

SECTION I

INTRODUCTION

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A. VPDES Permit Program

The Clean Water Act (CWA), Section 402, requires all point source discharges of pollutants to waters of the United States to obtain a National Pollutant Discharge Elimination System (NPDES) permit from either the U. S. Environmental Protection Agency (EPA) or a State authorized to issue the NPDES permit. To obtain this authorization, the State must have a Law and NPDES regulations comparable to the CWA and the EPA NPDES regulation. In addition, the State and EPA must agree to a Memorandum of Agreement (MOA) which establishes various operating procedures, such as the transfer of information between the two agencies and EPA's involvement in the daily activities of the State's administration of the permit program.

The Virginia State Water Control Board (SWCB) was authorized in 1975 by EPA to administer the NPDES Permit Program. The memorandum "Regarding Permit and Enforcement Programs between the SWCB and EPA" was signed in March 1975. EPA recognized that the State Water Control Law (SWCL) and the SWCB Regulation No. 6 provided adequate authority to carry out the federal program. This MOA was amended in 1982 to authorize the SWCB to administer the NPDES Permit Program for Federal facilities. It was amended in April, 1989 to include authorization for the federal pretreatment program and again in May, 1991 to include authority to issue general permits. The permit program name changed from NPDES to VPDES to indicate Virginia as the permitting agency when the Permit Regulation was adopted on July 1, 1988. This regulation was substantially rewritten in 1996 with the adoption of the VPDES Permit Regulation. The effect of this program delegation from EPA is that any point source discharger of pollutants in Virginia that obtains a VPDES permit from the SWCB and that subsequently complies with the issued VPDES permit is in compliance with both Federal and State Laws and regulations regarding such permit requirements.

On April 1, 1993 the State Water Control Board staff functions were merged by legislative action into the Department of Environmental Quality (DEQ), which was created on that date. In addition, the staff functions of the Department of Air Pollution Control, the Department of Waste Management, and the Council on the Environment were also merged into DEQ.

This permit manual describes the procedures for processing VPDES permits to ensure the SWCL, the VPDES Permit Regulation and the MOA are met. It presents the procedures for obtaining a complete application, preparing a draft VPDES permit, subjecting the draft permit to the public participation process, and issuing/reissuing/modifying/revoking and reissuing/terminating and denying permits.

According to 9VAC25-31-90, "the department may develop and use guidance, as appropriate, to implement technical and regulatory details of the VPDES permit program. Such guidance is distinguished from regulation by the fact that it is not binding on either the department or permittees. If a more appropriate methodology than that called for in guidance is available in a given situation, the more appropriate methodology shall be used to the extent it is consistent with applicable regulations and the State Water Control Law."

B. Purpose and Use of the Permit Manual

The purposes of this Permit Manual are to:

1. Provide VPDES permit writers, reviewers, and managers the procedures to ensure that:
 - a. Individual VPDES permits are issued/reissued/denied/modified/terminated/revoked and reissued according to Federal and State Laws and Regulations.
 - b. VPDES program is administered pursuant to our commitment to EPA;
2. Establish statewide procedures that promote Regional Office consistency when processing VPDES permits;
3. Define and set benchmark standards for the timely Regional Office processing of applications and permits; and
4. Provide a document that is a training tool for new staff in the correct procedures for administering the VPDES permit program.

The manual establishes procedures for application processing and permit issuance, reissuance, denial, modification, revocation and reissuance, and termination. It also contains definitions of terms, addresses, example forms and letters, and industrial and municipal permit language (including testing, sampling frequencies, effluent limitations and special conditions). Users should note that some procedures described in the manual are not universally applicable. Where a procedural step is unique to a particular process or type of permit, it will be indicated with a notation. **The processing of coverage under general VPDES permits is not addressed in this manual. Permit writers should consult the implementation procedures for each general permit for specific instructions.**

The department develops and uses guidance to implement technical and regulatory details of the VPDES permit program. The text of this procedural manual will be revised periodically to reflect newly issued VPDES permitting guidance memoranda. These revisions will also be posted on the agency's internal and external website. Users should refer to the electronic version of the manual on the website if they are in doubt whether or not they have the latest pages.

DISCLAIMER

This document provides implementation procedures to the DEQ permit staff. It does not establish or affect legal rights or obligations. It does not establish a binding norm and is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the State Water Control Law and the implementation regulations on the basis of the site-specific facts when permits are issued.

C. Basis of Manual

The following documents provide the legal and regulatory basis for this manual.

1. [Clean Water Act \(CWA\) \(Public Law 92-500 as amended\)](#)
2. [State Water Control Law \(SWCL\) \(Code of Virginia 62.1-44.2 et seq.\)](#)
3. [VPDES Permit Regulation \(9VAC25-31\)](#)
4. [Procedural Rule No. 1 - Public and Formal Hearing Procedures \(9VAC 25-230\)](#)
5. [SWCB/EPA Memorandum of Agreement](#)
6. [Promulgated EPA Effluent Guidelines \(40 CFR Parts 400 through 699\)](#)
7. [Virginia Water Quality Standards \(9VAC25-260\)](#)
8. State Water Control Board Approved Policies and Procedures
9. [Sewage Collection and Treatment Regulation \(9VAC25-790\)](#)

D. Abbreviations

ADA	American Disabilities Act
APLR	Annual Pollutant Loading Rate
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BEJ	Best Engineering Judgement
BMP	Best Management Practices
BNA	Bureau of National Affairs
BPJ	Best Professional Judgement
BPT	Best Practicable Control Technology Currently Available
BUR	Biosolids Use Regulation
CEDS	Comprehensive Environmental Data System
CFR	Code of Federal Regulations
CPLR	Cumulative Pollutant Loading Rate
COE	Corps of Engineers
CTC	Certificate to Construct
CTO	Certificate to Operate
CWA	Clean Water Act
DEQ	Department of Environmental Quality
DWR	Division of Wildlife Resources
DSS	Division of Shellfish Sanitation
DMR	Discharge Monitoring Report
DPL	Division of Policy and Legislation
ECM	Enterprise Content Management
e-DMR	Electronic Discharge Monitoring Report
EPA	U S Environmental Protection Agency
EQ	Exceptional Quality (sludge)
FDF	Fundamentally Different Factor
FFRF	Flow Frequency Request Form
F&WS	Fish and Wildlife Service
FS	Fact Sheet
IWC	Instream Waste Concentration
ISWGP	Industrial Stormwater General Permits (VPDES)
LGOF	Local Government Ordinance Form
LUST	Leaking Underground Storage Tanks
MGD	Million Gallons per Day
MOA	Memorandum of Agreement
MS4	Municipal Separate Storm Sewer System
MSGP	Multi-Sector General Permit (EPA Industrial Stormwater General Permit)
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
OIS	Office of Information Services
OLAP	Office of Land Application Programs
OWQS	Office of Water Quality Standards
PEEP	Permitting Enhancement and Evaluation Platform
PC	Pollutant Concentration (sludge)
PN	Public Notice
POTW	Publicly Owned Treatment Works

PVOTW	Privately Owned Treatment Works
PWS	Public Water Supply
RD	Regional Director
RO	Regional Office
SASS	Stream Analysis for Small Systems
SCAT	Sewage Collection and Treatment Regulation
SCC	State Corporation Commission
SFH	Single Family Home
SIC	Standard Industrial Classification
SOB	Statement of Basis
STP	Sewage Treatment Plant
SWCB	State Water Control Board
SWCL	State Water Control Law
TMDL	Total Maximum Daily Load
TMP	Toxics Management Program
TRC	Total Residual Chlorine
TWTDS	Treatment Works Treating Domestic Sewage
TSS	Total Suspended Solids
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VDH	Virginia Department of Health
VIMS	Virginia Institute of Marine Science
VMRC	Virginia Marine Resources Commission
VPA	Virginia Pollution Abatement (Permit)
VPDES	Virginia Pollutant Discharge Elimination System
VWPP	Virginia Water Protection Permit
WPM	Water Permit Manager
WQS	Water Quality Standards
WET	Whole Effluent Toxicity

E. Definitions

Approved program or approved State - a State or interstate program which has been approved or authorized by EPA under Part 123.

Allocated Impact Zone - A sub area within a mixing zone. The concentrations within this zone may be higher than the concentrations specified by the acute standards but the exposure time must be sufficiently short to avoid lethality.

Average weekly discharge limitation - means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Available Technology Economically Achievable (BAT) - for discharges of nonconventional and toxic pollutants from existing industrial point sources. This treatment represents the best existing performance for the industrial category or subcategory. It is based on the very best pollution control and treatment measures developed to date or measures that are capable of being developed. BAT limitations are subject to "fundamentally different factors" variances (9VAC25-31-100 L). The deadline for compliance with BAT limitations was March 31, 1989.

Best Conventional Pollutant Control Technology (BCT) - for discharges of conventional pollutants from existing industrial point sources. BCT replaces BAT for the control of conventional pollutants and BCT limits must be at least as stringent as BPT limits. The CWA, § 304, requires that BCT limitations be assessed in light of a two part "cost reasonableness" test. The first test compares the cost for private industry to reduce its conventional pollutants to the costs of publicly owned treatment works (POTW) to reduce their conventional pollutants. The second test examines the cost effectiveness of additional industrial treatment beyond BPT. EPA must find that limitations are "reasonable" under both tests before establishing BCT. The deadline for compliance with BCT limitations was March 31, 1989.

Best Management Practices (BMPs) - schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce water pollution. BMPs may address plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Best Practicable Control Technology Currently Available (BPT) - technology based limitations in which the total cost of applying the technology is balanced against the effluent reduction benefits. BPT was the first level of effluent standards established by the CWA. It applies to conventional, nonconventional and toxic pollutants. Limitations are generally based on existing performance of various sized plants within the industry or subcategory. -The deadline for compliance with BPT requirements was July 1, 1977.

Bypass (9VAC25-31-10) - the intentional diversion of waste streams from any portion of a treatment facility.

Biochemical Oxygen Demand (BOD) - the amount of oxygen used by bacteria when decomposing organic matter. This may include the oxygen consumed by reduced forms of nitrogen (nitrogenous demand) as well as the organics (carbonaceous demand).

Carbonaceous Biochemical Oxygen Demand (CBOD) - the oxygen required for the biochemical degradation of organic matter. Excludes oxygen used to oxidize reduced forms of nitrogen (nitrogenous demand).

Certified Mail – means postal certified mail, except for the mailing of plan approvals, permits, or certificates issued under the provisions of chapter 10.1 of the Code of Virginia and the State Water

Control Law (§ 62.1-44.2 et seq.) where the recipient has notified the Department of his consent to receive plan approvals, permits, or certificates by electronically certified mail.

Chemical Oxygen Demand (COD) - a quantitative measure of the amount of oxygen required for the chemical oxidation of inorganic and organic material in wastewater.

Clean Water Act (CWA) - (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Laws 95-217, 96-483, 97-117, 33 U.S.C. 1251 et. seq.

Complete Application – an application is complete when all necessary blanks are accurately filled in, the proper signature applied, all necessary documents are attached, the permit fee paid, and no further information from the permittee is necessary to develop the fact sheet and draft permit.

Completely Mixed - The condition where there is no more than a specified difference in the concentration of a material across the width and/or depth of a flowing stream. Note that, when referring to a lake or estuary, complete mix may need to be defined to include the length of the water body as well as the width and depth. However, this consideration is not addressed herein.

Composite Sample - means a combination of individual samples of water or wastewater taken in proportion to flow or time which ensures that a representative sample is obtained. Composites can represent samples collected over 24 hours or they may be from shorter time periods (e.g., 8-hour composite).

Consent Decree - a unilateral instruction by a judge to the parties involved (this may or may not involve DEQ/SWCB).

Consent Order - an administrative action of the State Water Control Board directed to a permittee.

Continuous discharge (9VAC25-31-10) - a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Control measure means any best management practice or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to surface waters.

Conventional Pollutants (40 CFR Part 401.16) - pollutants which have biodegradable, oxygen demanding materials and solids which have characteristics similar to naturally occurring biodegradable substances (e.g., total suspended solids, BOD, pH, oil and grease).

Daily discharge (9VAC25-31-10) - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents a calendar day for the purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement (e.g., concentration) "daily discharge" is calculated as the average measurement of the pollutant over the day.

Design Flow - based on the design capacity of the facility, which is determined as the average rate of influent flow per 24 hours that can be reliably treated by that facility based on flows received at full build out. The facility must be designed to process this influent flow 365 days a year with appropriate peak factors provided to meet reliability and redundancy requirements.

Director -the EPA Regional Administrator or the DEQ Director, as the context requires, or an authorized representative.

Discharge of a pollutant (9VAC25-31-10) - a) any addition of any pollutant or combination of pollutants to surface waters from any "point source,"; or (b) any addition of any pollutant or

combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft used as a means of transportation.

Discharge Monitoring Report (DMR) (9VAC25-31-10) - a form (including e-DMR) approved by the department for the reporting of self-monitoring results by permittees.

Domestic Facility - means any facility that treats kitchen and bathroom waste with no direct or indirect contribution of industrial process waste and is not a POTW or PVOTW.

Draft permit (9VAC25-31-10) - a document indicating the tentative decision to issue, deny, reissue, modify, revoke and reissue, or terminate a permit. A Notice of Intent to Terminate is a type of draft permit but denials of requests for modification, revocation and reissuance or termination are not.

Drifting organism - means a planktonic aquatic organism depending solely on the stream current for bulk movement. A drifting organism is unable to move against the current. A drifting organism has a mean velocity at least equal to the mean velocity of the current through a PMA or RMZ.

Dry season - the contiguous months that have a monthly average flow less than or equal to the period of record average flow.

Effluent Limitation (9VAC25-31-10) - any restriction imposed by the department on quantities, discharge rates, and concentrations of pollutants discharged from point sources into surface waters, the waters of the contiguous zone or the ocean.

Effluent Limitations Guidelines (9VAC25-31-10) - a regulation published by the EPA Administrator under section 304(b) of CWA to adopt or revise effluent limitations. (See 40 CFR Parts 400 through 699)

Ephemeral Stream - any drainage way, ditch, hollow, or swale that contains only (1) flowing water during or immediately following periods of rainfall or (2) water supplied by the discharger.

Estuarine Waters - those waters located at the mouth of a river where the river current meets the tide. Consult the Water Quality Standards regulation, 9VAC25-260-140 C, for specific designations of estuarine waters in Virginia.

Facility or activity (9VAC25-31-10) - any VPDES point source, or treatment works treating domestic sewage or any other facility, or activity (including land or appurtenances thereto) that is subject to regulation under the VPDES program.

Fall Zone - an imaginary line or narrow zone marking the points where rivers make a sudden descent from the Piedmont Plateau to the Atlantic Coastal Plain. It also marks the limit of navigability of the rivers.

General Permit - a regulation promulgated under 9VAC25-31-170 to provide permit coverage to a class of facilities with similar effluent characteristics. Instead of applying for and being issued an individual permit, facilities qualifying for a general permit submit a registration statement and are then covered under the general permit.

Grab Sample - means an individual sample collected at a randomly selected time over a period not exceeding 15 minutes.

Gray Water - the term given to domestic wastewater composed of washwater from sinks, kitchen sinks, bathroom sinks, showers and tubs and laundry tubs.

Harmonic Mean - the critical receiving stream flow used to calculate carcinogenic human health standards. It is the reciprocal of the arithmetic mean of the flow reciprocals.

Hazardous Substance - any substance designated under the Code of Virginia or 40 CFR Part 116 pursuant to Section 311 of CWA.

High Flow Season - the two or more contiguous months that have a monthly average flow greater than the period of record average flow.

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 and the SWCL.

Indirect Discharger (9VAC25-31-10) - a nondomestic discharger introducing pollutants to a publicly owned treatment works.

Industrial Facility - establishments with activity in which they are engaged as an economic unit, generally at a single location where business is conducted, services or industrial operations performed, or in which raw materials are changed into useful products.

Instream Waste Concentration (IWC) - the concentration of an effluent, expressed as a percentage, which occurs in the receiving waterbody after complete mixing.

Internal Outfall - a discharge point within a facility which combines with one or more flow streams prior to releasing to a surface water.

Intermittent Stream - a stream that contains flowing water for extended periods during a year but does not carry flow at all times.

Laboratory Inspection - a comprehensive review of a lab's sampling, analytical, and record-keeping procedures. The inspection is documented on the DEQ Laboratory Inspection Report form.

Lethality, (includes "acute lethality") - In reference to a specific chemical, lethality means the exposure of an organism to concentrations higher than the acute criteria listed in 9 VAC 260-25-140.B for a period of one hour or longer.

Low Flow Season - the two or more contiguous months that have a monthly average flow less than or equal to the "period of record average flow".

Major Facilities - municipal facilities with design capacities equal to or greater than 1.0 MGD and industrial facilities that score 80 or more points on the NPDES Permit Rating Worksheet. Permits for major facilities must go to EPA for review and concurrence prior to issuance.

Maximum daily discharge limitation (9VAC25-31-10) - the highest allowable daily discharge.

Minor Facilities - all facilities not falling within the major category.

Minor Modification - permit modifications which do not require public notice and opportunity for hearing. (Refer to 9VAC25-31-400)

Mixing Zone: An area or volume in a stream wherein mixing is allowed. All criteria may be exceeded within this zone but must be met at its boundaries.

Mixing zone concepts - The concentration of pollutants and the exposure times for various classes of non-resident organisms are estimated for locations near an effluent outfall. These are compared to the requirements of the mixing zone standard to ascertain if the expected PMA results in conditions sufficient to justify a complete mix assumption or if a RMZ must be specified in the VPDES permit for that outfall.

Model - a series of mathematical equations directed at predicting a quantitative relationship between a particular waste stream and its impact on the quality of the receiving waters. Models may be calibrated and verified with field data.

Monthly average discharge limitations (9VAC25-31-10) - the highest allowable average of "daily discharges" over a calendar month, being either the value of the single monthly measurement or

calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

Monthly average stream flow - this is the average of all the flows measured in a particular month over the entire period of record. Stream flow values for individual years are tabulated in the U.S.G.S Water Resources Data books. The value for the period of record must be calculated using these values.

Municipal Facility - a treatment works, other than an industrial facility, whose primary function is to receive and treat wastewater from domestic sources or from indirect industrial sources. Analogous to TWTDS.

Municipality (9VAC25-31-10) - a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of CWA.

New Discharger (9VAC25-31-10) - any building, structure, facility or installation from which there is or may be a discharge of pollutants and which:

1. on August 13, 1979, had never discharged pollutants;
2. has never received a final effective VPDES permit for discharges at the site; and
3. cannot be defined as a new source; or
4. is an indirect discharger that begins discharging to State waters after August 13, 1979 and does not have an existing permit.

New Source (9VAC25-31-10) - any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after publication of proposed standards of performance under Section 306 of the Act applicable to such source if such standards are thereafter promulgated in accordance with that section within 120 days of their proposal.

New Source Performance Standards - effluent limitations or guidelines that apply to facilities that can be defined as new sources. NSPS represent the most stringent numerical values attainable through the application of the best available demonstrated control technology for all pollutants (toxic, conventional and nonconventional).

Nonconventional Pollutants - pollutants not specifically designated as a toxic pollutant in Section 307(a)(1) of the Clean Water Act, or not a conventional pollutant (e.g., COD, ammonia, phosphorus).

Non-Process Wastewater - water that does not contact raw materials, intermediate products, finished products, by-products, waste, or wastewater (e.g., noncontact cooling water).

NPDES Permit Rating Worksheet - an EPA provided mechanism used to classify industrial permits as major or minor.

Nutrient Enriched Water - a special standard set by the SWCB based on an evaluation of the historical water quality data for one or more of the following indicators of nutrient enrichment: chlorophyll "a" concentrations, dissolved oxygen fluctuations, and concentrations of total phosphorus. Locate these waters in the WQS Nutrient Enriched Waters, 9VAC25-260-350. Currently, these special standards only apply to four free flowing non-Bay watersheds due to adoption of nutrient criteria for the Chesapeake Bay.

1Q10 - the critical receiving stream flow used to calculate acute aquatic life standards. It is the lowest stream flow which, on a statistical basis, would occur over a 1-day period once every 10 years.

Overflow - the unintentional discharge of wastes from any portion of a treatment works.

Passing organism - A free swimming aquatic organism that has a mean velocity, in any direction, at least equal to the mean velocity of the current through a PMA or RMZ.

Permanent Stream - a stream that contains flowing water at all times, absent anthropomorphic influences, and has a well-established aquatic community.

Period of record average flow - this is the average of all the flows measured over the entire period of record. This value is published in the U.S.G.S. Water Resources Data books.

Physical Mixing Area (PMA) - The actual physical space required for an effluent to become completely mixed with its receiving stream. Note that, by definition, a PMA must extend from the discharge point to the complete mix point and must eventually occupy the entire width and depth of the receiving water. The size of a PMA and the distribution of materials within it are functions of the design of the outfall structure, the relative volumes and velocities of the mixing streams and the physical conditions in the stream. Changes in any of these parameters will usually result in a different PMA. However, the discharge of an effluent always results in a PMA and always requires a finite time and space regardless of the characteristics of the mixing streams.

In this regard, please note that physical mixing always takes place. When a mixing zone is "not allowed" what it really means that the parameter of interest must be equal to the ambient or background concentration prior to discharge (e.g. "end of pipe" limits equal to the existing quality of the stream).

Point Source (9VAC25-31-10) - any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agricultural land or agricultural storm water runoff.

Pollutant (9VAC25-31-10) - dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean: 1) Sewage from vessels; or 2) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the department, and if the department determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Pollution (§ 62.1-44.3) - means such alteration of the physical, chemical or biological properties of any state waters as will or is likely to create a nuisance or render such waters: (a) harmful or detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses; provided that (i) an alteration of the physical, chemical, or biological property of state waters, or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution, but which, in combination with such alteration of or discharge or deposit to state waters by other owners is sufficient to cause pollution;

(ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the department, are "pollution".

Primary Industry Category - any industry category listed in 40 CFR, Part 122, Appendix A.

Priority Pollutants - serve as the basis for BAT, new source performance standards, and pretreatment standards for new and existing sources. The 126 priority pollutants consist of 111 organics, 13 heavy metals, cyanide, and asbestos. (Promulgated by EPA in 1976).

Privately Owned Treatment Works (PVOTW) (9VAC25-31-10) - any device or system which is: 1) used to treat wastes from any facility whose operator is not the operator of the treatment works; and 2) is not a POTW.

Process Wastewater (9VAC25-31-10) - any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

Professional Judgement (PJ) – limitations or conditions developed on a technology or water quality basis for a category of discharges or for individual discharges. Case-by-case PJ limitations or conditions may be developed by DEQ staff based on knowledge of treatment processes, analytical data, empirical evidence from similar facilities, site conditions, etc. Limitations or conditions that are to be applied to a category of discharges, when EPA guidelines have not been promulgated, may only be established in accordance with the applicable requirements of 40 CFR Part 125 and the Virginia Administrative Process Act. As a general rule, BPJ for BCT limitations are set using promulgated BPT guidelines. Rationale for all PJ limitations and conditions should be provided in the FS. PJ is not an independent basis for VPDES limitations or other requirements, although it is a proper basis, based on facts and proper reasoning, for determinations leading to or part of water quality-based requirements. All POTW requirements must be based on either water quality protection or secondary treatment or other technology-based requirements established by regulation.

Publicly Owned Treatment Works (POTW) (9VAC25-31-10) - any device or system used in the treatment of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality. Sewers, pipes, or other conveyances are included in this definition only if they convey wastewater to a POTW providing treatment.

Quantification Level (QL) - the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

Reissuance - internal DEQ language not defined in the regulations. Reissuance refers to the issuance of a permit which has previously been issued.

Regulatory mixing zone (RMZ) - An area or volume in a stream, the boundaries of which must be specified in a VPDES permit or other legal document adopted or approved by the department or its designee, wherein a specific amount of mixing is allowed to take place. The maximum size of a RMZ is specified in the water quality standards at 9VAC25-260-20.B.

Resident organism - means any organism that has a mean velocity less than the mean velocity of the current through a PMA or RMZ.

Schedule of Compliance (9VAC25-31-10) - a schedule of remedial measures in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the SWCL, the CWA and regulations.

Seasonal Low Flow (Seasonal 7Q10) - the seven consecutive day average flow that occurs during the wet season with a 10-year recurrence.

Seasonal year - this year is analogous to the "water year" used for flood analysis and the "climatic year" used for annual 7Q10 analysis. It is defined as beginning on the first day of the dry season and ending on the last day of the wet season.

Secondary Treatment - the second step in most waste treatment systems in which bacteria consume the organic parts of the waste. It is accomplished by bringing together waste, bacteria, and oxygen in trickling filters or in the activated sludge process. The minimum technology-based level of effluent quality attainable by municipal facilities, with secondary treatment, is currently 30 mg/l for BOD and TSS and pH 6.0-9.0. (See 40 CFR Part 133)

7Q10 - the critical receiving stream flow used to calculate chronic aquatic life standards. It is the low flow which, on a statistical basis, would occur for a 7 consecutive day period once every 10 years.

Shall - means a mandatory requirement.

Should - means a recommendation.

Single Family Home - means a treatment works with a design capacity ≤ 1000 gpd at a single family dwelling. This does not include treatment works at duplexes, apartments, etc.

Standard Industrial Classification (SIC) - is the classification of establishments by type of activity in which they are engaged. The SICs are listed in the U.S. Office of Management and Budget Standard Industrial Classification Manual.

State Waters (§ 62.1-44.3)- all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction.

Stormwater Runoff - water discharged as a result of rain, snow, or other precipitation.

Stormwater Associated with Industrial Activity (See the definition at 9VAC25-31-10)

Technical Inspection - a complete and detailed evaluation of the operations and maintenance of the wastewater treatment process and/or sludge treatment process, and an evaluation of the facility's record keeping, sampling, lab testing procedures, and pretreatment program implementation. The inspection is documented on the VDH-SWCB Wastewater Facility Inspection Report form.

Technology-based Effluent Limitation – a limit based on federal effluent guidelines regulations, 40 CFR Parts 400 through 699.

TKN (Total Kjeldahl Nitrogen) - the sum of ammonia-nitrogen and organic nitrogen, determined together by one analytic technique.

30Q5 - the critical receiving stream flow which is used to calculate the non-carcinogenic human health standards. It is the lowest stream flow which, on a statistical basis, would occur for a 30 day consecutive period once every 5 years.

30Q10 - the critical receiving stream flow which is used to calculate ammonia waste load allocations. It is the lowest stream flow which, on a statistical basis, would occur for a 30 day consecutive period once every 10 years.

Tiered (Seasonal) Limits - tiers are used in permits to establish effluent limits associated with a "wet season" and a "dry season", or "cold" and a "warm" season. There should be no more than two tiers in a permit primarily because of the administrative and technical difficulties of drafting, tracking, monitoring and enforcing the permit. Tiered permit limits are acceptable for TKN, ammonia, CBOD, BOD and the associated TSS. [Even though ammonia has toxic properties, it is nonpersistent and biodegradable and therefore tiering ammonia limits is acceptable]. The toxics

listed in the Water Quality Standards should not be tiered due to the potential for bioaccumulation. The volatile portion of the toxic pollutants do not have a pronounced tendency to bioaccumulate, but may have interactions with others that do have that tendency.

Toxicity - the inherent potential or capacity of a material to cause adverse effects in a living organism, including acute or chronic effects to aquatic life, bioaccumulation of pollutants in the tissues of aquatic organisms at levels which result in potential harm to the organism or pose a risk to organisms in the food chain, or detrimental effects on human health or other adverse environmental effects.

Treatment Facility - only those mechanical power driven devices necessary for the transmission and treatment of pollutants (e.g., pump stations, unit treatment processes).

Treatment Works - any devices and systems used for the storage, treatment, recycling and/or reclamation of sewage or liquid industrial waste, or other waste or necessary to recycle or reuse water, including intercepting sewers, outfall sewers, sewage collection systems, individual systems, pumping, power and other equipment and their appurtenances; extensions, improvements, remodeling, additions, or alterations thereof; and any works, including land that will be an integral part of the treatment process or is used for ultimate disposal of residues resulting from such treatment; or any other method or system used for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste or industrial waste, including waste in combined sewer water and sanitary sewer systems.

Treatment Works Treating Domestic Sewage (TWTDS) - a POTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. For purposes of this definition, domestic sewage includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works.

"Virginia Environmental Excellence Program" or "VEEP" means a voluntary program established by the department to provide public recognition and regulatory incentives to encourage higher levels of environmental performance for program participants that develop and implement environmental management systems (EMSs). The program is based on the use of EMSs that improve compliance, prevent pollution, and utilize other measures to improve environmental performance.

Wasteload Allocation (WLA) - a calculation used in establishing limits for water quality standard parameters. The wasteload allocation represents the amount of a pollutant a given facility is allowed to discharge to a receiving stream. However, the wasteload allocation may not be the same as the permit limit.

Water Quality Standards - regulations that describe water quality requirements in general terms or numerical limits for specific physical, chemical and biological characteristics of water. Water quality standards consist of numeric or narrative water quality criteria, use designations for state waters and an antidegradation policy. These statements and limits serve as the enforceable means, particularly through their use in VPDES permit limits and certification of 401 applications, to protect the beneficial use of State waters such as swimming, fishing, propagation and growth of aquatic life, and domestic water supply. (See 9VAC25-260-00 et seq.)

Weekly average discharge limitation (9VAC25-31 10) - the highest allowable average of "daily discharges" over a full calendar week, calculated as the sum of all "daily discharges" measured during a full calendar week divided by the number of "daily discharges" measured during that week.

Wet season - The contiguous months that have a monthly average flow greater than the period of record average flow.