (where required).
- Two types of BMP plans are included in NPDES permits:
  - BMP plans to minimize or prevent release of significant amounts of any toxic or hazardous pollutants to public waters. The plans may discuss general operations and maintenance of the plant, good housekeeping procedures on the facility grounds, and other plans and procedures specific to best management of the facility.
  - Site-specific BMP plans to address particular toxic or hazardous chemicals or other conditions particular to the facility. Site-specific BMP may include procedures, monitoring requirements, construction of barriers such as dikes and berms, or other appropriate measures for solving specific problems.

In addition, inspectors should ensure that sludge records to verify compliance with 40 CFR Part 503 are maintained for a minimum of five years. The facility needs to keep records to be reviewed (such as sludge records and laboratory records) on-site for the inspector.

The inspector should document all inspection activities (see Chapter 2, Section E). Inadequacies, discrepancies, or other problems disclosed during this review may warrant more intensive investigation.

The inspector should validate (or obtain) accurate outfall locational data during the inspection. Locational data includes the precise latitude and longitude of each outfall (including metadata such as source, datum, precision, etc.). EPA collects this information as part of the EPA permit applications for inclusion in ICIS-NPDES. Locational data are becoming increasingly critical for

Agency-wide geospatial applications, including everything from mapping to prioritizing enforcement and permitting efforts.

COMPLIANCE SCHEDULE STATUS REVIEW

If the permit contains a compliance schedule or if the facility is under an enforcement action with a compliance schedule, the inspector should determine:

- Whether the permittee is conforming to the compliance schedule and, if not, whether final requirements will be achieved on time.
- The accuracy of reports relating to compliance schedules.
- The length of delay associated with a construction violation.
- Whether any schedule violations are beyond the control of the discharger.
- Whether requests for permit modifications are valid.

If the permit contains a compliance schedule, only review the schedule in detail if the need becomes apparent during records review and preparation of the inspection plan. Actions to review should include beginning new construction, contract and equipment orders, authorization and financing arrangements, and/or attainment of operational status. The specific compliance schedule actions are described below.

Construction Progress

The inspector must know whether contracts for labor and material have been fulfilled and whether the permittee or the permittee's engineering consultant is monitoring progress. These aspects are extremely important, particularly in plants where numerous contracts are likely for labor and equipment.

If the permittee or the engineering consultant reports that construction or acquisition of equipment is behind schedule, the inspector should:

- Ask to see the permittee's or the resident engineer's progress report and determine whether the report indicates that the final compliance schedule required by the permit can be met.
- If the report indicates that the final date will not be met, advise the permittee that the compliance schedule of the NPDES permit requires the permittee to notify the permit-issuing authority promptly of any possible delay in achieving compliance and of measures taken to minimize the delay.
- Inquire whether the facility superintendent or chief operator and operating personnel are receiving adequate training concerning the operational aspects of the new treatment unit while construction is under way. They must be prepared to perform the essential operating functions when the facility is placed in service.

Construction Contracts and Equipment Orders

The inspector should review the appropriate documents to determine whether the permittee has obtained the necessary approval to begin construction. The inspector should note the start and completion dates (or scheduled delivery dates in service or equipment contracts).

Authorization and Financing

If construction is incomplete, the inspector should determine whether the permittee has the authority and financial capability (mortgage commitments, corporate resolution, etc.) to complete the required structures.

Attainment of Operational Status

If construction has been completed but the facility is not yet operational, the inspector should determine whether the facility is using appropriate procedures to ensure attainment of working status at the earliest possible time. The inspector should verify the following:

- Appropriate self-monitoring procedures that the facility has initiated. It is especially important that the result of operational and effluent quality monitoring be reviewed to determine whether progress is being made toward optimum efficiency in each treatment unit and in the entire plant.
- Appropriate recordkeeping procedures.
- Appropriate work schedules and assignments. (For municipal facilities, the O&M Manual should provide essential guidance.)

POTW PRETREATMENT REQUIREMENTS REVIEW

The inspector must collect specific information to evaluate compliance with pretreatment requirements. A summary of inspector procedures for this review is provided below and for more detail see Chapter 9, "Pretreatment."

As part of the inspection, the inspector must collect information about the POTW's compliance with its approved pretreatment program and applicable regulations, as well as the compliance status of its industrial users (IUs) with categorical pretreatment standards or locally developed discharge limitations. POTW's that do not have an approved pretreatment programs should have pretreatment requirements in its permit, such as the requirement to notify the permitting authority of new significant industrial users in its service area or requirements to prevent pass-through and interference. The inspector should review POTW records to determine the following:

- Whether all the contributing industries, including the number of significant industrial users (SIUs) are accounted.
- Whether all IUs are properly identified and classified.
- Whether IUs have submitted required reports and notifications to the POTW. These include baseline monitoring reports (BMRs), compliance schedule progress reports, 90-day compliance reports, periodic compliance reports, notifications of changed

discharge, potential problem discharges, violation and resampling, and hazardous waste discharge.

- Whether all the contributing IUs are in compliance with applicable standards, such as categorical pretreatment standards, local limits, general and specific prohibitions, etc.
- Whether permits containing all required elements have been issued to significant IUs in a timely manner.
- Whether inspections and sampling (including evaluation of the need for slug control plans) of SIUs are conducted at the required frequency.
- Whether the POTW has notified all affected IUs of classification and applicable standards and requirements, including Resource Conservation and Recovery Act (RCRA) obligations.
- Whether appropriate enforcement actions have been taken against all noncompliant IUs in accordance with the POTW's Enforcement Response Plan and whether the names of all IUs in significant noncompliance are published at least annually.
- Whether contributing IUs with compliance schedules are meeting applicable schedule deadlines and compliance schedule reporting requirements.

IN-DEPTH INVESTIGATIONS

The inspector should conduct an in-depth inspection of a permittee's records and reports to substantiate a suspected violation; to verify self-monitoring data to use as corroborative evidence in an enforcement action; or to confirm apparent sampling, analysis, or reporting discrepancies discovered during the limited inspection. For example, discrepancies warrant an in-depth review if the inspector:

- Suspects the discharge does not meet required standards and no definite operational problems have been established.
- Suspects grossly inaccurate self-reporting data with recordkeeping procedures and/or the filing of reports.
- Suspects the cursory review indicates omissions or laxity in the preparation of records.
- Suspects evidence of falsification of records
- Suspects laboratory review of analytical data indicates errors in QC or data management.

Confer with supervisor for more guidance and assistance as needed in performing an in-depth investigation.

In-depth Investigation Procedures

The following procedures should guide the inspector in conducting an in-depth investigation:

- Determine investigation objective. What is the specific purpose of the investigation?
- Determine information needed. What specific data will substantiate a violation or respond to the investigation objective?

- Determine data source. What records will contain these required data?
- Review inspection authority. Authority to inspect under section 308 is limited to those records required by the permit/regulations.
- Inspect direct and indirect data sources. Examine records likely to provide the required data directly. In the absence of direct data, use indirect sources of information to develop a network of information relevant to the data being sought.
- Take statements from qualified facility personnel. See Chapter 2, Section E, for specific procedures.
- Prepare documentation. Copy and identify all records relevant to the information being sought. See Chapter 2, Section E, for specific procedures.
- Follow confidentiality procedures. Any record inspected may be claimed by the facility as confidential. Treat such records in accordance with EPA procedures. See the discussion on Confidential Business Information in Chapter 2, Section E.

C. VERIFICATION, RECORDKEEPING, AND REPORTING EVALUATION CHECKLIST

This section provides an example of the type of checklist inspectors should use during inspections. The checklist should capture facility information and whether permit conditions are being met, as well as provide documentation for each suspected violation. The purpose of such a checklist is to concisely and thoroughly keep track of all the necessary information. Additionally, when required by regulations, inspectors should ensure records are certified.

A. PERMIT VERIFICATION			
Facility Name and Mailing Address:			
Brief Facility Description:			
Permit Number and Facility Representative:			
Inspection Date and Time, Inspector Names:			
Yes	No	N/A	1. Inspection observations verify information contained in permit.
Yes	No	N/A	2. Current copy of permit is on-site.
Yes	No	N/A	3. Name and mailing address of permittee are correct.
Yes	No	N/A	4. Records accurately identify name and location of receiving waters.
Yes	No	N/A	5. Number and location of discharge points are as described in permit.
Yes	No	N/A	6. All discharges are permitted.
Yes	No	N/A	7. Facility is as described in permit.

Yes	No	N/A	8. Notification was given to EPA/state of new, different, or increased discharges.
Yes	No	N/A	9. Facility maintains accurate records of influent volume, when appropriate.
Yes	No	N/A	10. The facility used Federal Construction Grant funds to build the plant.
B. RECORDKEEPING AND REPORTING EVALUATION			
Yes	No	N/A	1. Maintain records and reports as required by permit.
Yes	No	N/A	2. All required information is available, complete, and current.
Yes	No	N/A	3. Information is maintained for three years (or five years for sewage sludge).
Yes	No	N/A	4. If the facility monitors more frequently than required by permit (using approved methods), these are results reported.
			5. Analytical results are consistent with data reported on DMRs:
Yes	No	N/A	a. The data is transcribed accurately from the bench sheets to the DMRs.
Yes	No	N/A	b. The calculations are performed properly (including loading, averages, etc.).
			6. Sampling and analyses data include:
Yes	No	N/A	a. Dates, times, and location of sampling.
Yes	No	N/A	b. Sample types collected.
Yes	No	N/A	c. Instantaneous flow at grab sample stations.
Yes	No	N/A	d. Name of individual performing sampling.
Yes	No	N/A	e. Analytical methods and techniques.
Yes	No	N/A	f. Results of analyses and calibration.
Yes	No	N/A	g. Dates and times of analyses.
Yes	No	N/A	h. Name of person performing analyses.
			7. Monitoring records include:
Yes	No	N/A	a. Flow, pH, DO, etc., as required by permit.
Yes	No	N/A	b. Monitoring charts maintained for three years (or five years for sewage sludge).
Yes	No	N/A	c. Flowmeter calibration records maintained.
Yes	No	N/A	d. Locational data (latitude and longitude of each outfall).
Yes	No	N/A	8. Laboratory equipment calibration and maintenance records are adequate.
			9. Treatment plant records include (Note—these records are only required for facilities built with Federal Construction Grant Funds):
Yes	No	N/A	a. O&M Manual.
Yes	No	N/A	b. Percent removal records.
Yes	No	N/A	c. "As-built" engineering drawings.
Yes	No	N/A	d. Construction specifications.
Yes	No	N/A	e. Schedules and dates of equipment maintenance repairs.
Yes	No	N/A	f. Equipment supplies manual.
Yes	No	N/A	g. Equipment data cards.
			10. Management records include:

Yes	No	N/A	a. Average monthly operating records.
Yes	No	N/A	b. Annual reports.
Yes	No	N/A	c. Emergency conditions.
			11. Pretreatment records contain inventory of industrial waste contributors, including:
Yes	No	N/A	a. Monitoring data.
Yes	No	N/A	b. Inspection reports.
Yes	No	N/A	c. Compliance status records.
Yes	No	N/A	d. Enforcement actions.
C. COMPLIANCE SCHEDULE STATUS REVIEW			
Yes	No	N/A	1. Permittee is meeting or has met compliance schedule.
Yes	No	N/A	2. Permittee has obtained necessary approvals to begin construction.
Yes	No	N/A	3. Financial arrangements are complete.
Yes	No	N/A	4. Executed contracts for engineering services.
Yes	No	N/A	5. Completed design plans and specifications.
Yes	No	N/A	6. Construction has begun.
Yes	No	N/A	7. Facility superintendent/chief operator and operating personnel have received adequate training on use of the new treatment unit.
Yes	No	N/A	8. Construction is on schedule.
Yes	No	N/A	9. Equipment acquisition is on schedule.
Yes	No	N/A	10. Facility has completed construction.
Yes	No	N/A	11. Operational startup has begun.
Yes	No	N/A	12. Permittee has requested an extension of time.
D. POTW PRETREATMENT REQUIREMENTS REVIEW			
Yes	No	N/A	THE FACILITY IS SUBJECT TO PRETREATMENT REQUIREMENTS.
			1. Status of POTW pretreatment program:
Yes	No	N/A	a. EPA approved the POTW pretreatment program. (If not, is approval in progress?)
Yes	No	N/A	b. The POTW is in compliance with the pretreatment program compliance schedule. (If not, note why, what is due, and intent of the POTW to remedy.)
			2. Status of Compliance with Categorical Pretreatment Standards.
Yes	No	N/A	a. How many POTW IUs, federal or state, are subject to pretreatment standards?
Yes	No	N/A	b. Are these IUs aware of their responsibility to comply with applicable standards?
Yes	No	N/A	c. Has the facility submitted BMRs (403.12) for these industries?
Yes	No	N/A	i. Have categorical IUs in noncompliance (on BMR reports) submitted compliance schedules?

Yes	No	N/A	ii. How many categorical IUs on compliance schedules are meeting the schedule deadlines?
Yes	No	N/A	d. If the compliance deadline has passed, have all IUs submitted 90-day compliance reports?
Yes	No	N/A	e. Are all categorical IUs submitting the required semiannual report?
Yes	No	N/A	f. Are all new industrial discharges in compliance with new source pretreatment standards?
Yes	No	N/A	g. Has the POTW submitted an annual pretreatment report?
Yes	No	N/A	h. Has the POTW taken enforcement action against noncomplying IUs?
Yes	No	N/A	i. Is the POTW conducting inspections of industrial contributors?
Yes	No	N/A	3. Are the IUs subject to Prohibited Limits (403.5) and Local Limits more stringent than EPA in compliance? (If not, explain why, including need for revision of limits.)
Document any issues below:			