

# **APPENDIX B**

## **Glossary of Terms**

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## APPENDIX B. GLOSSARY OF TERMS

This glossary includes a collection of some of the terms used in this manual and an explanation of each term. To the extent that explanations provided in this glossary differ from those in EPA regulations or other official documents, they are intended for use in understanding this manual only.

**Approval Authority**—The director of a National Pollutant Discharge Elimination System (NPDES) state with an approved state Pretreatment Program and the appropriate EPA Regional Administrator in a non-NPDES state or NPDES state without an approved state pretreatment program [40 CFR 403.3(c)].

**Baseline Monitoring Report (BMR)**—A report submitted by categorical Industrial Users within 180 days after the effective date of an applicable categorical Standard, which indicates the compliance status of the user with the categorical Standard [40 CFR 403.12(b)].

**Best Management Practices (BMPs)**—Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b). BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage [40 CFR 403.3(e)].

**Best Professional Judgment (BPJ)**—The highest-quality technical opinion of a permit writer, after consideration of all reasonable available and pertinent data or information, forming the basis for the terms and conditions of a permit.

**Categorical Pretreatment Standards**—Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Clean Water Act, that apply to specified process wastewaters of industrial categories [40 CFR 403.6 and Parts 405-471].

**Categorical Industrial User (CIU)**—An Industrial User subject to categorical Pretreatment Standards or categorical Standards.

**Combined Wastestream Formula (CWF)**—Procedure for calculating alternative discharge limits at industrial facilities in which a regulated wastestream from a categorical Industrial User is combined with other wastestreams *before* treatment [40 CFR 403.6(e)].

**Concentration Limit**—A limit based on the mass of pollutant per unit volume, usually expressed in milligrams per liter (mg/L).

**Control Authority**—A POTW with an approved pretreatment program or the Approval Authority in the absence of an approved POTW pretreatment program [40 CFR 403.3(f)].

**Conventional Pollutants**—Pollutants typical of municipal sewage, and for which municipal secondary treatment plants are typically designed; defined by federal regulation [40 CFR 401.16] as biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform bacteria, oil and grease, and pH.

**Daily Maximum Limit**—The maximum allowable discharge of a pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limits are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

**Development Document**—Detailed report of studies conducted by EPA for the purpose of developing categorical Pretreatment Standards.

**Dilute Wastestream**—For purposes of the combined wastestream formula, the average daily flow (at least a 30-day average) from (a) boiler blowdown streams, noncontact cooling streams, stormwater streams, and demineralizer backwash streams (provided, however, that where such streams contain a significant amount of a pollutant, and the combination of such streams, before treatment with an Industrial User's regulated process wastestream(s) will result in a substantial reduction of that pollutant, the Control Authority upon application of the Industrial User, may exercise its discretion to determine whether such stream(s) should be classified as dilute or unregulated. In its application to the Control Authority, the Industrial User must provide engineering, production, sampling and analysis, and such other information so that the Control Authority can make its determination); or (b) sanitary wastestreams where such streams are not regulated by a categorical Pretreatment Standard; or (c) from any process wastestreams that were, or could have been, entirely exempted from categorical Pretreatment Standards pursuant to paragraph 8 of the NRDC v. Costle Consent Decree (12 ERC 1833) for one or more of the following reasons (see Appendix D of 40 CFR 403):

- a. The pollutants of concern are not detectable in the effluent from the Industrial User [paragraph (8)(a)(iii)]
- b. The pollutants of concern are present only in trace amounts and are neither causing nor likely to cause toxic effects [paragraph(8)(a)(iii)]
- c. The pollutants of concern are present in amounts too small to be effectively deduced by technologies known to the Administrator [paragraph(8)(a)(iii)]; or
- d. The wastestream contains only pollutants which are compatible with the POTW [paragraph (8)(b)(i)] [40 CFR 403.6(e)].

**Director**—The chief administrative officer of a state or interstate water pollutant control agency with an NPDES permit program and state pretreatment program approved pursuant to section 402(b) of the Clean Water Act [40 CFR 403.3(g)].

**Flow Proportional Composite Sample**—A sampling method that combines discrete aliquots of a sample collected over time, based on the flow of the wastestream being sampled. Two methods are used to collect such a sample. One method collects a constant sample volume at time intervals that vary by stream flow (e.g., 200 milliliters (mL) sample collected for every 5,000 gallon discharged). The other method collects aliquots of varying volume, by stream flow, at constant time intervals.

**Flow-Weighted Averaging Formula (FWA)**—A procedure used to calculate alternative limits where wastestreams regulated by a categorical Pretreatment Standard and nonregulated wastestreams combine after treatment but before the monitoring point.

**Grab Sample**—A sample that is taken from a wastestream on a one-time basis with no regard to the flow of the wastestream and over a period of time not to exceed fifteen (15) minutes.

**Indirect Discharge**—The introduction of pollutants into a POTW from any nondomestic source regulated under section 307(b), (c), or (d) of the Clean Water Act [40 CFR 403.3(i)].

**Industrial User (IU) or User**—A source of nondomestic waste. Any nondomestic source discharging pollutants to a POTW.

**Instantaneous Maximum Limit**—The maximum limit allowable concentration of a pollutant determined from the analysis of any discrete or composited sample collected independent of the industrial flow rate and the duration of the sampling event.

**Interference**—A discharge that, alone or in conjunction with a discharge or discharges from other sources, both:

- a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- b. Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act [40 CFR 403.3(k)].

**Monthly Average Limit**—The highest allowable average of *daily discharges* over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

**National Pretreatment Standard, Pretreatment Standard, or Standard**—Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Clean Water Act that applies to Industrial Users. Such terms include prohibitive discharge limits established pursuant to 40 CFR 403.5 [40 CFR 403.3(l)].

**National Prohibited Discharges**—Prohibitions applicable to all nondomestic dischargers regarding the introduction of pollutants into POTWs set forth at 40 CFR 403.5.

**Net/Gross Calculations**—An adjustment to categorical Pretreatment Standards to reflect the presence of pollutants in the Industrial User's intake water [40 CFR 403.15].

**Ninety (90)-day Compliance Report**—A report submitted by a categorical Industrial User, within 90 days following the date for final compliance with applicable categorical Standards, or in the case of a New Source, following commencement of the introduction of wastewater into the POTW, that documents and certifies the compliance status of the user [40 CFR 403.12(d)].

**Nonconventional Pollutants**—All pollutants that are not included in the list of conventional or toxic pollutants in 40 CFR Part 401.

**Nondomestic User**—Any person or entity that discharges wastewater from any facility other than a residential unit.

**North American Industry Classification System (NAICS) Code**—The standard code used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

**Pass Through**—A discharge that exits the POTW into waters of the United States in quantities or concentration that, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit including an increase in the magnitude or duration of a violation [40 CFR 403.3(p)].

**Periodic Compliance Report**—A report on compliance status submitted by categorical Industrial Users to the Control Authority [40 CFR 403.12(e)].

**Pretreatment**—Reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties in wastewater before or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration may be obtained by physical, chemical or biological processes, process changes or by other means, except as prohibited by 40 CFR 403.6(d). Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the POTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with 40 CFR 403.6(e) [40 CFR 403.3(s)].

**Pretreatment Standards for Existing Sources (PSES)**—Defined at section 307(b) of the CWA. PSES are national, uniform, technology-based standards that apply to dischargers to POTWs from specific industrial categories (i.e. indirect dischargers). Dischargers subject to PSES are required to comply with those standards by a specified date, typically no more than 3 years after the effective date of the categorical standard. EPA promulgates categorical pretreatment standards for existing sources based principally on Best Available Technology Economically Achievable technology for existing sources.

**Pretreatment Standards for New Sources (PSNS)**—Defined at section 307(c) of the CWA. PSNS are national, uniform, technology-based standards that apply to dischargers to POTWs from specific industrial categories (i.e. indirect dischargers). The definition of new source is set out in 40 CFR 403.3(m) of the General Pretreatment Regulations. New indirect dischargers have the opportunity to incorporate into their plants the best available demonstrated technologies. Users subject to PSNS are required to achieve compliance within the shortest feasible time, not to exceed 90 days after beginning discharge.

**Process Wastewater**—Any water that, during manufacturing or processing, comes into direct contact with or results from producing or using any raw material, intermediate product, finished product, by-product, or waste product.

**Production-based Standards**—A discharge limitation expressed in terms of allowable pollutant mass discharge per unit of production.

**Publicly Owned Treatment Works (POTW)**—A treatment works as defined by section 212 of the Clean Water Act that is owned by a state or municipality (as defined by section 502(4) of the Clean Water Act). This includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the municipality, as defined in section 502(4) of the Clean Water Act, that has jurisdiction over indirect discharges to and the discharges from such a treatment works [40 CFR 403.3(q)].

**Regulated Wastestream**—An industrial process wastestream regulated by a national categorical Pretreatment Standard.

**Resource Conservation and Recovery Act (RCRA)**—A federal statute regulating the management of hazardous waste from its generation through ultimate disposal. The act contains requirements for waste generators, transporters, and owners and operators of treatment, storage, and disposal facilities (43 U.S.C. 6901 *et seq.*).

**Self-monitoring**—Sampling and analyses performed by the Industrial User to ensure compliance with a permit or other regulatory requirements.

**Significant Industrial User (SIU)**—(a) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and (b) any other that (i) 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); or (ii) contributes a process wastestream that makes up 5 percent or more of the average dry-weather hydraulic or organic (BOD, TSS, and such) capacity of the POTW treatment plant; or (iii) is designated as such by the Control Authority because the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)) [40 CFR 403.3(v)].

**Significant Noncompliance**—An Industrial User is in significant noncompliance if its violation meets one or more of the following criteria:

- a. Chronic violations of wastewater discharge limits, defined here as those in which 66 percent or more of all the measurements taken during a 6-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including instantaneous limits as defined by 403.3(l)
- b. Technical Review Criteria (TRC) violations, defined here as those in which 33 percent or more of all the measurements for each pollutant parameter taken during a 6-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement, including instantaneous limits as defined by 403.3(l) multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH)
- c. Any other violation of a pretreatment Standard or Requirement as defined by 40 CFR 403.3(l) (daily maximum, long-term average, instantaneous limit, or narrative standard) that the POTW determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public)
- d. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare, or to the environment or has resulted in the POTW's exercise of its emergency authority under paragraph 40 CFR 403.8(f)(1)(vi)(B) halt or prevent such a discharge
- e. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance
- f. Failure to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules
- g. Failure to accurately report noncompliance
- h. Any other violation or group of violations, that could include a violation of best management practices, that the POTW determines would adversely affect the operation or implementation of the local pretreatment program

**Slug Discharge**—Any discharge of a nonroutine, episodic nature, including an accidental spill or a noncustomary batch discharge, which has a reasonable potential to cause interference or pass through, or in any other way violate the POTW's regulations, local limits, or permit conditions [40 CFR 403.8(f)(2)(vi)].

**Slug Discharge Control Plan**—A plan prepared by an Industrial User that describes the discharge practices, including nonroutine batch discharges. The plan contains a description of stored chemicals, procedures for immediately notifying the POTW of slug discharges, and, if necessary, procedures to prevent adverse effects from accidental spills.

**Slug Load**—Any pollutant (including BOD) released in a discharge at a flow rate or concentration which will cause a violation of the specific discharge prohibitions in 40 CFR 403.5(b).

**Spill Prevention and Control Plan**—A plan prepared by an Industrial User to minimize the likelihood of a spill and to expedite control and cleanup activities if a spill occurs.

**Split Sample**—A portion of a collected sample given to the industry or to another agency to verify or compare laboratory results.

**Standard Industrial Classification (SIC) Code**—A classification scheme based on the type of manufacturing or commercial activity at a facility; some facilities have several activities that cause them to have more than one code.

**Time Proportional Composite Sample**—A sampling method that combines discrete sample aliquots of constant volume collected at constant time intervals (e.g., 200 milliliter samples collected every half hour for a 24-hour period). This method provides representative sample only where the sampled stream flow is constant, or where the volume is manually adjusted according to stream flow variation before being added to the composite sample container.

**Total Toxic Organics (TTO)**—The sum of the masses or concentrations of the specific toxic organic compounds regulated by specific categorical pretreatment regulations that is found in the discharge at specific quantifiable concentrations. (To identify which compounds are regulated, what numeric value is considered *quantifiable*, and what sampling or certification alternatives might be available, refer to the specific categorical regulations.)

**Toxic Organics Management Plan**—A written plan submitted by Industrial Users in accordance with some categorical Pretreatment Standards as an alternative to TTO monitoring that specifies the toxic organic compounds used, the method of disposal used, and procedures for assuring ensuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW.

**Toxic Pollutant**—Pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. Toxic pollutants also include those pollutants listed by the Administrator under CWA Section 307(a)(1) or any pollutant listed under Section 405(d) which relates to sludge management.

**Treatability Manual**—Five-set library of EPA guidance manuals that contain information related to the treatability of many pollutants. The manual provides detailed descriptions of industrial processes, potential pollutants from each process, appropriate treatment technologies, and cost-estimating procedures. This manual can be used in developing NPDES permit limitations for facilities and/or pollutants which, at the time of permit issuance, are not subject to industry-specific effluent guidelines. The five volumes that comprise this series include: Vol. I - Treatability Data (EPA-600/8-80-042a); Vol. II -Industrial Descriptions (EPA-600/8-80-042b); Vol. III - Technologies (EPA-600/8-80-042c); Vol. IV - Cost Estimating (EPA-600/8-80-042d); Vol. V - Summary (EPA-600/8-80-042e).

**Unregulated Wastestreams**—For purposes of the combined wastestream formula, a wastestream that is not regulated by a national categorical Pretreatment Standard and is not considered a dilute wastestream.

**Upset**—An exceptional incident in which unintentional and temporary noncompliance with the categorical Pretreatment Standards occurs because of factors beyond the reasonable control of the Industrial User. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 CFR 403.16(a)].

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