

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WATER AND WASTE MANAGEMENT  
601 57<sup>th</sup> STREET SE  
CHARLESTON, WV 25304**

**FACT SHEET, RATIONALE AND INFORMATION FOR  
GENERAL NPDES PERMIT FOR VEHICLE WASHING ESTABLISHMENTS  
IN WEST VIRGINIA**

**1. NAME AND ADDRESS OF APPLICANT**

Any establishment with discharges composed entirely of wastewaters associated with the operation of a vehicle washing operation agreeing to be regulated under the terms of this proposed General Permit (except as noted herein).

**2. GENERAL WV/NPDES PERMIT NO. WV0078743**

**3. COUNTY:** Any WV County      **RECEIVING STREAM:** Any WV Stream, except Trout Streams

**4. COMMENT PERIOD: FROM March 26, 2007 TO April 26, 2007.**

**5.**

**5. SIC CODES:** Primarily 7542. Various others will be applicable.

**6. DESCRIPTION OF APPLICANT'S FACILITY OR ACTIVITY:**

For some, primarily coin operated or other fee-generating vehicle washing facility. For others, the vehicle washing operation will be ancillary to primary activity at the facility.

**7. DESCRIPTION OF DISCHARGES:**

In 1989 the DWWM issued a general WV/NPDES permit for coin operated and other fee-generating car washing establishments. Since that time, many non-fee generating vehicle-washing operations (facilities with fleet vehicles such as power companies, telephone companies, delivery companies, vehicle rental companies, etc.) have been constructed, needing permit coverage. The wastewaters generated from these facilities and the treatment technology required to treat those wastewaters are the same for both operations. With the 2001 reissuance of this general permit, the DWWM decided to expand its general permit to cover all vehicle-washing establishments. The 2007 reissuance of the general WV/NPDES permit for vehicle washing establishments will continue this expanded coverage.

**A. TREATMENT REQUIREMENTS:**

Currently, the state has approximately one hundred fifteen (115) carwashes that have been covered under the general WV/NPDES Permit. Most of these carwashes utilize a treatment scheme that consists of in-bay grit traps, a multi-chamber sedimentation/separation tank and a multi-media filter bed.

**B. EFFLUENT CHARACTERISTICS:**

The general WV/NPDES Permit requires the facilities to monitor their effluent and submit Discharge Monitor Reports (DMRs) on a regular basis. A review of past DMRs submitted indicates the typically used treatment system achieves an acceptable effluent level. If installed and maintained properly, the typical treatment system should be able to effectively reduce the wastewater generated at most vehicle washing establishments. Therefore, it is proposed to require in-bay grit traps, a multi-chamber sedimentation/separation tank and a multi-media filter bed as a minimum treatment technology. This treatment technology appears to satisfy technology based requirements as well as the requirements of Title 47, Series 11.4.a. through d. of the WVLR.

**8. COVERAGE UNDER THE GENERAL PERMIT**

The general permit proposes to allow the acquisition, construction, installation, modification, operation and maintenance of a disposal system at any establishment with discharges of industrial wastes composed entirely of wastewaters associated with the washing of vehicles. However, the Agency will continue to require vehicle-washing establishments that discharge into trout waters to obtain a regular WV/NPDES permit. This is due to the need to require additional treatment and/or limitations to protect trout waters.

In 1994, Title 47, Series 58, The Groundwater Protection Regulations were promulgated that prohibits any discharge "... onto or under the land surface in such a manner that could impact groundwater". As such, any facility that discharges into karst areas will be required to provide additional treatment (see Section B.10.D. of the permit).

**9. WHEN TO APPLY**

State NPDES rules require permit applications to be filed at least 180 days prior to the commencement of the activity. Existing facilities that have completed WV/NPDES Application forms that are currently on file with the Agency need not submit a facility registration application form. The application on file will be utilized.

Those facilities with existing discharges and without an individual NPDES Permit which are operating at the time of issuance of the General Permit will be required to apply within sixty (60) days of the effective date of the permit. Proposed facilities must apply at least seventy-five (75) days prior to the planned commencement of construction.

**10. PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

All establishments covered by this permit that will discharge 1,500 gpd or more will be required to sample, analyze and submit Discharge Monitoring Reports for the designated parameters once every six (6) months. All establishments covered by this permit that will discharge less than 1,500 gpd will be required to sample, analyze and submit Discharge Monitoring Reports for the designated parameters

once every year. For the specific limitations and monitoring requirements, refer to pages 2 and 3 of the Draft Permit.

## **11. RATIONALE FOR PROPOSED LIMITATIONS, MONITORING AND TREATMENT REQUIREMENTS:**

### Section A. Discharge Limitations

#### **Flow - "Hydraulic Capacity" (MGD) Maximum - Technology Based**

BPJ. It is proposed to limit the effluent flow from the treatment system to the hydraulic capacity of the sedimentation/separation tank. This should insure that the treatment system is not hydraulically overloaded.

#### **BOD-5 - Monitor (mg/l) Maximum - Technology Based**

BPJ. It is proposed to require monitoring only for influent and effluent BOD-5 to allow calculating the percent removal of BOD-5 through the treatment system to insure the "substantial removal of five day biochemical oxygen demand" as required by 47 CSR 11-4.3.b. The collection of data will also aid in the determination of future limitations that may be implemented.

#### **Total Suspended Solids - 60 (mg/l) Maximum - Technology Based**

BPJ. The Treatability Manual indicates that technology for suspended solids removal is sedimentation, which is capable of meeting the proposed limit of 60 mg/l. Since the minimum required treatment technology includes, in part, in-bay grit traps and a sedimentation/separation tank, it is the permit writer's judgment that the level of 60mg/l can be achieved. This limit has also been proposed in accordance with generally accepted values that should insure there are no violations of 46 CSR 1-3 of the WVLR.

#### **Chlorides - 365 (mg/l) Maximum – Water Quality Based**

BPJ. An evaluation of the DMR data shows that the proposed limitation is achievable provided proper O&M procedures are followed. Therefore, it is the permit writer's judgment that the level of 365 mg/l be proposed. This limit has also been proposed in accordance with generally accepted values that should insure there are no violations of 46 CSR 1-8 of the WVLR.

#### **Oil and Grease - 15 (mg/l) Maximum - Technology Based**

BPJ. The Treatability Manual indicates that technology for removing free-floating oil and grease is gravity separation. Emulsified oil and grease requires filtration. Since the majority of potential permittees utilize some type of surfactant in the vehicle washing operation, resulting in the creation of an emulsion, the minimum required treatment technology includes, in part, a multi-media filter. With both a sedimentation/separation tank and a multimedia filter, the treatment system should be capable of meeting the proposed limit. Therefore, it is the permit writer's judgment that the level of 15 mg/l oil and

grease be proposed. This limit has also been proposed in accordance with generally accepted values that should insure there are no violations of 46 CSR 1-3 of the WVLR.

**pH** - Maintained between 6.0 - 9.0 (standard units) - Technology Based

BPJ. It is proposed to require that the pH be maintained between 6.0 and 9.0 standard units. This limit satisfies any technology based requirement and is equivalent to the water quality standard.

**Total Phosphorus-** Monitor Only (mg/l)

Monitoring for Total Phosphorus has been added to the Treatment Category. This will allow the DWWM to gather data on Phosphorus levels in the discharges and will aid in the development of any future permit limitations as may be deemed necessary.

Monitoring Requirements:

Self-monitoring and reporting requirements are separated into two categories for permittees regulated under the General Permit. The WVLR requires that each permit have monitoring requirements to assure compliance with permit limitations. It is proposed to require monitoring on a semi-annual basis for permittees discharging 1,500 gpd or more at the discharge from the multi-media filter. It is proposed to require monitoring on an annual basis for permittees discharging less than 1,500 gpd. This should be adequate in consideration of the proposed maintenance requirements of Section B.11.

Antidegradation Requirements

For purposes of definition, Best Management Practice (BMP) is defined as permit conditions used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. This may include a schedule of activities, prohibition of practices, maintenance procedure, or other management practice. BMPs may include, but are not limited to, treatment requirements, operating procedures, or practices to control site runoff, spillage, leaks, sludge or waste disposal.

The vehicle washing establishments group under this general Permit is BMP based with no specific numeric effluent limits based on a water quality standard. The majority of the facilities to be covered under this General Permit are existing dischargers and are not necessarily subject to more detailed antidegradation requirements. Any new facilities wishing to be covered for vehicle washing under this general Permit are required to comply with antidegradation requirements. In order to comply with these requirements, BMPs must be implemented and in place prior to any discharge, and these new facilities are sent to public notice. This office requires the appropriate treatment train layout be submitted with the new applications and reviewed prior to the issuance of individual registrations for vehicle washing under the permit. Also, by allowing a car wash to begin operation, the potential exists to reduce the discharge of untreated wash water that results from people washing their vehicles at their residence. The end result may be an overall reduction in pollutants being discharged.

## Section B. Other Requirements

This section encompasses the requirements specific to vehicle washing operations and those facilities subject to regulation under the general permit.

B.1. Self explanatory

B.2. Since certain situations may exist at a facility that may not be appropriate for coverage under this general permit, it may be necessary to require the permittee to obtain an individual permit. Notification of this fact appears in Condition B.2.

B.3. A reopener clause is included in this permit to provide for permit modification if EPA promulgates technology based limitations for this point source category that include more stringent standards or limitations.

B.4. 47 CSR 11-4.2. of the WVLR requires that all coin operated and other fee generating car washing establishments located in the vicinity of a POTW connect the wastewater to the sewer system if one is available and capable of handling the wastewater. This is proposed as Condition B.4.

B.5. Most existing vehicle washing operations have the solids from the sedimentation/separation tank removed by a septic tank cleaning service company. Heavy solids removed from the grit chamber have typically been disposed of on site. Condition B.5. is proposed to prohibit on site land application and to insure the proper disposal of solids and other material removed from the treatment units.

B.6. Proposed to require the permittee to post warning signs to prohibit washing vehicles that contain residue of toxic material that could cause toxic effects to the biological system proposed and/or any other water quality related problems.

B.7. Proposed to notify permittees that the conditions, limitations and/or monitoring requirements of the general permit are subject to revision if circumstances warrant.

B.8. Proposed to require that each applicant submit a Groundwater Protection Plan (GPP) for review by the DWWM in accordance with 47 CSR Series 58 of the WVLR and Section 301 of the CWA. This condition also requires GPP submittal prior to granting of coverage under the general permit.

B.9. Proposed to prevent the treatment system from being flooded during an expected ten (10) year flood event.

B.10. Proposed to give permittees suggested minimum treatment technology design specifications. The assistance most often requested by potential permittees is for treatment design guidelines. The suggested treatment technology is based on a review of the existing permitted facilities. A review of the technology utilized by these facilities and the limited DMR data submitted by them indicates

that proper operation and maintenance of a system meeting the minimum design specifications should produce an acceptable effluent. Title 47, Series 58, prohibits any discharge "... onto or under the land surface in such a manner that could impact groundwater". As such, the last sentence of Condition B.10.C. is being proposed to insure that a groundwater discharge from the multimedia filter does not occur. In addition, Condition B.10. D. is being proposed to require additional treatment be provided for groundwater protection in karst areas.

- B.11. This proposed condition delineates a recommended maintenance program since compliance with the effluent limitations contained in this permit depends upon the adherence to such a program.
- B.12. Since the potential for treatment system overload is greater during periods of engine degreasing, Condition B.12. is proposed to prevent this occurrence.
- B.13. Self explanatory
- B.14. A field review of existing facilities covered under the general WV/NPDES permit indicated that some multimedia filters were constructed within "uncontained" structures (filters that are not enclosed in concrete, metal or sealed block containers). This type of structure would allow the wastewater to be discharged into the groundwaters. Title 47, Series 58, prohibits any discharge "... onto or under the land surface in such a manner that could impact groundwater". Due the potential to contaminate groundwaters by partially treated wastewaters via "uncontained" filters, this requirement proposes to allow the permittee to upgrade the filter or perform additional monitoring. The additional monitoring will assess the potential impact on groundwaters and avoid the need to obtain a separate UIC Permit for a subsurface discharge. If necessary, additional limitations and/or requirements will be imposed.
- B.15. Self explanatory
- B.16. Condition B.15. is proposed to insure that sufficient monitoring data is obtained to aid in the development of any future permit limitations.
- B.17. Self explanatory
- B.18. Self explanatory
- B.19. Self explanatory
- B.20. Self explanatory

The State of West Virginia, Department of Environmental Protection, Division of Water and Waste Management has made a tentative decision to issue the vehicle washing general permit identified in this Fact Sheet. In order to provide public participation on the proposed issuance of the permit, the following information is being supplied in accordance with Title 47, Series 10, Section 11.3.e.3. of the WVLR.

During the public comment period, any interested persons may submit written comments on the Draft Permit and may request a public hearing. A request for a public hearing shall be made in writing and addressed to:

Director, Division of Water and Waste Management  
Department of Environmental Protection  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Attention: Ann Baldwin  
Phone: (304) 926-0499, Extension 1027  
Fax: (304) 926-0496  
E-mail: [abaldwin@wvdep.org](mailto:abaldwin@wvdep.org)

The request shall state the nature of the issues proposed to be raised in the hearing and must be received within the comment period. The Director shall hold a public hearing whenever he or she finds, on the basis of requests, a significant degree of public interest on issues relevant to the draft permit. Any person may submit oral or written statements and data concerning the draft permit. However, reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. A tape recording or written transcript of the hearing shall be made available to the public, upon request.

If information received during the public comment period appears to raise substantial new questions, the Director may reopen the public comment period.

All applicable information concerning any permit application and the tentative decisions is on file and may be inspected, by appointment, or copies obtained, at a nominal cost, at the offices of the Division of Water and Waste Management, 601 57<sup>th</sup> Street, SE, Charleston, West Virginia 25304, Monday through Friday (except State holidays) between 8:00 a.m. to 4:00 p.m.

Hearing impaired individuals having access to a Telecommunication Device for the Deaf (TDD) may contact our agency by calling (304) 926-0489. Calls must be made between 8:30 a.m. to 3:30 p.m. Monday through Friday.

Requests for additional information should be directed to Ann Baldwin at (304) 926-0499, Extension 1027.