



## FACT SHEET, INFORMATION and RATIONALE

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The DWWM has determined that these discharges still need to be regulated to protect State waters and is therefore proposing to reissue this General Permit. All facilities that are currently permitted shall be required by the agency to renew their current WV/NPDES Water Pollution Control Permit for small sewage treatment systems serving individual residences through this reissued permit.

Only those sewage treatment systems serving the connection of single-family dwellings and certain small commercial facilities (food service facilities and industrial wastes are strictly prohibited) with flows of 600 GPD or less will be provided coverage under this permit.

Coverage under this permit will be required, through site registration, prior to construction of the facility.

Coverage under this permit will be issued jointly to the owner and operator (maintenance contractor) of the facility. Facilities without a maintenance contract providing perpetual coverage through the permit period will not be granted coverage under this permit.

Coverage under this permit will be required for all proposed facilities, existing facilities installed under previous agreement and facilities to correct existing problems.

Applicants for new construction will be required to secure a Waste Load Allocation (WLA) prior to filing application for coverage under this permit. This procedure is used to determine if the receiving stream is available for discharge and the type of treatment needed to protect the State Water Quality Standards.

This General Permit prohibits permittees from cancelling the maintenance contract without prior approval of this agency. This is to further ensure that the permitted facility is properly operated and remains under a maintenance contract.

Upon receipt of the registration application form, the Division will review the contained information and prescribed WLA and will assign each individual permittee to one of the four (4) available treatment categories. Individual permittees must comply with the effluent limitations of their assigned treatment category and must provide the required treatment technology for their category.

The universe of existing facilities which are eligible for regulation under the general permit numbers approximately 7,000. Currently permitted facilities wishing to continue discharging under the new general permit will be required to submit a completed site registration application form. Although, any facility registered during the last six months of the current general permit term will automatically be provided coverage under the new general permit without being required to submit a new site registration application form. However, these facilities will be required to submit a new maintenance contract valid for the 5-year term of the new general permit. To provide for continued permit coverage during the reissuance process, the existing general permit will be extended for six months.

### 7. DESCRIPTION OF DISCHARGES:

Discharges from regulated facilities will be typical of treated domestic sewage wastewater and will have the following expected effluent qualities, depending upon Limitation Category assigned based on WLA:

pH range: 6 - 9 standard units

Flow: 600 gallons per day or less

Dissolved Oxygen: Not less than 6.0 mg/l at any given time

Parameter	Effluent Concentration	
	Monthly Avg.	Daily Max.
Biochemical Oxygen Demand (mg/l)	5 - 30	10 - 60
Total Suspended Solids (mg/l)	30	60
Fecal Coliform (counts/100 ml)	200	400
Total Residual Chlorine ( $\mu\text{g/l}$ )	28	57
Ammonia, Nitrogen (mg/l)	3	6

## 8. PROPOSED DISCHARGE LIMITATIONS AND TREATMENT REQUIREMENTS

Facilities that are covered under the current general permit, facilities with complete and approvable pending general permit registration/applications, and facilities with complete and approvable pending applications for individual WV/NPDES permits will be covered upon issuance of this general permit. Based upon the most recent wasteload allocation calculations, the facility will be assigned a treatment category and a maximum flow limitation. The assigned treatment category will be the one that most closely approximates the wasteload allocation; however, in no case will the limitations of the assigned category be less stringent than the limitations of the wasteload allocation. Completion of a registration form will be required. Please refer to effluent limitations for each category in Section A.1 thru A.4. of the General Permit

## 9. RATIONALE FOR PROPOSED DISCHARGE LIMITATIONS AND TREATMENT REQUIREMENTS:

### A. DISCHARGE LIMITATIONS:

#### Treatment Category A

BOD<sub>5</sub>, TSS, and pH limitations are equal to secondary treatment standards. Fecal Coliform, Dissolved Oxygen, and Total Residual Chlorine limitations are imposed to protect the State water quality standard for those parameters. A requirement for dechlorination was added during the 2004 permit reissuance. This was not a requirement for those systems permitted prior to March 30, 2004. Therefore, Category A was divided into Category A-1, representing those systems permitted prior to March 30, 2004 and Category A-2, representing Category A systems permitted after March 30, 2004. This decision is carried forward into the proposed draft permit.

#### Treatment Category B

The TSS and pH limitations are equal to the secondary treatment standards. BOD<sub>5</sub>, Dissolved Oxygen and Ammonia Nitrogen limitations are imposed to protect the Dissolved Oxygen water quality standards. Fecal Coliform, Dissolved Oxygen, and Total Residual Chlorine limitations are imposed to protect the State water quality standard for those parameters.

#### Treatment Category C

Treatment limitations are the same as Category A-2. Category C was created to allow for a more relaxed maintenance schedule for media filter systems that utilize an ultraviolet disinfection system due to their increased stability as a treatment unit.

### **Maximum Daily and Instantaneous Maximum Limitations**

Maximum Daily and Instantaneous Maximum Limitations are based upon a ratio of 2.0 and 2.5 respectively to the Average Monthly Limitations. The DWWM feels that the use of these ratios allows for short-term operational variances, which frequently occur in the facilities of the small flow dischargers. Maximum Daily and Instantaneous Maximum limitations also provide the Division of Water and Waste Management with more enforceable limitations for its field personnel given that these limitations allow for short term or grab sampling in monitoring for permit compliance.

#### **B. MONITORING REQUIREMENTS:**

In this reissuance of the General Permit, in lieu of self-monitoring of the discharge, the permittee is required to have a plan to properly maintain the treatment system via a maintenance agreement with a WV Certified Class H or Class I thru IV wastewater operator and Quarterly Inspections. The pollutant discharge limitations will remain unchanged, and all systems are required to meet these limits. Also, the WVDEP has the right to collect samples and have them analyzed for compliance with permit limitations.

This General Permit was originally issued in 1998 to cover the need for small sewage treatment systems for homes/small businesses that had no access to Public Sewage systems and could not utilize conventional septic/drain field, due to the topography, population density, and geology of West Virginia. In this issuance the General Permit will be administered as in the 1<sup>st</sup> five permit cycles.

New installations are permitted by both WVDEP and WV Bureau of Public Health. The systems that are proposed for installations must have received NSF/ANSI 40 (or equivalent) certification. The owners of the system are required to maintain a Perpetual Maintenance Contract with a Class H or Class I thru IV certified wastewater operator.

For the first 3 permit cycles, and the last permit cycle of this General Permit, there were pollutant limitations listed in Section A, but no monitoring requirements, as Quarterly Maintenance Inspections by Class H certified wastewater operators was utilized in lieu of monitoring/testing. The 4 quarterly inspections required by the General Permit are double the NSF/ANSI 40 requirement of 2 inspections annually to ensure proper operation. Reports of these inspections are required to be sent to homeowners and WVDEP. In this reissuance, the General Permit will be administered as was done in those four permit cycles.

#### **C. TREATMENT REQUIREMENTS**

All permittees must provide adequate treatment technologies in order to comply with the established effluent limitations of their assigned treatment category. The DWWM has addressed minimum treatment unit requirements for each category as follows:

### **Treatment Category A-1**

Facilities subject to Treatment Category A-1 are required to provide secondary treatment technology such as an extended aeration "package" sewage treatment plant or equivalent secondary technology. Bacteria disinfection shall be accomplished using chlorine or an ultraviolet disinfection system.

### **Treatment Category A-2**

Facilities subject to Treatment Category A-2 are required to provide secondary treatment technology such as an extended aeration "package" sewage treatment plant or equivalent secondary technology. Bacteria disinfection shall be accomplished using chlorine or an ultraviolet disinfection system. However, if a chlorine disinfection system is utilized, a de-chlorination unit must be provided.

### **Treatment Category B**

Facilities subject to Treatment Category B are required to provide secondary treatment technology such as an extended aeration "package" sewage treatment plant or equivalent secondary technology and in addition, must provide a tertiary treatment technology such as media filters and post aeration. Bacteria disinfection shall be accomplished using chlorine or an ultraviolet disinfection system. However, if a chlorine disinfection system is utilized, a de-chlorination unit must be provided.

### **Treatment Category C**

Facilities subject to Treatment Category C are required to provide approved filter media systems, or equivalent technology, for sewage treatment. Bacteria disinfection shall be accomplished only using an ultraviolet disinfection system.

## **10. RATIONALE OF ADDITIONAL REQUIREMENTS**

B.1. This paragraph describes the permit application process for new and reissued permits, utilizing WVDEP Electronic Submission System (ESS).

B.2. This paragraph describes that permit registrations under the HAU GP will have co-permittees, homeowner and a Maintenance Provider, and that a perpetual maintenance contract with a WV Certified Class H or Class I thru IV is required.

B.3. This explains the frequency of treatment system inspection/maintenance for permit registrations.

B.4. This paragraph describes that in place of self-monitoring, permit compliance is achieved by required quarterly inspections and proper maintenance plan.

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B.5. This paragraph is to clearly state that only domestic sewage treatment is authorized.

B.6. This paragraph is to state that DWWM may require permittee(s) to attend training courses on proper maintenance and operation of their systems, and possibly require additional treatment systems to be installed to achieve compliance

B.7. Self-explanatory

B.8. This paragraph contains reference to WV Code §8-18-22 when a public sewer connection becomes available to the facility.

B.9. Describes when and how the permittee shall remove sewage sludge from the treatment system.

B.10. Describes requirement for disinfection of the treated wastewater.

B.11. This paragraph delineates the requirements for discharge to a stream for which a TMDL has been developed

B.12. Requirement to contact US Fish and Wildlife Service if discharge is to stream covered under Federal Endangered Species Act.

B.13. This paragraph delineates the requirements for TRC sampling and analysis

B.14. Describes that only chlorine tablets for wastewater disinfection can be used.

B.15. Describes requirements for design and installation of Chlorine Contact Chamber (CCC).

B.16. Describes requirements for service tags at each inspection visit.

B.17. Self-explanatory

B.18. Describes requirements for installation to have accessible lid for inspections and maintenance.

B.19. This paragraph restricts use of extended aeration systems at seasonal homes due to EPA data that shows facilities with intermittent flows do not do well with extended aeration systems due to the long start-up times.

B.20. This paragraph states that new installations are permitted by both WVDEP and WV Bureau for Public Health, and that treatment systems to be install shall receive NSF/ANSI 40 certification, and installed system must be the exact design of that used for NSF testing.

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B.21. Describes requirements for Outlet Marker

B.22. This paragraph Prohibits the use of garbage disposals with HAU systems, as they provide for too much organic loading that can restrict proper effluent treatment.

B.23. Describes requirements for installation and maintenance of UV disinfection systems.

B.24. Standard re-opener clause.

B.25. Self-explanatory

B.26. This paragraph enforces agency policy of not allowing multiple HAU's in new development, in place of a more appropriate, larger sewage treatment system.

B.27. This paragraph requires New Construction installation of HAU's to receive an approved Waste Load Allocation, meet requirements in Health Department Permit to Construct permit and to discharge to a blue-line stream to further protect public health.

B.28. This paragraph requires Nutrient Offsets for New Discharges to the Chesapeake Bay drainage area.

B.29. This paragraph requires use of an effluent media filter to discharges to roadside ditches that may contain potable water lines.

B.30. This paragraph enforces that no addition sewage connections or changes/modifications to the treatment system can be made without modification of the permit registration.

B.31. Describes WVDEP can change or add permit limitations and requirements to maintain Water Quality.

B.32. No unauthorized pollutant discharge is allowed.

B.33. Self-explanatory

B.34. Director may require a facility to obtain an Individual NPDES permit, instead of allowing coverage under this General Permit.

B.35. This paragraph requires flow equalization on new systems to ensure equal, consistent flow of sewage for optimal treatment

B.36. Standard re-opener clause if effluent standard or limitation is added/changed.

C.1. Required sludge removal from system be done by a certified septage hauler.

C.2. Self-explanatory

C3. Requirements for proper sludge removal.

C4. Records retention requirement.

## 11. ANTIDegradation CONSIDERATIONS

Of the approximate 7,000 current permittees, those with existing permitted discharges will be provided reissued coverage without going through a Tier 1 or Tier 2 antidegradation review. New or expanded facilities will be required to undergo a Tier 2 antidegradation review and to obtain an approved Waste Load Allocation showing a D.O. sag  $<0.3$  mg/l, which shows de minimus impact.

The State of West Virginia, Department of Environmental Protection, Division of Water and Waste Management, has made a tentative decision for a State NPDES Permit as listed on this Fact Sheet. In order to provide public participation on the proposed issuance of the required permit, the following information is being supplied in accordance with 47CSR10, Section 11.3.e.2 and 3, of the West Virginia Legislative Rules.

During the public comment period, any interested person may submit written comments on the draft permit in writing and addressed to:

Director, Division of Water and Waste Management, DEP  
601 57<sup>th</sup> St., S.E.  
Charleston, WV 25304  
Attention: Melissa Atkins

If information received during the public comment period appears to raise substantial new questions, the Director may reopen the public comment period and schedule a public meeting. Requests for additional information should be directed to Melissa Atkins at (304) 926-0499, extension 43857.