

Idaho Pollutant Discharge Elimination System

User's Guide to Permitting and Compliance
Volume 2—~~Sector-Specific Information~~ Publicly Owned
Treatment Works



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Volume 2—~~Sector Specific Information~~ Publicly Owned
Treatment Works

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Table of Contents

Abbreviations and Acronyms	vi
1 Introduction.....	1
1.1 Purpose and Need	1
1.2 Relationship to Existing Rules and Guidance	1
1.2.1 Clean Water Act Background.....	2
1.2.2 Rules Regulating the IPDES Program.....	2
1.2.3 Idaho Water Quality Standards.....	2
1.3 Legislative and Regulatory Citations	2
1.4 Time Computation.....	3
1.5 Hyperlinks	3
2 Defining Publicly Owned Treatment Works (POTW)	3
3 Application Content.....	4
3.1 Part A. Basic Information.....	4
3.2 Part B. POTWs with a Design Flow Greater than or Equal to 0.1 mgd.....	6
3.3 Part C. Reserved	7
3.4 Part D. Expanded Effluent Testing.....	7
3.5 Part E. WET Testing.....	8
3.6 Part F. Industrial User Information (SIU, RCRA, or CERCLA)	9
3.6.1 Significant Industrial User Information.....	9
3.6.2 Pretreatment Standards	10
3.6.3 RCRA Hazardous Waste Received by Truck, Rail or Dedicated Pipeline.....	11
3.6.4 CERCLA, RCRA Remediation/Corrective Action, and other Remedial Waste Activity	12
3.7 Part G. Combined Sewer Systems.....	12
3.8 Part H. Requests	12
3.9 Part I. Other Information	13
4 Understanding Your Permit.....	13
4.1 Discharge Authorization.....	13
4.2 Effluent Limits and Associated Monitoring Requirements.....	13
4.2.1 Annual or Seasonal Average Effluent Limits	14
4.2.2 Narrative Limits.....	14
4.3 Regulatory Mixing Zone	14
4.4 Monitoring.....	14
4.4.1 Influent Monitoring	14
4.4.2 Effluent Monitoring for Parameters without Effluent Limits.....	15

4.4.3	Sewage Sludge.....	15
4.4.4	Receiving Water Monitoring.....	16
4.4.5	Permit Renewal Effluent Monitoring.....	16
4.4.6	Analytical and Sampling Procedures.....	17
4.5	Recording and Reporting Requirements.....	18
4.5.1	DMRs.....	18
4.5.2	Permit Submittals and Schedules.....	18
4.5.3	Notice of New Introduction of Toxic Pollutants from an Indirect Discharger.....	18
4.5.4	Reporting Permit Violations.....	19
4.6	Permit Renewal.....	20
4.7	Special Conditions.....	20
4.7.1	Compliance Schedules and Interim Effluent Limits.....	20
4.7.2	Facility Planning Capacity.....	20
4.7.3	Whole Effluent Toxicity (WET) Testing.....	21
4.7.4	40 CFR Part 403 General Pretreatment Requirements.....	23
4.7.5	Nondomestic Waste Management.....	28
4.7.6	Pretreatment Program Requirements.....	28
4.7.7	Mercury.....	39
4.7.8	Phosphorus Management Plans.....	40
4.7.9	Mixing Zone Study.....	41
4.7.10	Inflow and Infiltration Evaluation.....	41
4.7.11	Spill Control Plan.....	42
4.7.12	Municipal Lagoon Seepage Testing.....	42
4.7.13	Biosolids.....	42
4.7.14	Combined Sewer Systems and Overflows.....	42
4.7.15	Best Management Practices Plan (BMPs).....	42
4.7.16	Water Quality Trading.....	45
4.7.17	Variances, Waivers and Intake Credits.....	46
4.7.18	Other Special Conditions.....	46
4.8	Standard Conditions.....	46
4.8.1	Plans Documents Applicable to all Permits.....	46
4.8.2	Conditions Applicable to all Permits.....	47
5	Other Considerations.....	48
5.1	Facilities with Multiple Water Quality Permits.....	49
5.2	Offsets and Watershed and Bubble Permitting.....	49
5.3	2014 Water Resources Reform and Development Act (WRRDA) Effect on CWA State Revolving Fund (SRF).....	50
6	Permit Compliance and Inspection.....	50

References..... 50
Key Terms..... 52
Endnotes: IDAPA and CFR References 53

List of Tables

Table 1. Effluent testing data requirements for each outfall..... 6
Table 2. Commonly used acute and chronic test species..... 22
Table 3. ~~Industries with pretreatment standards~~ Existing point source categories..... 26
Table 4. Summary of previous reporting year's compliance activities. 37
Table 5. Summary of the upcoming reporting year's planned inspection/monitoring activities.. 37
Table 6. Mercury permit conditions..... 39

List of Figures

Figure 1. Flowchart summarizing the new method ATP application process (adapted from EPA 2016). 17
Figure 2. Typical dilution series. 22

List of Equations

No table of figures entries found.

Abbreviations and Acronyms

§	section (usually a section of federal or state rules or statutes)
CFR	code of federal regulations (refers to citations in the federal administrative rules)
CWA	Clean Water Act
DEQ	Idaho Department of Environmental Quality
EPA	United States Environmental Protection Agency
gpd	gallons per day
I&I	inflow and infiltration
IDAPA	Idaho Administrative Procedures Act; refers to citations of Idaho administrative rules
IPDES	Idaho Pollutant Discharge Elimination System
NOI	notice of intent
NPDES	National Pollutant Discharge Elimination System
POTW	publicly owned treatment works
TIE	Toxicity Identification Evaluation
TBEL	technology-based effluent limit
TRE	Toxicity Reduction Evaluation
WQBEL	water quality-based effluent limit
WQS	water quality standard

1 Introduction

The Idaho Department of Environmental Quality's (DEQ's) Idaho Pollutant Discharge Elimination System (IPDES) Program developed ~~this the User's Guide to Permitting and Compliance~~ guidance ~~volumes~~ to help the regulated community and other public users easily understand the IPDES permitting and compliance process and the IPDES statutory and regulatory requirements for ~~each permitted sector. These sectors include~~ publicly owned treatment works (POTWs), pretreatment, industrial, storm water, sewage sludge (biosolids), and facilities covered by IPDES general permits. This User's Guide to Permitting and Compliance Volume 2 (User's Guide Volume 2) provides assistance ~~specifically~~ to Idaho's municipalities, industries ~~discharging to POTWs~~, and citizens on complying with IPDES ~~POTW~~ permits, DEQ administrative rules, Idaho Code, and the Clean Water Act (CWA), which govern the discharge of pollutants to waters of the United States in Idaho.

1.1 Purpose and Need

This guide serves as a reference for successfully navigating the IPDES permitting and compliance process as it pertains to ~~each permitted sector~~ ~~POTWs and industries discharging to POTWs~~. Additionally, this guide is designed to help the regulated community (applicants and permittees) and other users:

- Understand ~~sector~~ ~~POTW~~-specific IPDES permit application ~~or notice of intent (NOI)~~ processes and requirements,
- Understand ~~sector~~ ~~POTW~~-specific IPDES permit development processes and permit conditions, and
- Comply with all processes, protocols, and requirements of ~~sector~~ ~~POTW~~-specific IPDES permits.

1.2 Relationship to Existing Rules and Guidance

This User's Guide Volume 2 ~~is not intended to be a stand-alone document; rather, it~~ supports implementation of the CWA, Idaho Code and administrative rules, federal regulations, and state and national policies, guidance, and standards. These include compliance with Idaho's "Water Quality Standards" (IDAPA 58.01.02), "Wastewater Rules" (IDAPA 58.01.16), and "Rules Regulating the IPDES Program" (IDAPA 58.01.25).

More specifically, Volume 2 supplements DEQ's User's Guide to Permitting and Compliance Volume 1—General Information (DEQ 2017a). Volume 2, however, addresses detailed ~~sector~~ ~~POTW~~-specific topics and circumstances that are not described in Volume 1 or other IPDES guidance.

Some sections of this guide are newly developed to address rules, regulations, and conditions specific to Idaho, while other sections reference or represent an adaptation of numerous existing state and US Environmental Protection Agency (EPA) guidance documents, as appropriate.

While this guide provides direction in many cases, DEQ may have to adjust permit-specific aspects to address site-specific concerns and conditions. These considerations may include compliance with Idaho's "Water Quality Standards" (IDAPA 58.01.02), "Wastewater Rules"

(IDAPA 58.01.16), “Rules Regulating the IPDES Program” (IDAPA 58.01.25), and additional state and federal guidance. Further, this guide does not replace, supplant, or change any requirements under state or federal rules and regulations but does identify and reference relevant regulations, policy, and other guidance documents. A detailed discussion regarding the CWA, federal code, and Idaho Code and administrative rules that support the IPDES Program is included in *User's Guide to Permitting and Compliance Volume 1*, section 2 (DEQ 2017a).

1.2.1 Clean Water Act Background

The Federal Water Pollution Control Act, or CWA, is the primary US law addressing pollutants in receiving waters (e.g., streams, rivers, lakes, and reservoirs). The CWA was originally enacted in 1948 and was revised by significant amendments in 1972 (P.L. 92-500), and to a lesser degree in 1977 (P.L. 95-217) and in 1981 (P.L. 97-117). The most recent major amendments to the CWA were made in 1987 (P.L. 100-4). A major part of the CWA is a requirement for controls on discharges to meet the statutory goal of eliminating the discharge of pollutants under the National Pollutant Discharge Elimination System (NPDES) permit program.

1.2.2 Rules Regulating the IPDES Program

“Rules Regulating the IPDES Program” (IDAPA 58.01.25) establish the procedures and requirements for the issuance and maintenance of permits for facilities or activities required by Idaho Code and the CWA to obtain authorization to discharge pollutants to waters of the United States. These permits are referred to in these rules and guidance as “IPDES permits” or “permits.”

1.2.3 Idaho Water Quality Standards

A water quality standard (WQS) defines the water quality goals for a water body. Water quality-based effluent limits (WQBELs) in IPDES permits are a mechanism to achieve and maintain WQS in specific receiving waters. The federal rules regulating WQS at 40 CFR 131 describe state requirements and procedures for developing WQS and EPA procedures for reviewing and, where appropriate, promulgating WQS. Idaho's WQS were developed in accordance with these federal requirements.

1.3 Legislative and Regulatory Citations

In this guide, the following conventions are used to cite legislation and regulations:

- Idaho Code—Title of the code follow by the code citation: “Approval of State NPDES Program” (Idaho Code §39-175C). After initial use, the code is then referred to by the citation (e.g., Idaho Code §39-175C).
- Idaho Administrative Rules—Title of the rule is followed by the rule citation: “Rules Regulating the Idaho Pollutant Discharge Elimination System Program” (IDAPA 58.01.25). After initial use, the rule is then referred to by the rule citation (e.g., IDAPA 58.01.25).
- Code of Federal Regulations—Initial and subsequent references to CFRs use the regulation citation (e.g., 40 CFR 136).
- US Code—Initial and subsequent references to US code use the code citation (e.g., 16 U.S.C. §1531 et seq. or 33 U.S.C. §§1251–1387).

- Clean Water Act (CWA)—Title of the act is followed by the act citation: Clean Water Act section 402 (e.g., CWA §402). After initial use, the act is then referred to by the act citation (e.g., CWA §402).

Most regulatory citations in this guide are from the “Rules Regulating the IPDES Program” (IDAPA 58.01.25) and CFR Title 40. Other rules and regulations are explicitly referenced in full citation when used for the first time in this guide. Applicable IDAPA and CFR references are included as endnotes after the appendices.

1.4 Time Computation¹

Throughout this guide, references to days represent calendar days, unless specified otherwise (e.g., business days). In computing any period of time scheduled to begin after or before the occurrence of an activity or event, the date of the activity or event is not included. The last day of the period is included, unless it is a Saturday, Sunday, or legal holiday, in which case the period runs until the end of the next day (which is not a Saturday, Sunday, or holiday). When a party or interested person is served by mail, three (3) days are added to the prescribed time.

1.5 Hyperlinks

Websites provide supplementary information and are referenced in this guide. The website address appears in blue italics so that readers can access the reference in printed and electronic versions of this document. In the electronic version, the website address is hyperlinked to the site. Correct website addresses and hyperlinks are provided; however, these references may change or become outdated after publication.

2 Defining Publicly Owned Treatment Works (POTW)

This section guides helps the reader through topics related to permitting of publicly owned treatment works (POTWs)².

Municipal sewage may also contain liquid industrial wastes discharged to the POTW from industrial users (IUs). POTWs must serve as control authorities over the IUs discharging to the POTW. As designated by DEQ, privately owned treatment works that primarily treat domestic sewage will have permit conditions similar to those issued to POTW, and consequently, they must complete those application sections pertinent to POTW, including any IU information³.

As a result, for the IPDES program and requirements of this application guide, the term POTW includes:

- Publicly and privately owned treatment works predominantly treating domestic sewage,
- Domestic sewage treatment works,
- Sewer districts, and
- Any other dischargers designated by DEQ.

3 Application Content

POTWs that primarily treat domestic sewage need to complete and submit a POTW application on the IPDES E-Permitting System. If a POTW does not have internet access, **then** they must contact DEQ to apply for a waiver from electronic reporting. Applicants should also request paper copies of all pertinent application forms and instructions well in advance of the minimum time required to submit an application.

POTWs must provide general application information identified in *User's Guide to Permitting and Compliance Volume 1, Section 4.2* (DEQ 2017a), which is required for all discharges to surface water. For EPA-issued NPDES permits, this information is required in *Form 1: General Information*, and includes:

- Owner and operator contact information
- Facility physical location and description
- Identification of other federal or state permits associated with the facility
- Information to ensure compliance with IDAPA 58.01.25.103, Permit Prohibitions

In addition to information identified in *User's Guide to Permitting and Compliance Volume 1, Section 4.2* (DEQ 2017a), the following sections identify information specific to POTW applicants that will be required depending on size and waste characteristics. Refer to the IPDES *POTW Permit Application Instructions* (DEQ 2017b) for additional details on the information required. The sections and headings below reflect the POTW permit application sections and instructions available on the IPDES E-Permitting System and generally follow the EPA NPDES Form 2A application for POTWs.

3.1 Part A. Basic Information

Part A. *Basic Information* of the POTW permit application is required for all POTW applicants. These sections are as follows:

- POTW's current NPDES/IPDES permit status
- Areas/population served, type of collection system, and ownership status of each portion of the collection system
- POTW design flow, annual average daily flow, and maximum daily flow rates
- Collection system percent contribution by system type
- Effluent discharge and disposal locations (e.g., discharge points, discharge to impoundments, and land application)
- Contract operator responsibilities and contact information
- Outfall location and flow information (e.g., latitude and longitude, distance from shore, and intermittent/periodic)
- Receiving water name, critical flows, and hardness (if applicable)
- Treatment type classification and pollutant removal efficiencies
- Basic effluent testing information

The applicant's response to whether the POTW is currently covered under an NPDES/IPDES permit (not a new source or new discharger⁴) determines subsequent sections of the permit application that need to be completed. A new source or new discharger that is not currently operating would not be able to collect expanded effluent testing (section 3.4) or WET (whole

effluent toxicity) testing (section 3.5) data, and does not complete application sections 3.4 and 3.5 regardless of their POTW facility size or category.

Applications must identify the total population that the POTW serves. Applicants must also provide the equivalent dwelling units (EDUs) for each area served. POTWs are charged an annual fee per EDU that the POTW serves. Annually, if the POTW does not provide EDUs, DEQ will calculate the number of EDUs and resulting annual fees using the most recent US Census Bureau statistics for the average number of people per household for Idaho. Refer to the User's Guide Volume 1, section 3.3.1 for the IPDES fee schedule details and example calculations.

The *Discharge and Disposal* section requires the applicant to identify the number of discharge points and other information for:

1. Effluent discharges to waters of the United States, the applicant provides the location, number, and types of outfalls used.
2. Land application of treated wastewater (recycled wastewater), the applicant provides the location and size of the site, the average daily volume applied, and schedule of application.
3. Effluent sent to another facility for treatment before discharge, the applicant must provide the average daily flow rate as well as the transport method and destination.
4. Effluent discharged in another manner, including underground percolation and underground injection, the location and size of the disposal site, schedule of disposal, and the annual average daily volume disposed must be provided.

Application Effluent Monitoring Requirements Based on Size and Category

All applicants that discharge effluent to waters of the United States must provide effluent testing data for each outfall from at least three effluent scans representative of the discharge from the sampled outfall during the permit cycle. A scan is one sampling event where grab samples or a composite sample is collected. At least two of the scans must be more than four months and no more than 8 months apart.

This section of the application requires all applicants to enter basic effluent testing information for design flow, pH, *E. coli* or fecal coliform, temperature, total suspended solids (TSS) and 5-day biochemical oxygen demand (BOD₅) or 5-day carbonaceous biochemical oxygen demand (CBOD₅). Refer to Table 1 and your current permit to determine which effluent testing information questions you must complete in various sections of the permit application.

For cyanide, total phenols, oil and grease, *E. coli* and volatile organics; the permittee must collect a minimum of four grab samples (the results of which will be averaged) for each scan. Grab samples must be a minimum of 100 mL collected randomly for a period of time not exceeding 15 minutes. Temperature, pH, and residual chlorine may be obtained from grab samples or from calibrated and properly maintained continuous monitors. For all other pollutants sampled for application effluent monitoring, the permittee must collect at least one 24-hour composite sample for each scan. Composite samples must be derived from two or more discrete samples collected at equal time intervals or collected proportional to the flow rate over the compositing period.

Table 1. Effluent testing data requirements for each outfall.

POTW Characteristics	Permit Application Sections to Complete
Design flow rate less than 0.1 mgd <i>and</i> not required to develop or does not have an approved pretreatment program	A.12. <i>Effluent Testing Information</i>
Design flow rate greater than 0.1 mgd but less than 1 mgd <i>and</i> not required to develop or does not have an approved pretreatment program	A.12. <i>Effluent Testing Information</i> and B.6. <i>Effluent Testing Data</i> —greater than or equal to 0.1 mgd
Design flow rate greater than or equal to 1 mgd <i>or</i> required to develop or has an approved pretreatment program, <i>or</i> otherwise required by DEQ to provide the data	A.12. <i>Effluent Testing Information</i> , B.6. <i>Effluent Testing Data</i> —greater than or equal to 0.1 mgd, and Part D. <i>Expanded Effluent Testing Data</i>

At the end of this application section, the applicant will select conditions from the following list that apply to the POTW:

- Flow is ≥ 0.1 mgd.
- Flow is ≥ 1.0 mgd.
- Has or is required to develop an approved pretreatment program.
- Required expanded effluent testing.
- Required WET testing.
- Accepts significant industrial user discharge or Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) waste.
- Has a combined sewer system.
- Has sewage sludge.

The selections identified in this list determine which of the other application sections must be completed.

3.2 Part B. POTWs with a Design Flow Greater than or Equal to 0.1 mgd

Part B is required⁵ for POTWs with design flows greater than or equal to 0.1 mgd. The POTW must provide the currently estimated rate of inflow and infiltration (I&I) entering the collection system and any steps taken or being planned to minimize I&I. Other information obtained in this section includes a POTW facility map, a process flow diagram or process schematic, identification of any scheduled POTW facility improvements, and additional effluent testing data.

The applicant will upload a map of the POTW including treatment processes covered by the permit and surrounding area. This map, or maps, should be topographic, if possible, and include the following:

- The area surrounding the POTW, including all unit processes.
- Wells, springs, other surface water bodies, and drinking water wells that are:
 - (1) within ¼ mile of the property boundaries of the POTW, and
 - (2) listed in public record or otherwise known to the applicant.
- The major pipes or other structures through which wastewater enters the POTW and the pipes or other structures through which treated wastewater is discharged from the POTW. Include outfalls from bypass piping, if applicable.

- Sewage sludge management facilities (including treatment, storage, and disposal sites).
- If the POTW receives waste that is classified as hazardous under RCRA by truck, rail, or special pipe, **then** show on the map where that hazardous waste enters the POTW and where it is treated, stored, and/or disposed.
- Each well where wastewater from the POTW is injected underground.

The application includes a section to upload a process flow diagram that shows all of the POTW's unit processes. These processes include bypass piping, backup power sources, and system redundancies. The diagram must also provide a water balance showing all treatment units, including disinfection, daily average flow rates at influent and discharge points, and approximate daily flow rates between treatment units. The application should also include a narrative description of the process flow diagram. **If the facility has differing treatment options that depend on effluent limits or environmental conditions, then the applicant should upload process flow diagrams and narrative descriptions for each scenario.**

In this section, the applicant will identify any scheduled POTW improvements and include milestone dates of implementation and completion. The applicant will briefly describe permits and authorizations obtained or required by federal or state authorities. If planned improvements are required by local, state, or federal agencies, **then** the applicant will identify the new maximum daily flow rate.

The applicant must enter effluent testing data for each outfall for all pollutants identified in 40 CFR 122 Appendix J, Table 1A. These pollutants include ammonia, total residual chlorine (TRC), dissolved oxygen (DO), nitrate+nitrite nitrogen, total Kjeldahl nitrogen (TKN), oil and grease, total phosphorus (TP), and total dissolved solids (TDS). If a POTW does not use chlorine for disinfection or elsewhere in the treatment process and has no reasonable potential to discharge chlorine in the POTW's effluent, **then** TRC is not required to be sampled or analyzed.

When an applicant has two or more outfalls with substantially identical effluent discharging to the same receiving water segment, DEQ may, on a case-by-case basis, allow the applicant to submit sampling data for only one outfall. DEQ may also allow an applicant to composite samples from one or more outfalls that discharge into the same mixing zone.

3.3 Part C. Reserved

This section of the application is reserved for additional items, if necessary. This section of EPA's Form 2A is for applicant certification. However, because the IPDES POTW applications are electronically submitted unless DEQ has granted the permittee an electronic reporting waiver, the certification and electronic signature processes occur at different times and locations on the web application. Applications must be signed by a certifying official⁶.

3.4 Part D. Expanded Effluent Testing

A POTW that discharges effluent to waters of the United States and meets one or more of the following criteria must complete application Part D. *Expanded Effluent Testing Data*⁷:

- Design flow rate greater than or equal to 1 mgd.; or
- Required to develop or has an approved pretreatment program; or
- Required by DEQ to ensure compliance with IDAPA 58.01.02 and 58.01.25.

Expanded effluent testing includes monitoring for the following categories of pollutants:

- Metals, cyanide, phenols, and hardness
- Volatile organic compounds (VOC)
- Acid-extractable compounds
- Base-neutral compounds
- Other pollutants not specifically listed that are present in the discharge

Applicants must provide data from each outfall discharging to waters of the United States. This data must be composed from a minimum of three representative samples taken within 4.5 years before the date of the permit application. Data collected and reported as required by the current permit may be used, if available, in lieu of sampling done solely for the application.

Sample results from expanded effluent testing required in an EPA-issued NPDES permit can be entered in the IPDES application form. However, IPDES-issued permits may require prior submittal of expanded effluent data; in those cases the applicant does not need to reenter data results at the time of application.

Applicants enter data for each pollutant unless monitoring has been specifically waived in their permit. The average value of results from 3 or more scans is entered for each pollutant. If results for the same pollutant are analyzed using different EPA-approved methods, **then** the permittee should follow the IPDES *POTW Permit Application Instructions* (DEQ 2017b).

3.5 Part E. WET Testing

POTW_s meeting one or more of the following criteria must complete application Part E. *WET Testing*⁸:

- Design flow rate greater than or equal to 1 mgd; or
- Required to develop or has an approved pretreatment program; or
- Required by DEQ to ensure compliance with IDAPA 58.01.02 and 58.01.25

The applicant must submit results of a minimum of four tests performed in the 4.5 year period before the application. Applicants completing Part E. must report the number of chronic and acute WET tests conducted since the last permit issuance and submit the results from any WET tests conducted that have not been reported or submitted to DEQ for each outfall discharging effluent to the waters of the United States.

When an applicant has two or more outfalls with substantially identical effluent discharging to the same receiving water segment, DEQ may, on a case-by-case basis, allow the applicant to submit WET data for only one outfall. DEQ may also allow an applicant to composite samples from one or more outfalls that discharge into the same mixing zone.

The applicant must complete the following for each WET test conducted:

- Test number
- Identify if it is an accelerated test
- Test information (test species, test method number, and test organism)
- Source of test method
- Collection method (grab or 24-hour composite)
- Sample in relation to disinfection (before or after?)

- Point in treatment process where effluent sample was collected
- Toxicity test type (chronic, acute, or both)
- Type of test (static, static renewal, or flow through)
- Source of dilution water (lab water or receiving water)
- Type of dilution (~~this should be~~ fresh water ~~is the~~ only ~~option~~)
- Test series effluent concentrations
- Parameters measured ~~in association with~~ ~~during~~ the test and whether each meets the test method specification (pH, salinity, temperature, ammonia, and DO).
- Test results for acute/chronic toxicity tests
- QA/QC (identify if the test was within acceptable bounds and provide any other QA/QC information requested by DEQ)

New permit applicants or POTWs that were not required to perform WET tests in the previous permit do not need to include WET test information with their permit application.

If the POTW has conducted WET tests and reported its results according to a previous EPA-issued NPDES permit (not an IPDES permit) requirement, then the POTW may note the dates the tests were submitted and provide a summary of the results ~~as required in the permit. that includes the following:~~

- ~~Outfall number and collection dates of the samples taken~~
- ~~Dates of testing~~
- ~~Toxicity testing method(s) used~~
- ~~Summary of the test results (e.g., 100% survival in 40% effluent)~~

When identified as an IPDES permit condition, permittees with active IPDES permits must report the individual WET test results on the IPDES E-Permitting within 30 days of receipt of test results (see the WET permit special condition described in section 4.7.3).

Applicants must also identify whether a WET test conducted during the past permit cycle revealed toxicity. If so, ~~then~~ they must provide accelerated test results and any information about the cause of the toxicity⁹, upload a copy or description of the toxicity reduction evaluation (TRE), if one was conducted, and any results from the toxicity reduction evaluation. If the POTW is conducting a TRE as part of their permit requirement or enforcement order, then applicants only need to provide the date of the last progress report concerning the TRE.

3.6 Part F. Industrial User Information (SIU, RCRA, or CERCLA)

All POTWs receiving discharges from *significant industrial users (SIUs)* or POTWs that receive RCRA, CERCLA, or other remedial wastes must complete Part F. *Industrial User Information*¹⁰.

3.6.1 Significant Industrial User Information

An *industrial user (IU)* is any nondomestic industrial or commercial entity discharging process or nonprocess wastewater that contains pollutants to a POTW. Such facilities include, but are not limited to, industrial, manufacturing, commercial, mining, or storm water runoff. IUs may discharge domestic sewage in addition to industrial wastewater. The number of IUs is the total number of industrial and commercial users that discharge to the POTW.

An *SIU* is defined in 40 CFR 403.3(v) as an IU that:

- Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
- Any other IUs that:
 - Discharges an average of 25,000 gallons per day (gpd) or more of process wastewater to the treatment works (excluding sanitary, non-contact cooling, and boiler blowdown wastewater);
 - Contributes a process waste stream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment works; or
 - Is designated as such by the Control Authority as defined in 40 CFR 403.12(a) on the basis that the IUs has a reasonable potential to adversely affect the treatment works operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

A *categorical industrial user (CIU)* is an SIU that is subject to categorical pretreatment standards¹¹. These effluent limit guidelines (ELG) and standards identify technology-based effluent limits (TBELs) and are standards developed by EPA to set industry-specific effluent limits. A list of industrial categories subject to categorical pretreatment standards is included in Appendix B of the POTW permit application instructions.

Applicants need to provide the following information in Parts F.2 through F.8 of the permit application:

- Whether the POTW has a pretreatment program
- Number of SIUs and CIUs
- Information for each SIU and CIU
 - Name and address of each user
 - Description of all industrial processes that affect or contribute to the SIU/CIU discharge
 - Principal products and raw materials that contribute to the SIU/CIU discharge
 - Average daily discharge contributed to the POTW
 - Whether this daily discharge is continuous or intermittent
 - Amount of discharge attributable to process flow and nonprocess flow
 - Applicable local limits
 - Whether the SIU/CIU is subject to categorical pretreatment standards
 - If subject to categorical standards, all categories and subcategories that apply
 - Any upsets, **interference, or pass through** that the POTW **can** attributed **d** to waste discharged **d** by the SIU/CIU

If the POTW has submitted a pretreatment program application or pretreatment program annual report within 1 year of the application that contains substantially identical information to what the POTW permit application requires, then DEQ may waive submitting this information in the permit application¹².

3.6.2 Pretreatment Standards

A POTW, or a group of POTWs operated by the same entity, with a total design flow of more than 5 mgd and receiving industrial pollutants that may cause pass through or interference are required to establish a pretreatment program under the IPDES Program¹³. In some cases, a

POTW with a total design flow of less than 5 mgd may be required to establish a pretreatment program if the nature or volume of the industrial discharge causes POTW treatment process upsets, effluent limit violations, contamination of municipal sludge, or other circumstances warranted to prevent interference with the POTW or pass through. All POTWs meeting the above criteria must submit a pretreatment program for DEQ's evaluation and approval within 1 year of written notification from DEQ for the need of a pretreatment program.

If the POTW has a pretreatment program, **then** they must complete Parts D. *Expanded Effluent Testing Data* and E. *Toxicity Testing*.

3.6.3 RCRA Hazardous Waste Received by Truck, Rail or Dedicated Pipeline

If the POTW has accepted any RCRA hazardous waste in the past 3 years by truck, rail, or dedicated pipeline, **then** the applicant must fill out application Parts F.9, F.10, and F11¹⁴.

As defined in Section 1004(5) of RCRA, *hazardous waste* means:

A solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical or infectious characteristics may:

- Cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
- Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Those solid wastes that are considered hazardous are listed under 40 CFR 261. POTWs that accept hazardous wastes by truck, rail, or dedicated pipeline (carries hazardous waste directly to a POTW without prior mixing with domestic sewage) within the property boundary of the POTW are considered to be hazardous waste treatment, storage, and disposal facilities (TSDFs) and are subject to regulations under RCRA.

Under RCRA, mixtures of domestic sewage and other wastes that commingle in the POTW collection system before reaching the property boundary, including those wastes that otherwise would be considered hazardous, are excluded from regulation under the domestic sewage exclusion. However, hazardous wastes that are delivered directly to the POTW by truck, rail, or dedicated pipeline do not fall within the exclusion. Hazardous wastes received by these routes may only be accepted by POTWs if the POTW complies with applicable RCRA requirements for TSDFs.

Applicants completing sections F.9 through F.11 should indicate all points at which RCRA hazardous waste enters the POTW by truck, rail, or dedicated pipeline in the map provided in B.2 of the application, if applicable.

Applicants must report in the application:

- Method of delivery (truck, rail, or dedicated pipe)
- Applicable hazardous waste number designated in IDAPA 58.01.05
- Amount of each hazardous waste received annually

3.6.4 CERCLA, RCRA Remediation/Corrective Action, and other Remedial Waste Activity

If the POTW receives, or has been notified that it will receive, wastewater that originates from remedial activities, including those undertaken under CERCLA, and RCRA Sections 3004(u) or 3008(h), **then** the applicant must complete application Parts F.12 through F.15 and include the following information¹⁵:

- Name of the waste origin site
- Type of facility (RCRA, CERCLA, or other)
- Hazardous constituents specified in IDAPA 58.01.05
- Volume of waste accepted
- Concentration of hazardous constituent
- Waste treatment processes applied before delivery to the POTW
- Discharge frequency

An applicant under this subsection is exempt from entering information in the application if the POTW receives no more than 15 kilograms per month of hazardous waste, unless the waste is acute hazardous waste as specified in IDAPA 58.01.05, “Rules and Standards for Hazardous Waste.”

3.7 Part G. Combined Sewer Systems

Common understanding is that Idaho has no designed combined sewer systems (CSSs). Although some relic CSSs may exist in Idaho, there are no known combined sewer overflows (CSOs). In case CSSs are discovered in the future, the permit application allows applicants to enter information about them. An applicant with CSSs must complete application Part G. *Combined Sewer Systems* and include the following:

- System map
- System diagram
- CSO location description of outfall
- Constituents monitored at the outfall
- Number of storm events during the last year
- CSO events
- Description of receiving waters
- Description of any water quality impacts caused by this CSO.

3.8 Part H. Requests

Requests for a variance, waiver, or mixing zone are indicated in Part H. *Requests* of the permit application. DEQ will discuss the variance or waiver option and any information and the timeline in which the applicant must provide it. More information on the types of variances and waivers a POTW may apply for is provided in the *User's Guide to Permitting and Compliance Volume 1*, section 8.

If the applicant wants DEQ to consider authorizing a mixing zone for any pollutant as part of permit conditions, **then** they must ensure the box remains checked in Part H: *Requests* when submitting their application. If authorized, **then** mixing zones are incorporated when the need for

and stringency of effluent limits WQBELs is assessed in the reasonable potential analysis and effluent limit calculations for pollutants. If the permittee does not request a mixing zone, then DEQ will not use mixing when calculating appropriate WQBELs, and the permittee they will need to meet WQ criteria at the end of pipe for all pollutants. During permit development, DEQ will request that the applicant provide outfall configuration and pollutant concentration data and additional data necessary to determine any appropriate mixing zones. Mixing zones cannot be authorized for pollutants with technology based effluent limits (TBELs) or for *E. coli*¹⁶. Mixing zones are only applicable to WQBEL calculations and are not part of TBEL determination.

3.9 Part I. Other Information

Part I. *Other Information* is optional and may be used by the applicant to expand upon any questions or alert permit reviewer to any other information necessary in establishing permit limits for the POTW.

4 Understanding Your Permit

In addition to information identified in the *User's Guide to Permitting and Compliance Volume 1, Section 5* (DEQ 2017a), the following sections identify conditions found in POTW permits. The accompanying fact sheet will describe decisions and calculations that determine specific permit conditions.

4.1 Discharge Authorization

This permit section authorizes the permittee to discharge pollutants. If the permit authorizes seasonal discharge, then the season is defined here. Additionally, this section identifies if the facility has a DEQ-issued reuse permit.

4.2 Effluent Limits and Associated Monitoring Requirements

The effluent limits for each pollutant are outlined in this permit section. A table specifies the effluent limits and associated monitoring requirements for each outfall and includes the following information:

- Parameter—the pollutants the permittee must monitor
- Discharge period—the months the pollutant is limited
- Units—the permittee is expected to use the designated units to report effluent monitoring
- Effluent limit types—the effluent limits in the appropriate columns for each pollutant
 - Average monthly—the average concentration or mass of the pollutant that the permittee may discharge per month
 - Average weekly—the average concentration or mass of the pollutant that the permittee may discharge per week
 - Maximum daily—the maximum allowed concentration or mass of the pollutant that the permittee may discharge in a single day
- Sample type—the category of the sample required. Example sample types include grab, composite, calculation, and metered.
- Sample frequency—the number of samples to collect over a given period of time

- Sample location—permittee requirements to sample for the pollutant in the influent, effluent, or both

Additional effluent limit tables may be included in the permit, as appropriate, to include numeric effluent limits for:

- Interim effluent limits associated with a compliance schedule.
- Pollutant concentration limits that vary depending on effluent and/or receiving water flow.
- Temperature effluent limits with averaging periods different than average monthly, average weekly, or maximum daily (e.g. mean maximum weekly temperature).

All pollutants with effluent limits must be reported on a monthly DMR.

4.2.1 Annual or Seasonal Average Effluent Limits

This optional permit section is included if annual or seasonal effluent limits are appropriate for any pollutants. It includes effluent limits as concentration and/or load and a statement explaining how the monitoring result is calculated and reported. This section also defines a monitoring and reporting frequency for each pollutant with limits.

4.2.2 Narrative Limits

A permit section after the effluent limit tables includes narrative effluent limits for the discharge.

4.3 Regulatory Mixing Zone

This section of the permit describes any authorized mixing zones including identifying each pollutant and associated percent dilution for flowing waters or allowed surface area for nonflowing water bodies. The permittee must monitor and report the effluent and upstream receiving water concentration of all pollutants with authorized mixing zones. These monitoring and reporting requirements are included in the effluent and receiving water monitoring sections of the permit.

4.4 Monitoring

Permittees must collect samples that are representative of the waste stream (for effluent/influent monitoring) or receiving water (for surface water monitoring). Representative, in this case, refers to a sample from the effluent, influent, or surface water that serves as a characteristic example of the water during the period of discharge, whether continuous or intermittent. Regularly scheduled samples are required in the permit. However, the permittee is also required to collect additional samples at the appropriate location whenever any discharge occurs that may cause a violation of the permit (e.g., a spill, bypass, other upset). This ensures that excursions that may not be detected by regularly scheduled samples can be accounted for.

4.4.1 Influent Monitoring

The influent monitoring table of the permit outlines the monitoring requirements for the influent stream. The table contains the following information:

- Parameter—the pollutant or parameter for which the permittee must monitor
- Time period—the months for which the permittee must monitor the pollutant
- Units—the designated units the permittee is expected to use and report for effluent monitoring
- Minimum frequency—the minimum number of times the permittee must sample for the specified pollutant
- Sample type—the category of the sample type required. Example sample types include grab, composite, calculation, and metered.
- Report—the information the permittee is obligated to report on the DMR. For example, report the average value from weekly samples to 2 significant figures on the monthly DMR.

4.4.2 Effluent Monitoring for Parameters without Effluent Limits

This permit section includes a table for effluent monitoring required for pollutants without effluent limits. The pollutants or parameters in this section are associated with characterizing the effluent and may include pollutants that exceed WQS at end of pipe but have been granted a mixing zone sized to assure WQS compliance at the mixing zone boundary. This may also include non-regulated parameters such as hardness, for which concurrently monitored data is necessary to calculate appropriate water quality criteria. The table contains the following information:

- Parameter—the pollutant or parameter for which the permittee must monitor
- Units—the designated units the permittee is expected to use and report for effluent monitoring
- Minimum frequency—the minimum number of times the permittee must sample for the specified pollutant
- Sample type—the category of the sample type required. Example sample types include grab, composite, calculation, and metered.
- Sample location—the effluent monitoring location
- Report—the information the permittee is obligated to report on the DMR. For example, report the average value from weekly samples to 2 significant figures on the monthly DMR.

All monitoring for pollutants without effluent limits must be reported on the associated monthly DMR.

4.4.3 Sewage Sludge

All POTWs and treatment works treating domestic sewage (TWTDS) generate sewage sludge. Idaho's Wastewater Rules¹⁷ require that POTWs are equipped to manage sludge for final use. Sewage sludge must be treated per federal requirements for pollutants, pathogens, and vectors before use.

All permittees must develop or update and submit a sludge/biosolids management plan to DEQ through the IPDES E-Permitting system by the date specified in the permit. The permit will contain some additional language depending on whether the POTW's sewage sludge is collected from wastewater lagoons or mechanical treatment processes.

For POTWs with wastewater lagoons, the permittee must report the sludge depth annually to DEQ through the IPDES E-Permitting system by the date specified in the permit.

For POTWs using mechanical treatment processes, the permittee must report the annual mass generated, stored, disposed, and reused to DEQ through the IPDES E-Permitting system annually by the date specified in the permit.

4.4.4 Receiving Water Monitoring

The permit specifies the date receiving water monitoring must begin and the duration for which the permittee must conduct monitoring in the vicinity of the outfall. In most cases, receiving water monitoring is included in a permit for the life of the permit. If the permittee is not currently conducting receiving water monitoring, **then** the permit will include some lead time (e.g., 180 days) to begin receiving water monitoring.

The location of monitoring must be approved by DEQ. This section identifies monitoring requirements for the parameters listed in the receiving water monitoring table.

The receiving water monitoring table includes:

- Parameter—the pollutant or parameter for which the permittee must monitor
- Units—the designated units the permittee is expected to use and report receiving water monitoring results
- Frequency—the minimum number of times the permittee must sample for the specified pollutant
- Sample type—the category of the sample type required. Example sample types include grab, composite, calculation, and metered.
- Report—the information the permittee is obligated to report on the DMR. For example, report the analyzed concentration to 2 significant figures on the monthly DMR.

Concurrent sampling (i.e., sampling taken on the same day and at the same time) may be required for pH, ammonia, temperature, dissolved organic carbon, conductivity, metals, and hardness.

This section also includes an optional subsection that outlines the requirements for continuous receiving water monitoring.

4.4.5 Permit Renewal Effluent Monitoring

The permit renewal application requires three effluent monitoring scans to characterize the effect of the effluent on the receiving water. The permit will identify the required monitoring parameters and the collection schedule based on the facility design flow, presence or need for a pretreatment program, and impact on receiving water quality. Required permit renewal monitoring is described in section 3.1. Permit renewal effluent monitoring summary results must be entered in the permit renewal application.

If the POTW has a design flow greater than 1 mgd or an approved pretreatment program, **then** the permittee must complete three scans of expanded effluent testing for pollutants listed in 40 CFR 122, Appendix J, Table 2 and any other pollutants with applicable WQS. The permit renewal monitoring tables specify reporting units, the sample type required, and what must be reported.

4.4.6 Analytical and Sampling Procedures

Required monitoring must be conducted according to test procedures approved under 40 CFR 136, unless another method is required under 40 CFR subchapters N or O, or other test procedures have been specified in the permit and approved by EPA as an alternate test procedure under 40 CFR 136.5.

4.4.6.1 CWA Alternate Test Procedure

When appropriate, any person may submit a written application for review of an alternate test procedure (ATP) for nationwide use to the National ATP Program Coordinator¹⁸. Alternatively, any person may request DEQ, as the permitting authority, to review and initially approve the limited use (Tier 1) of an ATP¹⁹. After reviewing the new method application, DEQ will then forward it to EPA Region 10 along with a recommendation for or against approval (EPA 2016; Figure 1). If DEQ does not initially approve the application, **then** DEQ will specify what additional information might lead to an affirmative reconsideration of the application. At a minimum, an application should include the following:

- A completed new method application form (EPA 2016; Appendix A)
- The new method written in EPA standard format
- Justification for the new method
- The method validation study plan or study report

The EPA Regional ATP coordinator will notify the applicant and DEQ of approval or rejection of the use of the ATP. EPA Region 10 will issue the formal approval for use of a Tier 1 new method, which may restrict the approval to a specific discharge or facility (and its laboratory) or, at the discretion of the EPA Regional ATP coordinator, to all dischargers or facilities (and their associated laboratories) as specified in the approval for the Region.

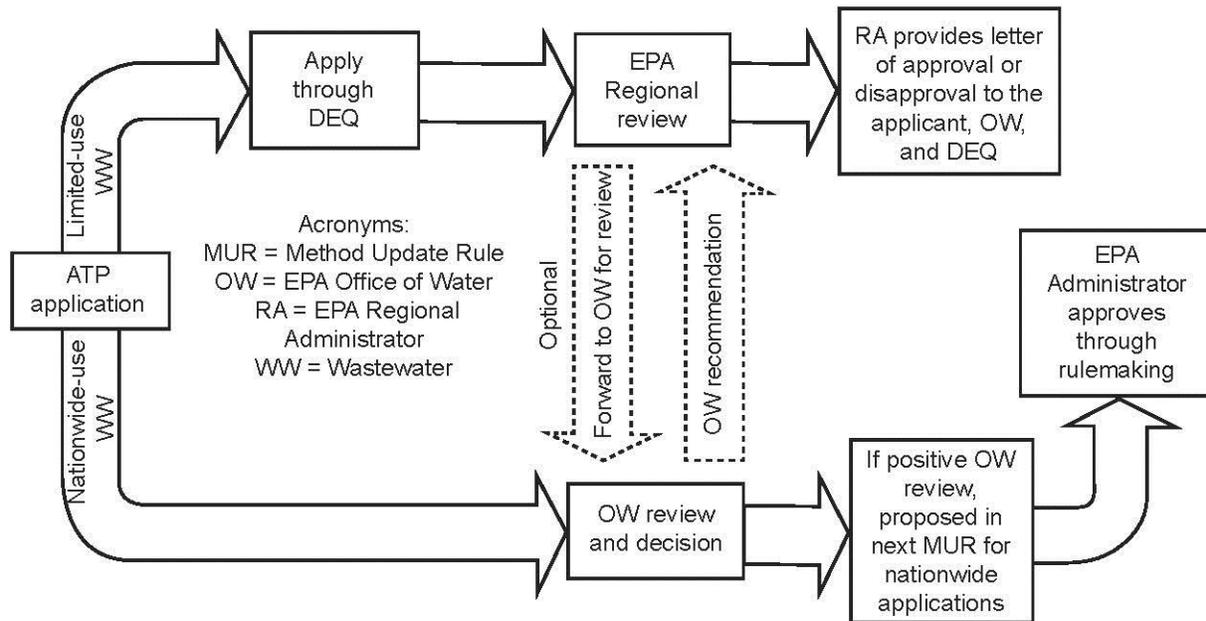


Figure 1. Flowchart summarizing the new method ATP application process (adapted from EPA 2016).

4.4.6.2 Laboratory Quality Assurance and Quality Control

The permittee must develop and implement a quality assurance project plan (QAPP) that conforms to the quality assurance and quality control requirements of 40 CFR Part 136.7. This permit section includes a discussion of required further analysis, documentation, and reporting procedure necessary if a sample does not meet QAPP requirements.

4.5 Recording and Reporting Requirements

This permit section contains information on how to record and report information to DEQ, including the following:

- Recording of results—information the permittee must record for each measurement or sample
- Reporting procedures—description of how and what to report, including how to calculate and report when results are less than the MDL or ML
- DMRs—description of how to submit DMRs
- Permit submittals and schedules—description of how to submit written permit-required reports
- Reporting additional monitoring²⁰—describes requirements for reporting additional monitoring done by the permittee but not required by the permit

4.5.1 DMRs

All permittees must submit their monthly monitoring data electronically using NetDMR²¹. If the permittee is unable to use NetDMR, **then** they must submit a request for a waiver.

All DMR data must be submitted no later than the 20th of the month and must include all effluent, influent, and receiving water monitoring data as specified in the permit. The results should be reported to the number of significant figures noted in the permit monitoring tables and using the appropriate units.

4.5.2 Permit Submittals and Schedules

All permittees must submit permit required reports electronically using the IPDES E-permitting system by the date specified in the permit, unless DEQ has granted the permittee an electronic reporting waiver.

4.5.3 Notice of New Introduction of ~~Toxic~~ Pollutants **from an Indirect Discharger**

This permit section outlines the requirements for notifying DEQ of new or increased volume of pollutants by an authorized indirect discharger.

POTWs must notify DEQ according to instructions in their permit for²²:

- **Any new introduction of pollutants into the POTW from an indirect discharger which required an IPDES permit if they were directly discharging to surface water**
- **Any substantial change in the volume or character of pollutants being introduced into that POTW by an indirect discharger that discharged to the POTW at the time of permit issuance**

Adequate notice must include information on the quality and quantity of effluent introduced to the POTW and any anticipated impact of the change on the quantity or quality of effluent discharged from the POTW.

4.5.4 Reporting Permit Violations

This permit section contains information on how and when to report violations of permit conditions.

4.5.4.1 Twenty-Four Hour and Five Day Noncompliance Reporting

The permittee is required to notify DEQ with a phone call within 24 hours whenever there is noncompliance that may endanger public health or the environment. This includes unanticipated bypasses, upsets, violations, or any overflows.

Permittees must report via telephone within 24 hours from the time the permittee becomes aware of the circumstances and also provide an electronic report submission within five days. The report procedure, contact information for the regional office, hotline phone number, and the health district phone number are included in the permit.

In the event of a sanitary sewer overflow (SSO), collection system backup, or other wastewater discharge event from an unpermitted location or in an unpermitted manner the permittee must complete normal 24-hour and five-day reporting procedures outlined in this permit section.

A bypass is an intentional diversion of the waste stream around any portion of the treatment system²³. Bypasses are prohibited under IPDES permits except in circumstances where effluent limits are not exceeded and done for the purpose of essential maintenance at the facility to assure efficient operation. If the bypass is not associated with an emergency, then the permittee must request approval from DEQ to bypass treatment processes prior to executing the bypass. If the bypass is the result of an emergency, then DEQ will evaluate the circumstances under which the bypass occurred and determine whether to take enforcement action. The permittee must complete reporting procedures.

The use of an alternative treatment process approved in an IPDES permit and implemented consistent with the permit conditions is not considered a bypass. For example, a permit may identify different treatment processes that are approved on a seasonal basis.

If the facility has differing treatment options that depend on effluent limits or environmental conditions and the differing treatment conditions are approved in an IPDES permit and implemented consistent with the permit conditions, then they not considered a bypass.

4.5.4.2 Other Noncompliance Reporting

The permittee is required to notify DEQ whenever they are unable to comply with any permit condition. All noncompliance events not required to be reported within 24 hours must be submitted on the monthly DMR.

4.6 Permit Renewal

The permit contains the date that the renewal application is due. This date is likely no less than 240 days prior to the expiration of the permit. This provides for the IDAPA required 180 days plus 60 days for DEQ to review an application for completeness. For complex permits, DEQ may require that the permit renewal application be submitted more than 240 days prior to permit expiration.

To be eligible for an administrative continuation, a complete permit application must be submitted to the DEQ 180 days prior to the expiration of the current permit. Submittal by the permittee at the deadline (180 days) is not recommended in case the application is not complete. Permits for complete applications submitted prior to the 180 days and deemed complete will remain fully effective and enforceable until the effective date of the new permit or the date of DEQ's decision to deny the application. Applications received after the expiration of the permit will be reviewed as an application for a new source or new discharger.

4.7 Special Conditions

Special conditions are optional and placed into the permit on a case-by-case basis after careful consideration of data available to develop the permit, effluent and receiving water characteristics, facility processes and permittees ability to meet effluent limits. This subsection describes some of the various special conditions that may be included in a POTW permit.

4.7.1 Compliance Schedules and Interim Effluent Limits

A compliance schedule may be included in the permit when a permittee is unable to meet final effluent limits. This schedule specifies a series of activities, with associated milestones, that are identified to acquire, maintain, or reacquire compliance with the effluent limits in the permit. A compliance schedule may accommodate facility upgrades to achieve new or more stringent effluent limits, require development of a pretreatment program, incorporate tasks consistent with a Compliance Agreement Schedule/Consent Order into the permit, or document the schedule for generating and submitting documents, such as a master plan, preliminary engineering reports, plans and specifications, quality assurance plans, project plans, and other documents as specified.

Within 14 days after a task's due date, the permittee must notify DEQ in writing whether they are in compliance with the interim or final requirements²⁴. For compliance schedules longer than 1 year the permittee must also submit an annual progress report that describes efforts made in reaching compliance by the date specified in the compliance schedule²⁵.

4.7.2 Facility Planning Capacity

Each POTW is designed to effectively treat a defined BOD₅ and TSS load. This load capacity is defined the design capacity and is dependent on the facility treatment processes and capacity volume. The facility planning special condition may be included when the facility reaches or has exceeded 80% of the maximum daily flow identified in their current facility plan. Each month the permittee must record and report on DMRs the influent maximum daily flow, BOD₅ and TSS loading averaged over the month. These are compared to the maximum daily flow, BOD₅ and TSS loading, identified in the facility plan.

When the maximum monthly flow or influent BOD₅ or TSS waste load, for any two months or more during a 12-month period, exceeds the facility planning values; the permit will require the facility to develop or update a facility plan. The facility plan should be submitted to DEQ for approval within 18 months of the second exceedance.

Each POTW is designed for adequate capacity to effectively treat defined wastewater flows, as well as BOD₅ and TSS loadings, and other parameter loadings necessary to satisfy WQBELs, such as ammonia, nitrate, nutrients, metals, and organic compounds, etc. This flow and load capacity defines the design capacity and is dependent on the facility treatment processes and capacity. For facilities that serve a growing population and customer base, this facility capacity special condition is included to require the facility to assess and potentially develop plans to prevent facility overloading in advance of reaching flow and load capacity. IPDES permits request a facility to consider preparing these plans when the actual flow or load reaches 85% of any one of the design criteria identified in the current permit.

Each month the permittee must record and report on DMRs the influent maximum daily flow, BOD₅ and TSS loading averaged over the month. These are compared to the maximum daily flow, BOD₅ and TSS loading, and other facility design capacity ratings identified in the facility plan.

When the actual flow or influent BOD₅ or TSS load, or load for any other design capacity parameter, exceeds the maximum design capacity for any two months during a rolling 12-month period, the permittee should assess whether an update to the facility plan is appropriate. The facility plan update may be restricted to address specific portions of the system approaching capacity limitations, as well as the broader system-wide flows and loadings. The engineering analysis may include hydraulic calculations, hydraulic modeling, treatment process calculations, process modeling, pilot studies, demonstration testing, stress testing, or other studies necessary to justify the basis for demonstration of adequate capacity. The facility plan must identify the actions and a schedule necessary to maintain adequate capacity for the expected population growth, flows, and loadings to meet the permit's effluent limits and requirements. The facility plan must be prepared by an Idaho licensed professional engineer and be submitted to DEQ for approval within the time frame specified in the permit.

All municipal facility plans must be submitted to and approved by DEQ.

4.7.3 Whole Effluent Toxicity (WET) Testing

WET testing requirements are included in permits for facilities: with a design flow equal to or greater than 1.0 mgd; if the POTW has an approved pretreatment program; or if DEQ determines WET testing is necessary to determine support of beneficial uses. A minimum of 4 tests in 4.5 years is required.

DEQ may require more frequent monitoring if test results are variable, close to the toxicity trigger or WET limit as identified in the permit, or there is a sensitive use in the receiving water. If toxicity testing reveals no exceedance of the toxicity trigger or effluent limit after the first year of monthly, quarterly or semi-annual monitoring, then the sampling frequency may be decreased. A permit with frequent monitoring will contain this or similar language allowing monitoring frequency reduction:

If no toxicity test exceeds the toxicity trigger in the first year of sampling, **then** the permittee may request in writing to reduce the sampling frequency to annual monitoring. The permittee can assume this reduced monitoring schedule once written confirmation from DEQ is received.

4.7.3.1 Test Requirements

WET tests analyze the overall toxicity of effluent to aquatic test organisms and involve creating a six-part dilution series of varying proportions of effluent and dilution water, consisting of five effluent dilutions plus a control (Figure 2).

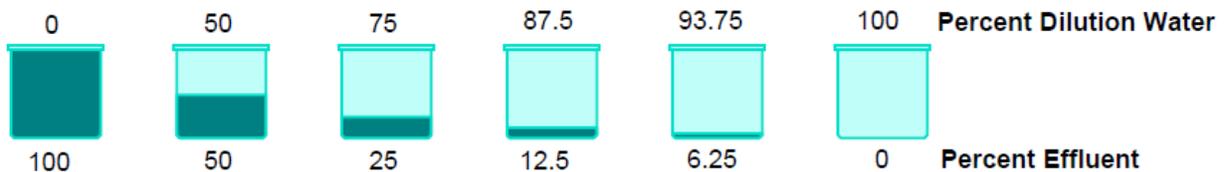


Figure 2. Typical dilution series.

This dilution series is then used to conduct WET testing. There are two types of WET tests: acute and chronic. An acute toxicity test measures lethal toxicity over a short time (typically 96 hours or less), while a chronic toxicity test measures sub-lethal toxicity over a longer period of time. When the dilution factor is ≥ 1000 , acute WET testing is required in the permit. When the dilution factor is < 100 chronic testing is required. If the dilution factor is between 100 and 1000, **then** DEQ may require acute testing, chronic testing or both depending on the sensitivity of beneficial uses. EPA has defined standard WET test species for both acute and chronic tests (Table 2). *Ceriodaphnia dubia* and *Pimephales promelas* are the most commonly used WET test species in Idaho.

Table 2. Commonly used acute and chronic test species.

Acute	Invertebrate	<i>Ceriodaphnia dubia</i> (daphnid)
		<i>Daphnia pulex</i> and <i>D. magna</i> (daphnids)
	Fish	<i>Pimephales promelas</i> (Fathead Minnow)
		<i>Oncorhynchus mykiss</i> (Rainbow Trout)
Chronic	Invertebrate	<i>Ceriodaphnia dubia</i> (daphnid)
	Fish	<i>Pimephales promelas</i> (Fathead Minnow)
	Plant	<i>Pseudokirchneriella subcapitata</i> (green alga also known as <i>Selenastrum capricornutum</i>)

WET tests must be conducted with the frequency and test sample types required in the permit using the appropriate test species.

4.7.3.2 Submitting WET Results

WET test results must be submitted to DEQ using the IPDES E-Permitting system within 30 days after receiving the lab analyses.

4.7.3.3 Toxicity Triggers

When calculating WET limits, the permit writer will determine whether RPTE exists. If no RPTE exists, **then** the permit writer will establish a trigger value equal to the dilution factor and require WET monitoring in the permit. If a WET monitoring result exceeds the trigger value

identified in the permit, then the permittee must conduct accelerated testing. Accelerated test results that corroborate the trigger exceedance will influence the need for a WET limit in future permits.

4.7.3.4 WET Effluent Limit Violations

If a WET monitoring result exceeds the WET effluent limit, then the permittee must report the result on the DMR and begin accelerated testing.

4.7.3.5 Accelerated Testing

Accelerated testing is required by permittees that exceed the permit toxicity triggers or WET limits. In the event of an excursion over the WET trigger or limit, the permit specifies how many tests are required, and testing must start within two weeks of any WET testing results that exceed trigger or limit values. If the source of toxicity is identified, and two subsequent consecutive accelerated WET tests verify that the toxicity has been removed, then accelerated testing may be terminated. However, if accelerated testing indicates continued toxicity, then the permittee must conduct complete a TRE.

4.7.3.6 Toxicity Reduction Evaluations

Prior to initiation of the first required WET test the permit will require development of a TRE framework by the date required by the permit. This framework describes the steps the permittee intends to follow in the event toxicity is detected and should include at a minimum the following:

- A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency
- A description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility
- If a toxicity identification evaluation (TIE) is necessary, who will conduct it (i.e., in-house or other)

The TRE consists of a detailed work plan that indicates the permittee's investigation strategy to identify the cause of the toxicity, the permittee's plan to mitigate and prevent recurring toxicity, and an implementation schedule. ~~The TRE must be permit will require initiation of the TRE within 15 days of receiving the first accelerated test results that confirm toxicity. is designed to reduce the toxicity of the effluent as indicated by the accelerated testing and must be initiated within 15 days of receiving accelerated test results that indicated continued toxicity.~~

The permittee may also initiate a Toxicity Identification Evaluation (TIE) as part of the TRE process to identify the specific pollutant that caused the toxicity.

4.7.4 40 CFR Part 403 General Pretreatment Requirements

A permit will always include either a nondomestic waste management section or a pretreatment program section. Within one of these sections each POTW permit contains the general pretreatment program goals, prohibitions, industrial user survey, and master list development requirements outlined below. In addition, each POTW must also identify its IUs as part of its IPDES permit application and report any new or substantially changed pollutant introduced during the permit term^{26, 27}.

4.7.4.1 General Pretreatment Program Goals

The goal of the National Pretreatment Program is to protect POTWs and the environment from adverse impacts that may occur when hazardous or toxic wastes are discharged into a domestic sewage system. POTWs achieve this by permitting nondomestic industrial users (IUs) and regulating the pollutants discharged into the POTW. The promulgated pretreatment regulations prevent:

- Interference with POTW treatment operations
- Pass-through of pollutants
- Sludge contamination
- Exposure of workers to hazards

4.7.4.2 General Pretreatment Program Prohibitions

The General Pretreatment Regulations for Existing and New Sources of Pollution²⁸ establish prohibited discharge standards to control pollutant discharge into POTWs²⁹. These are addressed as in the *Nondomestic Waste Management* section or in the *Control of Undesirable Pollutants* subsection of the Pretreatment Requirements section in an IPDES POTW permit. Prohibited discharge standards protect the POTW's plant and operations by prohibiting the discharge of pollutants **that would cause interference or pass through** such as:

- Explosive or flammable, **including but not limited to, pollutants with a closed cup flashpoint of less than 60°C (140°F)**
- Corrosive **indirect discharges with a pH lower than 5.0, unless the treatment facilities are designed to accommodate such discharges**
- Solid or viscous in amounts that will obstruct POTW equipment
- **Pollutants** discharged at a flow rate or concentration that would cause interference
- Heated in **amounts that inhibit biological activity in the POTW, resulting in interference excess of 40 °C**
- Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin
- Hazardous to worker health (pollutants that results in the presence of toxic gases, vapors, or fumes)
- Trucked or hauled, except at designated discharge points

See 40 CFR 403.5(b) for additional information on discharges prohibited by the pretreatment program.

4.7.4.3 Industrial User Survey and Master List

A POTW must identify all IUs that may be subject to pretreatment programs and identify pollutants of concern discharged by these users³⁰. **This is done-IUs are identified in the permit application and re-evaluated during the permit cycle** with an industrial user survey.

4.7.4.3.1 Industrial User Survey

A POTW must identify all IUs that may be subject to pretreatment programs and identify pollutants of concern discharged by these users³¹. This is done with an industrial user survey.

Steps for developing the survey include:

- Develop a list of potential industrial users
- Gather necessary data to exclude non-significant industrial users
- Survey remaining industrial users with a questionnaire
- Follow up to ensure adequate and accurate responses
- Compile and evaluate information collected

A detailed discussion of recommended survey procedures, compiling a master list, and conducting follow-up activities are detailed in the Industrial User Survey Guidance (DEQ draft 2017).

Adequacy of the industrial user survey is based on the breadth of the survey master list, the thoroughness of the survey questionnaire, and the completeness of the summary submitted.

4.7.4.3.2 Master List

The Permittee must develop and maintain a master list of the nondomestic users introducing pollutants to the POTW. This list must identify:

1. Names and addresses of all nondomestic users;
2. A description of all processes that affect or contribute to the user's wastewater;
3. The principal products and raw materials of each user that affects or contributes to the user's wastewater;
4. The average daily volume of wastewater discharged by each user, indicating the amount attributable to process flow and non-process flow;
5. A statement whether the user is an SIU and why (flow, nutrients, hydraulic load, etc.);
6. A statement whether the user is subject to one or more categorical standards, and if so, under which category and subcategory;
7. A statement whether the user is subject to local restrictions;
8. The top 4 SIC or NAICS codes for the user's processes and business activities; and
9. A statement whether any problems at the POTW, including upsets, pass-through, or interference have been attributed to the user in the past four and one-half years.

POTW's without an approved pretreatment program are required to update their industrial user survey and submit the results with their IPDES application every 5 years. POTW's with an approved pretreatment program are required to update their industrial user survey annually and submit it with their Pretreatment Annual Report.

4.7.4.4 When is a Pretreatment Program Required?

A POTW must develop a Pretreatment program when the nature or volume of industrial influent causes: upsets in the treatment process, violations of POTW effluent limitations, contamination of municipal sludge, or as other circumstances may warrant³². The most common reasons why a POTW must develop a pretreatment program include the facility size or contribution of discharge from SIUs.

4.7.4.4.1 Facility Size

POTWs, or a group of POTWs operated by the same entity, with a total design flow of more than 5 mgd and receiving industrial pollutants that may cause pass through or interference are

required to establish a pretreatment program under the IPDES Program. In some cases, a POTW with a total design flow of less than 5 mgd may be required to establish a pretreatment program if the nature or volume of the industrial discharge causes POTW treatment process upsets, effluent limit violations, contamination of municipal sludge, or other circumstances as warranted. All POTWs meeting the above criteria must submit a pretreatment program for DEQ evaluation and approval within one year of written notification from DEQ for the need of a pretreatment program.

4.7.4.4.2 Significant Industrial Users

The permittee must use the master list to assess whether they accept waste from a SIU, and therefore, need to develop a pretreatment program. For the purposes of this list development, the term SIU means:

- All nondomestic indirect dischargers (users) subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N. The categorical pretreatment standards cover 25 industries and are published as separate regulations in 405-471. These regulations specify quantities or concentrations of pollutants that may be discharged to a POTW by existing or new industrial users in specific industries (Table 3).

The term SIU also means any other nondomestic indirect discharger that:

- Discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);
- Contributes a process or nonprocess waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
- Is designated by DEQ or the POTW on the basis that the nondomestic indirect discharger has a reasonable potential to adversely affect the POTW's operation.

Table 3. Industries with pretreatment standards Existing point source categories.

Industry Category	40 CFR Part	Industry Category	40 CFR Part
Aluminum Forming	467	Meat and Poultry Products	432
Asbestos Manufacturing	427	Metal Finishing	433
Battery Manufacturing	461	Metal Molding and Casting	464
Canned and Preserved Fruits and Vegetable Processing	407	Metal Products and Machinery	438
Canned and Preserved Seafood Processing	408	Mineral Mining and Processing	436
Carbon Black Manufacturing	458	Nonferrous Metals Forming and Metal Powders	471
Cement Manufacturing	411	Nonferrous Metals Manufacturing	421
Centralized Waste Treatment	437	Oil and Gas Extraction	435
Coal Mining	434	Ore Mining and Dressing	440
Coil Coating	465	Organic Chemicals, Plastics, and Synthetic	414

Industry Category	40 CFR Part	Industry Category	40 CFR Part
		Fibers	
Concentrated Animal Feeding Operations (CAFOs)	412	Paint Formulating	446
Concentrated Aquatic Animal Production	451	Paving and Roofing Materials (Tars and Asphalt)	443
Copper Forming	468	Pesticide Chemicals	455
Dairy Products Processing	405	Petroleum Refining	419
Dental Office ^a	441	Pharmaceutical Manufacturing	439
Electrical and Electronic Components	469	Phosphate Manufacturing	422
Electroplating	413	Photographic	459
Explosives Manufacturing	457	Plastic Molding and Forming	463
Ferroalloy Manufacturing	424	Porcelain Enameling	466
Fertilizer Manufacturing	418	Pulp, Paper, and Paperboard	430
Glass Manufacturing	426	Rubber Manufacturing	428
Grain Mills	406	Soaps and Detergents Manufacturing	417
Gum and Wood Chemicals	454	Steam Electric Power Generating	423
Hospitals	460	Sugar Processing	409
Ink Formulating	447	Textile Mills	410
Inorganic Chemicals	415	Timber Products Processing	429
Iron and Steel Manufacturing	420	Transportation Equipment Cleansing	442
Landfills	445	Waste Combustors	444
Leather Tanning and Finishing	425		

a. In 2017, EPA promulgated effluent guidelines for dental facilities. However, these facilities are not considered SIUs or CIUs unless the POTW chooses to treat them as such, and their presence alone does not require developing a pretreatment program. Dental facilities are required to install amalgam separators and implement BMPs. See 40 CFR 441 for further details on pretreatment standards, reporting, and recordkeeping requirements.

Adhesives	Non-Ferrous Metals
Aluminum Forming	Ore Mining & Dressing
Battery Manufacturing	Organic Chemicals, Plastics, and Synthetics
Coal Mining	Pesticides

Coil Coating	Petroleum Refining
Copper Forming	Pharmaceuticals
Dental Office ^a	Plastics Processing
Electrical Products	Porcelain Enameling
Electroforming	Pulp, Paper, and Fiberboard
Foundries	Steam Electric
Inorganic Chemicals	Textile Mills
Iron & Steel	Timber Products
Leather Tanning & Finishing	
Metal Finishing	

4.7.5 Nondomestic Waste Management

The nondomestic waste management section is included in a permit when a POTW has a design flow less than 5 mgd and does not accept discharge from an SIU and, therefore, is not required to develop a pretreatment program.

POTWs with nondomestic waste management sections are required to complete an industrial user survey and submit a master list once per permit cycle by the date specified in the permit. This list is used by the permittee and DEQ to determine with each permit reissuance whether SIUs or CIUs discharge to the POTW. If the POTW accepts waste from an SIU or CIU, then a pretreatment program is required to control the effect of indirect discharges on treatment capability and effluent quality.

4.7.6 Pretreatment Program Requirements

A local pretreatment program is the legal, technical, and administrative framework for achieving effective control of IU discharges that may cause adverse impact to the POTW or the environment.

A local program includes the following elements:

- An industrial user survey,
- Demonstrable legal authority,
- IU characterization and local limits,
- Compliance monitoring procedures, including an enforcement response plan,
- Implementation procedures, and
- Demonstration of sufficient resources.

A POTW must develop and enforce specific limits or BMPs as necessary to implement the General Pretreatment Program prohibitions specified in section 4.7.4.2. An ordinance may allow the POTW to establish special agreements with IUs to accept waste that does not conform to effluent limits contained in the ordinance. These may allow the waiver of local standards but not

national pretreatment standards unless specifically established under the General Pretreatment Regulations, such as removal credits.

4.7.6.1 Approval Authority vs. Control Authority Responsibility

Once DEQ is established as the approval authority, it is responsible for overseeing the statewide pretreatment program. DEQ approves a POTW's pretreatment program.

When DEQ is the approval authority for a POTW's pretreatment program, it is DEQ's responsibility to:

- Determine when and where POTW pretreatment programs need to be developed;
- Set schedules and specific requirements for POTWs to develop pretreatment programs by including appropriate conditions in POTW IPDES permits or other applicable control mechanisms;
- Review and approve requests for new or modified POTW pretreatment programs;
- Provide technical guidance to control authorities;
- Review and approve requests for site-specific variances to categorical pretreatment standards;
- Receive and review control authority annual pretreatment reports;
- Evaluate POTW pretreatment program implementation by conducting pretreatment compliance audits and inspections; and
- Initiate enforcement actions against noncompliant POTWs or industries as appropriate.

DEQ will act as the control authority for all IUs discharging to a POTW without an approved pretreatment program until the POTW's program is developed and approved. Until the POTW's pretreatment program is approved, it is DEQ's responsibility to:

- Provide technical and legal assistance for the development of the pretreatment program
- Develop compliance schedules for development of the pretreatment program
- Ensure compliance with conditions outlined in the IPDES POTW permit
- Provide administrative review of requests for fundamentally different factors variances

For additional details, see 40 CFR 403.10(f)(2).

When the A POTW that is required to develop an approved pretreatment program, or has an approved pretreatment program and is the control authority, the POTW becomes the control authority and has responsibility to:

- Develop a list of users that will subject to the proposed pretreatment program.
- Estimate the resources and staff needed to carry out the program and propose a schedule for obtaining resources and qualified staff prior to program approval.
- Develop technically defensible local limits for all pollutants of concern or demonstrate that they are not necessary.
- Obtain the legal authority to apply and to enforce the requirement of the program including:
 - Any ordinance that provides requisite authorities and codifies the local limits,
 - Inter-jurisdictional agreements (IJA) that apply the program to outlying areas, and
 - An assessment by the POTW's counsel that the POTW's authorities and IJA's allow them to legally defend applying the program through their service area.

- Develop procedures to ensure compliance with the requirements of a pretreatment program. These procedures must include the means to:
 - Locate all users potentially subject to the program through both periodic efforts and continuous systems,
 - Properly permit users subject to their program,
 - Develop a slug discharge control program,
 - Develop a system for evaluating compliance with permit conditions,
 - Provide direct oversight including inspecting and sampling,
 - Take timely and effective enforcement against violations of the program through the application of an Enforcement Response Plan,
 - Provide for public participation and transparency, and
 - Modify the program to keep pace with Federal and State rule changes.

For additional details regarding pretreatment program responsibilities, see 40 CFR 403.8(f).

4.7.6.2 Pretreatment Program Application and Approval Process

POTWs that are required to develop a pretreatment program must submit their program for approval to DEQ's pretreatment coordinator, who will review the submission for deficiencies. The pretreatment coordinator will determine if the submission demonstrates sufficient legal authority, describes the POTW's compliance, monitoring, investigation, and enforcement procedures, including an Enforcement Response Plan (ERP), the program's technical information, including the industrial user survey and local limits, and the organization, staffing, equipment, and funding. The permittee may refer to the required program application items listed below in this section and resources in section 4.7.6.4 to determine whether its program package is complete prior to submission submittal.

4.7.6.2.1 Develop Municipal Code

The POTW must demonstrate its legal authority to apply and enforce the pretreatment requirements of the CWA. This is done through its sewer use ordinance (SUO). Development of municipal code may be included in an IPDES permit as a submission schedule item.

4.7.6.2.2 Pretreatment Program Application Content

The submission review covers the following major areas:

- Legal Authority
 - Legal Authority Completeness Determination
 - Legal Authority Evaluation
- Enforcement Response Plan
- Program Implementation Procedures
- Technical Information
 - Industrial User Survey
 - Local Limits Development
- Organization, Staffing, Equipment, and Funding

Legal Authority—The submitted pretreatment application must include a statement from a city official, such as the city solicitor, POTW attorney, or other official. The statement must:

- Identify the provision of legal authority for each pretreatment procedure under 403.8(f)(2)
- Identify the manner in which program requirements will be implemented
- Demonstrate how the POTW will ensure compliance and outline enforcement in the event of noncompliance by IUs
- Demonstrate consistency with any approved TMDL water quality management plans

In addition, the POTW must provide the following:

- One copy of each legal authority source cited necessary for program implementation
 - Established local sewer use ordinance
 - Enforcement response plan
 - Multijurisdictional agreements, if applicable
- A statement of endorsement from local boards or bodies responsible for overseeing and/or funding the program

The sources cited must demonstrate the legal authority to:

- Deny or limit new or increased contributions of pollutants
- Require compliance with applicable pretreatment provisions
- Issue permits to control discharges to the POTW and include the following minimum requirements:
 - Statement of duration
 - Statement of transferability
 - Effluent limits
 - Self-monitoring requirements
 - Reporting and notification requirements
 - Statement of applicable civil and criminal penalties
 - Any applicable requirements to control slug discharges
- Issue a compliance schedule for pretreatment technology installation
- Require reports from IUs to assess and assure compliance
- Conduct inspections, surveillance, and monitoring
- Obtain remedies for noncompliance and enforcement authority (civil or criminal penalties)
- Implement confidentiality requirements

The copies of the sources demonstrating the above information should be highlighted to show where the claim is supported.

Legal Authority Completeness Determination—When statements from the city official and local boards and copies of applicable statutes or ordinances have been submitted, DEQ will review the legal authority section for completeness.

To determine whether all required statements of approval are present, refer to the organizational portion of the submission to identify any local board/body involved in the program. Each identified board/body must submit a signed statement of approval.

Legal Authority Evaluation—³³ The POTW attorney, city solicitor, or other city official responsible for bringing an enforcement action in court must provide a signed statement identifying:

- The provision of the legal authority under section 403.8(f)(1) that provides a basis for each procedure under 403.8(f)(2).
- The manner in which the POTW will implement the program requirements in section 403.8, including the means by which pretreatment standards will be applied to individual industrial users.
- How the POTW intends to ensure compliance with pretreatment standards and requirements and enforcement in the event of noncompliance by industrial users.

Enforcement Response Plan—The POTW must develop and implement an enforcement response plan (ERP) that demonstrates detailed procedures indicating how the POTW will investigate and respond to noncompliance events for all IUs. In addition, the ERP should include the types, triggers, and timeframes for escalating enforcement responses. The ERP must identify the individuals responsible for carrying out each response by title.

Enforcement actions may include, but are not limited to:

- Informal notice to IU
- Informal meetings
- Warning letter or Notice of Violation (NOV)
- Administrative orders and compliance schedules
- Administrative fines
- Civil suits
- Criminal prosecution
- Termination of service (revocation of permit)

Program Implementation Procedures—The procedures adopted by a POTW for implementing its pretreatment program should be clear enough to be followed by all users, including the public and POTW staff. The procedures should also be flexible to allow the POTW to respond to day-to-day operational issues while being responsive to requirements in 40 CFR 403. A POTW must be able to:

- Identify and locate all industrial users possibly subject to the pretreatment program
- Identify the character and volume of pollutants discharged to the treatment works by these users
- Notify IUs of applicable standards and requirements
- Receive and analyze self-monitoring reports and other notices from IUs
- Randomly sample and analyze industrial effluents
- Investigate instances of noncompliance
- Comply with public participation requirements

Technical Information—Technical information provides the basis for a significant portion of a pretreatment program, including an effective compliance monitoring system and the development of local effluent limits. A POTW must compile the following information:

- Descriptive background information about the POTW and its service area
- Existing POTW performance data for conventional, nonconventional, and priority pollutants, including historic data on plant problems
- Limitations placed on the POTW's effluent and sludge
- Data on the sampling and analysis performed at the treatment plant and at the industries
- Methodology for determining local effluent limitations.

In addition, the IWS and development of local limits are technical information that applicants must include with the program application.

Industrial User Survey—A POTW must identify all IUs that may be subject to pretreatment programs and identify pollutants of concern discharged by these users. This is done with an industrial user survey. A detailed discussion of recommended survey procedures, compiling a master list, and conducting follow-up activities are detailed in the Industrial User Survey Guidance (DEQ draft 2017).

Local Limits Development—A POTW must characterize discharges to its treatment system and establish local effluent limits to protect the operation of its treatment plant, the quality of its receiving water, and the quality of its sludge. Local limits may be set by industrial category, by pollutant, or by individual industrial facility if categorical standards do not adequately protect the POTW.

- Categorical standards and local limits are complementary types of pretreatment standards. The former are developed to achieve uniform technology-based water pollution control nationwide for selected pollutants and industries. The latter are intended to prevent site-specific POTW and environmental problems due to IU discharges. Local limits can be broader in scope and more diverse in form than categorical standards. The development of local limits requires the assessment of local conditions and the judgment of POTW personnel.
- Local limits are developed by POTWs to enforce the specific and general prohibitions in the national pretreatment standards. The prohibitions and categorical standards are designed to provide a minimum acceptable level of control over IU discharges. They do not, however, take into account site-specific factors at POTWs that may necessitate additional controls. Local limits allow the POTW to exert greater control over IU discharges.
- The promulgation of categorical standards does not relieve a POTW from its obligation to evaluate the need for and to develop local limits to meet pretreatment standards. Because specific prohibitions and categorical standards provide only general protection against pass through and interference, local limits based on POTW-specific conditions may be necessary. A POTW may impose local limits on an IU that are more stringent, or cover more pollutants, than an applicable categorical standard. This may be necessary for the POTW to meet its IPDES permit. If a local limit is less stringent than an applicable categorical standard, however, the industry to which the local limit applies, **then** still must meet the applicable categorical standard.
- POTWs should turn to the EPA Local Limits Development Guidance (Section 4.7.6.4 for further details on developing local limits.

Organization, Staffing, Equipment, and Funding—The POTW must have sufficient resources to implement its pretreatment program³⁴. Due to inadequate staffing or funding, some aspects of the program may need to be implemented at a future date.

Staffing and organizational requirements will vary according to the complexity and comprehensiveness of the local program and the POTW size and service area. At a minimum, the program must outline:

- Clear and appropriate lines of authority
- Identification of staff responsibilities

- Staff qualifications and training
- Staffing levels related to required work effort
- Coordination with other departments
- Contract management (if required)

4.7.6.2.3 Application Approval Process

Within 60 days of receiving the program application, DEQ will make a preliminary determination of whether the submission meets the program requirements. If the application meets program requirements, **then** DEQ will notify the POTW that the submission has been received and is under review and commence the 30 day public comment period. DEQ must complete a final determination on the POTW pretreatment program within 90 days from the start of the public comment period. If the comment period for the public notice is extended beyond 30 days or if a public hearing is held, **then** DEQ may have up to an additional 90 days for approval. Approval cannot exceed 180 days from the date of public notice.

4.7.6.3 Pretreatment Requirements

If a POTW is required to have a pretreatment program or already has a pretreatment program, **then** a Pretreatment Requirements section will be included in the POTW's IPDES permit.

4.7.6.3.1 Program Implementation

The program implementation section of the POTW permit outlines the activities that must be carried out by the POTW. This section focuses on the implementation and enforcement of the pretreatment program, including issuing permits, carrying out inspections, and annually conducting analyses to determine whether local limits are sufficient.

4.7.6.3.2 Spill Prevention and Slug Discharges

This section of the POTW permit requires that the permittee develop and implement an accidental spill prevention program for all SIUs.

4.7.6.3.3 Pretreatment Program Enforcement

The enforcement requirement section of the POTW permit defines the permittee responsibility to notify DEQ within 30 days of any violation of national pretreatment standards. If the permittee fails to initiate enforcement action to correct the violation, **then** DEQ may take enforcement action.

4.7.6.3.4 Modification of Pretreatment Program

Either DEQ or the POTW can initiate a modification at any time to reflect significant changes in the operation of POTW's pretreatment program³⁵. There are two types of modifications: substantial and non-substantial.

1. Substantial Modifications—Substantial modifications cover major changes to the POTW's program and are subjected to a high level of review from DEQ and must go through the public comment. These modifications include:
 - a. Modifications that relax POTW legal authority

- b. Modifications that relax local limits
- c. Changes to the POTW's control mechanism
- d. A decrease in the frequency of self-monitoring or reporting required of IUs
- e. A decrease in the frequency of IU inspections or sampling by the POTW
- f. Changes to the POTW's confidentiality procedures
- g. Others as designated on a case-by-case basis when determined by DEQ to have potential increase in pollutant loading, less stringent requirements, or an impact on POTW operation.

The POTW must submit a statement of basis for the program modification to DEQ. For any proposed modifications that affect ordinances, rules, regulations, or other legal authority relied upon for the POTW program implementation, a statement from the municipality's attorney is required and must describe the effect the change has on the POTW's ability to continue its pretreatment program. For these types of modifications, full adoption of the legal authority is required before the program can be considered complete.

Within 20 working days of receiving the statement of basis, DEQ will review and make a determination if the modified program would still meet 40 CFR 403 requirements. DEQ will then issue a public notice for approval in accordance with 403.11(b)-(f) procedures. Once DEQ has approved the modification, it will be documented by the permit writer in the IPDES permit fact sheet.

2. Non-substantial Modifications—Non-substantial modifications are minor modifications to an IPDES permit. The POTW must submit these to DEQ for approval but they do not need to be released for public notice. Within 45 days of the submission, DEQ will make a determination and either incorporate the modification into the permit or deny the modification and notify the POTW.

4.7.6.3.5 Local Limits Evaluation

The POTW must develop and enforce local limits where necessary to prevent pass through, interference, and prohibited discharges³⁶. These cannot be developed or enforced without prior notice to individual IUs and an opportunity for the user to respond.

Adequate coverage is demonstrated when the local limits include technical information on which the limits are based, including operation and maintenance data, a description of current sludge disposal practices, and the nature and extent of sampling activities.

The POTW must:

- Identify industrial pollutants entering the treatment system
- Identify past POTW operating problems
- Sample and analyze to determine fate and effect
- Develop numerical limits for industrial users

4.7.6.3.6 Pretreatment Monitoring Requirements

This permit condition specifies monitoring requirements for influent, effluent, and sludge. The monitoring tables include pollutants, monitoring frequency, sample type, and what to report in the annual report.

4.7.6.3.7 Pretreatment Annual Report

POTWs with an approved pretreatment program must submit a Pretreatment Annual Report to DEQ each year as required in the IPDES submission schedule. This report must be submitted via the IPDES E-permitting system, unless the permittee was granted an electronic reporting waiver. A report template is available on the IPDES E-Permitting System which contains the necessary components:

- **Cover Page**—The cover page of the Pretreatment Annual Report presents a snapshot of the report submission. It includes:
 - Name of city
 - Contacts
 - Phone
 - Fax
 - Email
 - Mailing Address
 - Reporting period
 - Report due date
 - Report submission date
 - Total SIUs
 - Total CIUs
 - Total SNC
 - A state of review and signature of official
- **User Inventory**—The user inventory section of the annual report focuses on the details of the SIUs and CIUs and their permits. For each IU include:
 - Name of CIU or SIU
 - Contact name
 - Physical address
 - Operator phone
 - Compliance status
 - Top 4 SIC or NAICS codes
 - Permit status
 - Permit expiration date
 - Was the IU monitored by the pretreatment program?
 - Was the IU inspected?
 - Inspection date
 - Number of samples collected
 - Facility description, including a description of the industry, wastewater, generation/flows, monitoring requirements, and pretreatment performed prior to discharge. If the facility is not in compliance, **then** summarize the violation, enforcement response, and present status of the situation. If a facility was deleted from the inventory, **then** provide a description of why.

- For SIUs, identify why the discharge is considered significant (flow, nutrients, or volume)
- For CIUs, identify the applicable category noted as well as cases where more stringent local limits apply instead of the categorical standard.
- **Permits Issued, Reissued, Modified, or Expired**—Provide a list of the permits issued, reissued, modified, or expired during the reporting period.
- **POTW Monitoring Results**—This section should include results of influent, effluent, and sludge levels of toxic and non-conventional pollutants required to be monitored in the POTW's IPDES permit in support of the pretreatment program (metals analysis, sludge test results, local limits & limiting criteria). Tables should include:
 - Dates samples were collected
 - Analytical results, including units, methods used, and minimum detection limits (MDLs)
 - Removal rates for each pollutant monitored for each sample date
 - A statement that all data were gathered and analyzed using methods from 40 CFR 136

Comparison between POTW's maximum allowable headworks loading for each pollutant and highest influent loading measured during the year.

- **Compliance and Inspection Activities Summary**—Compliance activities for all permitted SIUs and CIUs should be outlined in the summary table.
 - Table 4 includes details of the user's permit, the date of their inspections, and the number of samples taken during the previous reporting year.

Table 4. Summary of previous reporting year's compliance activities.

Discharger	Permit Number	Permit Effective Date	Permit Expiration Date	Inspections	Number of Samples	SIU Self-Monitoring	SNC Status
Yummy Foods, Inc.	ID000123	10/12/12	10/12/17	08/05/13	241	Yes / No	No

- Table 5 details the planned inspections for the upcoming reporting year and the monitoring frequency.

Table 5. Summary of the upcoming reporting year's planned inspection/monitoring activities.

Discharger	Planned Inspection	Monitoring Frequency
Yummy Foods, Inc.	10/13/14	3/yr

- **Treatment Plant Upsets**—Description of all treatment plant upsets caused as a direct or indirect result of a discharge. For each event, provide:
 - Date and time
 - Description of effect on POTW operation
 - Description of effect on POTW effluent and sludge quality
 - Identification of suspected or known sources of the discharge causing the upset
 - Steps taken to remedy the upset and prevent future upsets
- **Enforcement Activities**—Enforcement activities for each SIU and CIU should be documented in this section, including copies of the NOVs, the type, number, and total of fines assessed, and the limits that were violated.

- **Significant Noncompliance (SNC) Publications**—Provide a photocopy of the SNC publications for each SNC. Be sure the photocopy clearly indicates the name of the publication and the date on which it was circulated.
- **Status of Program Implementation**—This section of the Pretreatment Annual Report should include the POTW's activities and any outlying jurisdictions for the full reporting period.
- **Program Development Activities or Program Modifications**—Information in this section should focus on any changes to critical elements of the pretreatment program, including staffing, funding, municipal code, etc. Additional information may be included, for example, changes to the industrial user survey, implementation of software, changes to local limits, etc. If modifications of any kind have occurred, **then** they should be included in this section. Following substantial modification procedures does not relieve the POTW of the duty to report those modifications in the annual report.
- **Outreach Activities**—This section should include information about the outreach activities of the POTW during the reporting period.
 - This includes information about those IUs notified during the year of their applicable pretreatment standards and requirements, user charges required under the Clean Water Act, sludge use requirements, and requirements under RCRA.
 - Include information about those IUs notified during the year of promulgated pretreatment standards who are on compliance schedules. This list should include the final date of compliance for each facility. Include any additional educational or outreach activities as appropriate.
- **Future Activities**—Information provided in this section should focus on the next reporting year.

4.7.6.4 Additional Pretreatment Program Resources

The preceding sections are not intended to be a comprehensive guidance to the development and implementation of a pretreatment program. EPA has several guidance documents available that POTWs may find helpful in developing their pretreatment programs.

- *Guidance Manual for POTW Pretreatment Program Development*—This document can guide POTW's through the process of developing a successful pretreatment program.
<https://www3.epa.gov/npdes/pubs/owm0003.pdf>
- *Introduction to the National Pretreatment Program*—This document is a summary of existing EPA guidance and provides an overview of the pretreatment program that POTWs needing a pretreatment program
https://www3.epa.gov/npdes/pubs/pretreatment_program_intro_2011.pdf
- *Procedure Manual for Reviewing a POTW Pretreatment Program Submission*—This document, intended for the Approval Authority (in this case, DEQ), will give the POTW insight into what is expected in its pretreatment program submission.
<https://www3.epa.gov/npdes/pubs/owm0024.pdf>
- *Local Limits Development Guidance*—This document can assist municipalities in developing and implementing of local controls or limits on discharges to POTWs.
https://www3.epa.gov/npdes/pubs/final_local_limits_guidance.pdf

4.7.7 Mercury

Permit special conditions for mercury depend on whether the POTW is considered either a significant or *de minimis* discharge of mercury depending on the results of an RPA. Significant discharges are defined as having either been assigned a TMDL wasteload allocation (WLA) or having been determined to have reasonable potential to exceed (RPTE) the mercury criteria. De minimis dischargers are those facilities that do not discharge enough mercury to be assigned a TMDL WLA nor do they have RPTE to exceed the mercury criteria. De minimis dischargers are confirmed through effluent monitoring of mercury concentration. Refer to the *Implementation Guidance for the Idaho Mercury Water Quality Criteria* (DEQ, 2005) for further information.

The status of permittees may change with new or increased discharges from an SIU, new wastewater treatment processes, or other major new mercury sources within the collection system. In these cases, because of the uncertainty in effluent quality, the permittee will be required to complete another round of mercury effluent monitoring, to assess de minimis status.

There are two types of special conditions related to mercury that may be included in a POTW permit, a mercury minimization plan and fish tissue methylmercury monitoring requirements. Table 6 provides typical mercury-related permit conditions.

Table 6. Mercury permit conditions.

Source Type	Mercury Minimization Plan	Effluent Limits and Monitoring	Minimum Frequency Fish Tissue Methylmercury Monitoring
Significant Source	Mercury minimization plan with mandatory BMPS	Quarterly or Semi-annually Numeric effluent limits may be required to meet aquatic life criteria	Once during initial 5-year permit cycle, then at least once every 5 years
De minimis source	mercury minimization plan with voluntary BMPs	Limited monitoring in first permit cycle to establish and confirm de minimis status. Continued monitoring frequency reduced if continued designated de minimis	Once during initial 5-year permit cycle, then at least once every 5-8 years dependent on watershed priority

4.7.7.1 Mercury Minimization Plan

The purpose of a mercury minimization plan is to identify potential sources of mercury and measures to prevent or reduce mercury loading to the facility. Permits for facilities that discharge mercury and are categorized as either significant or de minimis dischargers of mercury will include a condition to develop and implement a mercury minimization plan. Facilities without detectable mercury in their effluent do not need to develop a mercury minimization plan. De minimis sources will develop a mercury minimization plan with voluntary BMPs. Significant sources develop a more comprehensive mercury minimization plan with mandatory BMPs.

The mercury minimization plan should at a minimum include the following:

- **Include** Monitoring to confirm current or potential sources of mercury
- Identify current and potential mercury sources contributing to discharge concentrations
- Identify and evaluated conditions that may contribute to methylation of elemental mercury in the collection and treatment systems. **For de minimis dischargers this may be a qualitative evaluation.**
- Identify industrial, commercial, and residential sources of mercury
- Identify potential methods for reducing or eliminating mercury

The permit will contain influent and effluent monitoring requirements to evaluate effectiveness of the mercury minimization plan. An annual mercury minimization status report must be submitted to DEQ through the E-Permitting system or as a hard copy if the permittee has an approved electronic waiver.

4.7.7.2 Fish Tissue Methylmercury Monitoring Requirements

Fish tissue methylmercury monitoring helps DEQ determine whether consuming organisms from a water body pose a threat to human health. Permits for POTWs **that are significant mercury sources include fish tissue methylmercury monitoring.** Permits for POTWs **that are de minimis mercury sources may** ~~with detectable mercury in their effluent~~ include fish tissue methylmercury monitoring requirements to determine the POTW's impact on methylmercury concentrations in fish from the receiving water. The fish tissue monitoring can be conducted **either** on a facility-specific basis, **a watershed cooperative basis,** or within the proposed statewide cooperative fish tissue monitoring program **in lieu of facility-specific monitoring.**

The frequency of fish tissue monitoring required in a permit is dependent on whether the facility is assigned TMDL WLA for mercury and whether the fish tissue criterion data indicates there is RPTE.

The methylmercury fish tissue monitoring plan conditions and requirements are outlined in the permit. The monitoring plan must include:

- Monitoring locations
- Contact information for the entity collecting and analyzing fish tissue samples
- A fish tissue sampling plan identifying target species, sample number, target fish size, timing and frequency of sample collection, and procedures for fish collection, handling, and sample shipping
- Tissue sample preparation and analytical methods
- Water column mercury sampling location, method, and frequency

An annual fish tissue monitoring report must be submitted to DEQ through the E-Permitting system or as a hard copy if the permittee has an approved electronic waiver.

4.7.8 Phosphorus Management Plans

When the discharge contributes to nutrient impairment in a water body and a TMDL has **either** not been developed ~~or fully implemented~~, the permit may require a phosphorus management plan. This condition may also be included if a TMDL is under development but there is not enough information to determine the facility's contribution to impairment, or when there is a TMDL load allocation assigned to the receiving water body because it contributes to the impairment of a downstream water body.

The phosphorus management plan includes:

- A compilation of influent and effluent phosphorus monitoring data
- An evaluation of the facilities' total phosphorus reduction potential
- An evaluation of the total phosphorus reduction potential of nondomestic users discharging to the POTW collection system
- Total phosphorus reduction goals for the facility
- Phosphorus reduction strategies for the facility to meet the total phosphorus reduction goals
- Phosphorus reduction strategies for non-domestic users to meet the total phosphorus reduction goals

The permit may require the permittee to submit an annual report to DEQ, through the E-Permitting system or as a hard copy if the permittee has an approved electronic waiver, of total phosphorus reduction potential and any reductions achieved. If strategies are ineffective or if there are changes to the influent quality or treatment process that affect the total phosphorus reduction potential of the treatment plant, **then** the permit may require the permittee to revise the phosphorus management plan.

4.7.9 Mixing Zone Study

This permit condition requires collection of outfall and channel structure information to complete a mixing zone analysis if the permittee requests a mixing zone but there is not adequate information to determine the appropriate size or to complete the appropriate level of analysis for the facility. Appendix B of the *Idaho Mixing Zone Implementation Guidance* (DEQ 2016a) discusses the outfall and channel structure information required for the appropriate mixing zone tier analysis. The permit effluent and receiving water monitoring sections require pollutant concentration monitoring. The permit will specify information the permittee needs to collect and submit to DEQ through the E-Permitting system or as a hard copy if the permittee has an approved electronic waiver. **The steps DEQ will take to authorize or revise a mixing zone and determine the need for effluent limits are included in the effluent and receiving water monitoring and mixing zone study sections of the permit.**

For non-flowing waters, water currents and temperature stratification influence the configuration of the mixing zone. The mixing zone study special condition may also require data collection or mixing zone model analyses.

4.7.10 Inflow and Infiltration Evaluation

Inflow and infiltration (I&I) refers to storm or ground water that enters the POTW collection system. Permits may include a condition that require evaluation of collection system inflow and infiltration when the facility has difficulty meeting permit limits and conditions such as hydraulic, BOD, or TSS load capacity, especially during high precipitation or seasons with shallow groundwater where excessive I&I is suspected.

This permit condition requires:

- An I&I evaluation consistent with the EPA publication *I&I analysis and Project Certification* (EPA 1985)

- A report summarizing the results of an I&I evaluation and any reduction activities performed during the previous year and planned activities for the following year
 - If I&I has increased more than 15%, based on equivalent rainfall **from the previous evaluation**, **then** the report must include a plan and schedule to locate sources of I&I and correct the problem.

4.7.11 Spill Control Plan

Development of a spill control plan is a permit condition if the POTW uses or stores petroleum or other chemicals at the treatment facility. The permittee can develop a new plan or update an existing plan. They should review the plan annually and update as needed.

The spill control plan must include:

- A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled or otherwise released into the environment pose a potential threat to human health or the environment. Include other materials used and/or stored on-site that may become pollutants or cause pollution upon reaching surface water.
- A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) that prevent, contain, or treat spills of these materials.
- A description of the reporting system the permittee will use to alert responsible managers and legal authorities in the event of a spill.
- A description of operator training to implement the plan.

4.7.12 Municipal Lagoon Seepage Testing

DEQ “Wastewater Rules,” IDAPA 58.01.16.493 require that municipal treatment lagoons be tested every 10 years to ensure the impermeable liner is functional. A lagoon seepage permit condition requiring the permittee comply with this regulation is included if the facility is due for seepage testing within the permit cycle.

4.7.13 Biosolids

Section will be included in permits when the treatment facility produces Biosolids after DEQ has an authorized Biosolids Program. The permit conditions include Biosolids monitoring and reporting requirements.

4.7.14 Combined Sewer Systems **and Overflows**

No CSS-designed systems are known to exist in Idaho. **Although some relic CSSs may exist in Idaho, and** there are no known CSOs. This condition is included in permits if facilities have a combined system **and there are known CSOs**. The permit section includes requirements for **the CSS and** any CSOs. For additional information on CSOs, see Section 3.2.3.5 of User's Guide Volume 1 (DEQ 2017a).

4.7.15 Best Management Practices Plan (BMPs)

This **permit** section is to include **specific BMPs or** a requirement for the facility to develop a BMP plan to meet permit conditions that cannot be addressed with effluent limits. **The general schedule for BMP plan development is included in the permit.**

BMPs are actions or procedures to prevent or reduce the discharge of pollution to waters of the United States. BMPs are, by their nature, pollution prevention practices. Traditionally, BMPs have focused on good housekeeping measures and good management techniques that attempt to avoid contact between pollutants and water as a result of leaks, spills, and improper waste disposal. BMPs or BMP plans included in permits may include³⁷:

- Schedules of activities
- Prohibitions of practices
- Maintenance of procedures
- Treatment requirements
- Operating procedures and practices to control:
 - Plant site runoff
 - Spillage or leaks
 - Sludge or waste disposal
 - Drainage from raw material storage areas

A permit will contain BMPs or a requirement to develop a BMP plan to control or abate the discharge of pollutants when any of the following are true³⁸:

- BMPs are authorized under CWA section 304(e).
- BMPs are authorized under CWA section 402(p) for the control of storm water discharges.
- Numeric effluent limitations are infeasible because:
 - Treatability of the pollutant is limited
 - Limited data is available to assess impact on aquatic life and allow development of numeric TBELs or WQBELs.
 - Types of pollutants in the discharge vary greatly over time.
- The practices are necessary to achieve effluent limitations and standards or carry out the purpose and intent of the CWA.

In addition, the permit may include BMPs under any of the following circumstances:

- When chemical analyses are inappropriate or impossible.
- When there is a history of leaks and spills or when housekeeping is sloppy.
- When a complex facility lacks data for a pollutant or pollutants.

BMP Requirements in NPDES Permits

Permits may include BMP requirements using two approaches:

- Site-, process-, or pollutant-specific BMPs, or
- A requirement to develop a BMP plan

Site-, process-, or pollutant-specific BMPs might be appropriate in the case of an individual permit where a permit writer has the opportunity to review the circumstances at the facility. Complicated facilities or those with novel treatment technologies may be required by the permit to develop a BMP plan specific to circumstances at its facility.

Specific BMPs

Specific BMPs are designed to address conditions particular to a facility or to a specific site, process, or pollutant. Specific BMPs might be used in a permit when

- They are needed to address ancillary activities that could result in the discharge of pollutants to waters of the United States.
- Numeric effluent limitations for a specific process are otherwise infeasible and BMPs serve as effluent limitations for that process.
- They are required to supplement and ensure compliance with effluent limitations in the permit.

BMPs included in the permit may be chosen through:

- Review of the specific facility to determine the applicable and appropriate management practices.
- Evaluation of whether the BMP would help to achieve effluent limitations or other environmental objectives for that facility.
- Information from other permits, pollution prevention sources, and EPA guidance documents to identify applicable and appropriate BMPs.

BMP Plans

If a permit requires the facility to develop a BMP plan, then it is the facility's responsibility to develop, implement, and evaluate the success or shortfalls of its own plan. The *Guidance Manual for Developing Best Management Practices* (EPA 1993) describes the activities and materials at an industrial or municipal facility that are best addressed by BMPs. The manual also describes how BMPs work, provides examples of types of BMPs, and typical components of effective BMP plans. The minimum suggested components of a BMP plan are:

General Provisions

- Name and location of facility
- Statement of BMP policy and objective
- Review by plant manager

Specific Provisions

- BMP committee
- Risk identification and assessment
- Reporting of BMP incidents
- Materials compatibility
- Good housekeeping
- Preventive maintenance
- Inspections and records
- Security
- Employee training

4.7.16 Water Quality Trading

Pollutant trading is recognized in Idaho's WQS at IDAPA 58.01.02.055.06 and the *Water Quality Trading Guidance* (DEQ 2016b). Currently, DEQ policy is to allow pollutant trading as a means of restoring water quality limited water bodies to compliance with the standards. DEQ considers nutrients **and temperature** appropriate pollutants for trading—specifically, total phosphorus, **and total nitrogen and thermal loading**. Sediment or suspended solids trading to address sedimentation may be considered, particularly where dissolved oxygen impacts occur. DEQ supports trades where adequate information exists to establish and correlate water quality improvements from implementation of best management practices or technological measures. This permit condition includes specific requirements or agreements for water quality trading associated with this facility. If the POTW wishes to generate or use pollutant trading credits, **then** they should consult with IPDES permit staff prior to submitting their permit application.

Trading may occur between two point source dischargers (point source-point source trading) or a point source discharger and a nonpoint source discharger (point source-nonpoint source trading). Before anyone can participate in trading, DEQ must approve specific analyses that ensure consistency with water quality goals, IPDES permits, TMDL WLAs, CWA provisions, EPA regulations, and WQS. The permit applicant is responsible for:

- Cooperating with other entities (buyers or sellers)
- Submitting a trading plan to DEQ, which incorporates the terms of a relevant watershed trading framework by reference and all specific details necessary to support trading

See Section 5 of the *Water Quality Trading Guidance* for additional details on the trading framework and trading plan.

4.7.16.1 Point Source-to-Point Source Trading

A point source may voluntarily reduce its pollutant discharge below its effluent limit by a particular amount for a particular calendar month. This voluntary reduction creates a credit that may be sold to another point source. The sale of credits increases the seller's effective discharge by the amount of the credit. Credits are characterized by an amount of a pollutant per unit of time. A point source is able to increase its pollutant discharge by purchasing credits generated by another point source located within the same water body covered by a TMDL. Credits can only be used in the same month in which the underlying reduction occurred.

Each point source is responsible for its discharge, adjusted by traded credits, meeting its individual effluent limit. DEQ retains full enforcement authority in the event either point source's effluent limit is exceeded.

Individual point sources may have provisions in their permits that limit their ability to increase their discharge to prevent adverse local water quality impacts.

4.7.16.2 Point Source-to-Nonpoint Source Trading

A nonpoint source may voluntarily reduce the amount of pollutant run-off. If a BMP, selected from the applicable BMP List in the *Water Quality Trading Guidance* (DEQ 2016b), is installed and the pollutant reduction is measured or calculated and documented according to the BMP's requirements, a credit can be created that may be sold to a point source. A nonpoint source credit is characterized by a pollutant amount and a period of time consistent with the TMDL and a

point source's permit requirements. The amount of the credit is determined by applying the BMPs, adjusted by the ratios, minus the water quality contribution.

A point source may increase its pollutant discharge for any month by purchasing credits generated in the same month by a nonpoint source located on the same water body covered by the TMDL. When nonpoint source reductions are used to adjust point source discharges, the point source retains full responsibility for the quantity and delivery of the credits it purchases from a nonpoint source and uses to meet its limit.

Nonpoint source credits are tradable only after the project is installed, installation has been inspected by the point source, and the reductions have been verified through monitoring and recorded. Should DEQ later determine that the BMP's underlying reduction is invalid, the credit is nullified, and the point source's effective discharge for that month is adjusted accordingly. DEQ has full authority under the IPDES program to enforce the point source's effluent limit. Mechanisms used to verify reductions include monitoring, trade information tracking (including use of a trade database), and recordkeeping and reporting. DEQ will verify nonpoint source reductions identified in Section 8.2.2, *Review of Best Management Practices for Nonpoint Source Credits*, of the *Water Quality Trading Guidance* (DEQ 2016b).

4.7.17 Variances, Waivers and Intake Credits

The permit may contain a special condition describing requirements for any approved variances, waivers or intake credits. For additional information regarding qualification for these conditions or the application process for variances, waivers, or intake credits available to POTWs see section 8 in the *IPDES User's Guide to Permitting and Compliance Volume 1* (DEQ 2017a).

4.7.18 Other Special Conditions

DEQ may develop other special conditions as needed.

4.8 Standard Conditions

Standard conditions are permit conditions that are included in all POTW permits.

4.8.1 Plans Documents Applicable to all Permits

All permits include requirements to develop plans/manuals necessary for proper operation, monitoring, and reporting. These include the:

- Quality Assurance Project Plan (QAPP)
- Operations and Maintenance (O&M) manual plan
- Emergency Response Plan

4.8.1.1 QAPP

All POTWs must develop (or update) and implement a QAPP that conforms to the quality assurance and quality control requirements of 40 CFR Part 136.7 for all monitoring required by the permit³⁹. The QAPP should be consistent with *EPA Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5).

The QAPP must be retained onsite and made available to DEQ upon request.

4.8.1.2 O&M Plan Manual

POTWs must develop and implement an O&M Plan Manual that is consistent with requirements of IDAPA 58.01.16.425. The plan manual must be retained on site and made available to DEQ upon request. Any changes occurring in the operation of the plant must be reflected within the O&M plan manual. The plan manual must include, but is not limited to⁴⁰:

- Daily operating instructions
- Operator safety procedures
- Location of valves and other key system features
- A parts list and parts order forms
- Information for contacting the responsible charge operators

4.8.1.3 Emergency Response Plan

The permittee must develop and implement an emergency response plan⁴¹ (ERP) that identifies measures to protect public health and the environment. At a minimum, the plan should:

- Ensure the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control, as well as any unanticipated treatment unit bypass or upset that may exceed any effluent limit in the permit.
- Ensure reports of an overflow or of an unanticipated bypass or upset that may exceed any effluent limit in this permit are immediately dispatched to appropriate personnel for investigation and response as required in the permit.
- Ensure immediate notification to DEQ of any noncompliance that may endanger public health or the environment and identify the public health district and other officials who will receive immediate notification for items that require 24-hour reporting in the permit.
- Ensure appropriate personnel understand, are appropriately trained on, and follow the ERP.
- Provide emergency facility operation.

The permittee must submit written notice to DEQ that the plan has been developed and implemented. The plan must be available at the facility for DEQ review.

4.8.2 Conditions Applicable to all Permits

Certain permit conditions are applicable to all individual permits.⁴² A list and description of these conditions is provided in section 5.1.5 the *IPDES User's Guide to Permitting and Compliance Volume 1* (DEQ 2017a). In addition, POTW permits have the following standard conditions included in every permit.

4.8.2.1 Planned Changes

This condition requires the permittee to provide written notice of planned physical alterations or additions to the permitted facility.

4.8.2.2 Anticipated Noncompliance

The permittee must give written advance notice to DEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

4.8.2.3 Toxic Pollutants

The permittee must comply with effluent standards or prohibitions in the toxic pollutant list in 40 CFR 307(a) and with standards for sewage sludge use or disposal in 40 CFR 405(d) within the time provided in the regulation, even if the permit has not yet been modified to incorporate the requirements.

4.8.2.4 Permit Modification

A permit may be modified at the request of an interested person, by DEQ's initiative, or to include any applicable standard for sewage sludge that is not included in the permit.

4.8.2.5 Omitted/Erroneous Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application or that it submitted incorrect information in a permit application or any report to DEQ, it must promptly submit the omitted facts or corrected information in writing.

4.8.2.6 Availability of Reports

Information, other than permit applications and effluent data, submitted to DEQ pursuant to a permit may be claimed as confidential by the permittee. If a claim is made, **then** the information will be treated in accordance with the procedures in IDAPA 58.01.21. If no claim is made at the time of submission, **then** DEQ may make the information available to the public without further notice to the permittee.

4.8.2.7 Transfers

This permit condition states that the permit is not transferable to any person except after written notice to DEQ. DEQ may require modification or revocation and reissuance of this permit to change the name of the permittee and incorporate such other requirements as may be necessary under IDAPA 58.01.25.202.

4.8.2.8 State Laws

The condition states that the permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

5 Other Considerations

This section includes topics related to **permitting POTWs that can be part of the permitting process.**

5.1 Facilities with Multiple Water Quality Permits

Some POTWs have IPDES and Reuse permits. These permits authorize the discharge of treated effluent to surface water or land application, generally depending on season. Depending on the quality of the POTW's effluent, a reuse permit authorizes uses that may include but are not restricted to:

- Use in a city's public irrigation system or for ground water recharge (Class A),
- Park or golf course irrigation (Class B)
- Highway median or orchard irrigation (Class C)
- Ornamental nursery stock or pasture irrigation (Class D), or
- Commercial timber or, fodder and fiber crop production (Class E)

The Recycled Water Rules⁴³ and the IPDES Rules⁴⁴ both encourage permittees to request a pre-application meeting to discuss permit requirements, alternatives, and schedules. A pre-application meeting can prove beneficial to the permittee by identifying the monitoring and reporting requirements of each permit type. DEQ encourages all POTWs that have or are considering obtaining both an IPDES and a Reuse permit to schedule a meeting with the appropriate DEQ Regional Office to discuss this dual permitting opportunity. IPDES staff will work with regional wastewater staff to coordinate permit conditions and the timing of site visits whenever possible.

5.2 Offsets and Watershed and Bubble Permitting

An offset is a pollutant load reduction that is created by an action, activity, or technology, which, when approved by DEQ, may be used to comply with IPDES permit effluent limits, conditions, and stipulations. The WQS allow for the use of offsets as a way to mitigate specific proposed increases in pollutant loading to Tier II and III waters⁴⁵. In the context of antidegradation, an offset is a reduction of load upstream that provides the added assimilative capacity so that the load added by a new or increased discharge does not lower water quality.

An offset results in a net environmental benefit when a facility reduces the input of a pollutant in the receiving water body. In turn, the facility is allowed to discharge higher loads of the pollutant from their wastewater facility. The facility being granted an offset should reduce the cumulative load of pollutant by more than the amount contributed by their facility resulting in a better environmental outcome for the receiving water body.

Through properly conducted offsets, there will be no net degradation (i.e., lowering) of water quality, not even in a portion of the receiving water, relative to current conditions. For some pollutants (e.g., nutrients), there may be a lag in their effect on water quality, which would appear as a gap between the point of discharge and the water quality degradation. In this case, the location of an offset could be below the point of discharge yet upstream of degradation.

Watershed permitting is a process that evaluates and emphasizes all activities and stressors occurring within a defined watershed area to determine the impacts on the water body. Watershed permitting allows for flexibility in defining approaches to meet water quality standards. This approach allows the permit writer to consider the overall goals in the watershed and work with dischargers to find ways to meet those goals.

Watershed permitting allows DEQ to focus on watershed goals and consider multiple pollutant sources and stressors. The most common form of this is re-issuing permit according to a five-year rotating basin schedule, although there are other forms of this style of permitting.

Find more information at EPA's Watershed Permitting website regarding this style of permitting: www.epa.gov/npdes/watershed-based-permitting.

5.3 2014 Water Resources Reform and Development Act (WRRDA) Effect on CWA State Revolving Fund (SRF)

Title V of the Water Resources Reform and Development Act of 2014 (WRRDA) allows the EPA administrator general authority to allocate funds to the State Revolving Fund (SRF) Program. This fund is administered by DEQ to provide grants and loans for wastewater infrastructure improvement, including construction of POTWs and repair or replacement of decentralized wastewater treatment systems, with potential funding up to 100% of project costs. Counties, cities, special service districts, governmental entities, and nonprofit corporations with authority to collect, treat, or dispose of sewage or industrial wastewater are eligible to participate in the SRF. Potential candidates must submit a letter of interest to be eligible for placement on the state's priority list.

For additional information regarding funding through DEQ's SRF, see the Public Wastewater System Construction Loans page of DEQ's website: <http://www.deq.idaho.gov/water-quality/grants-loans/wastewater-system-construction-loans/>

6 Permit Compliance and Inspection

The process for determining permit compliance does not differ by permit sector. Please see section 9 in the *IPDES User's Guide to Permitting and Compliance Volume 1* (DEQ 2017a).

References

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United States Congress. *Water Resources Reform and Development Act of 2014*. 2014. 113th Congress. H.R. 3080. Washington: GPO. <https://www.gpo.gov/fdsys/pkg/PLAW-113publ121/html/PLAW-113publ121.htm>

Key Terms

Citations for key terms used in this guide are provided below. To see the official definition for a term, users should go directly to the rule that is referenced.

Term	IDAPA, CFR, or CWA Citation
Discharge	IDAPA 58.01.25.010.27.
General Permit	IDAPA 58.01.02.010.40
Idaho Pollutant Discharge Elimination System (IPDES)	IDAPA 58.01.25.010.42
National Pollutant Discharge Elimination System (NPDES)	IDAPA 58.01.25.010.56
Notice of Intent (NOI) to Obtain Coverage Under an IPDES General Permit	IDAPA 58.01.25.010.60
Permit	IDAPA 58.01.25.010.63
Person	IDAPA 58.01.25.010.64
Pollutant	IDAPA 58.01.25.010.66
Pretreatment	IDAPA 58.01.25.010.68
Publicly Owned Treatment Works (POTW)	IDAPA 58.01.25.010.73
Sewage Sludge	IDAPA 58.01.25.010.84
Storm Water	IDAPA 58.01.25.010.94
Water Quality-Based Effluent Limit (WQBEL)	IDAPA 58.01.25.010.107
Waters of the United States	IDAPA 58.01.25.003.aa

Endnotes: IDAPA and CFR References

- ¹ IDAPA 58.01.25.050
- ² IDAPA 58.01.25.010.70 and 73
- ³ IDAPA 58.01.25.105.11
- ⁴ IDAPA 58.01.25.010.57 and 58
- ⁵ IDAPA 58.01.25.105.11.d
- ⁶ IDAPA 58.01.25.090.01
- ⁷ IDAPA 58.01.25.105.11.f.iii
- ⁸ IDAPA 58.01.25.105.12
- ⁹ IDAPA 58.01.25.104.12.d.v
- ¹⁰ IDAPA 58.01.25.105.13.a
- ¹¹ 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N
- ¹² IDAPA 58.01.25.105.13.b
- ¹³ 40 CFR 403.8(a)
- ¹⁴ IDAPA 58.01.25.105.14.a
- ¹⁵ IDAPA 58.01.25.105.14.a
- ¹⁶ IDAPA 58.01.02.060.01.d.vi
- ¹⁷ IDAPA 58.01.16.480
- ¹⁸ 40 CFR 136.4
- ¹⁹ 40 CFR 136.5
- ²⁰ IDAPA 58.01.25.300.12.d.ii
- ²¹ IDAPA 58.01.25.300.12
- ²² IDAPA 58.01.25.301.02
- ²³ IDAPA 58.01.25.010
- ²⁴ IDAPA 58.01.25.305.01.e
- ²⁵ IDAPA 58.01.25.305.01.d.ii
- ²⁶ 40 CFR 122.21(j)(6) and (7)
- ²⁷ 40 CFR 122.42(b)
- ²⁸ 40 CFR Part 403
- ²⁹ 40 CFR 403.5
- ³⁰ 40 CFR 403.8(f)(2)
- ³¹ 40 CFR 403.8(f)(2)
- ³² 40 CFR 403.8 (a)
- ³³ 40 CFR 403.9(b)(1)
- ³⁴ 40 CFR 403.8(f)(3)
- ³⁵ 40 CFR 403.18
- ³⁶ 40 CFR 403.5(c)
- ³⁷ 40 CFR 122.2
- ³⁸ IDAPA 58.01.25.302.13.
- ³⁹ IDAPA 58.01.25.300.05.a
- ⁴⁰ IDAPA 58.01.16.425.01
- ⁴¹ IDAPA 58.01.16.409.01
- ⁴² IDAPA 58.01.25.300
- ⁴³ IDAPA 58.01.17.300.02
- ⁴⁴ IDAPA 58.01.25.104
- ⁴⁵ IDAPA 58.01.02.052.06.c