



Washington Suburban Sanitary Commission

Regulatory Services Group Industrial Discharge Control Program

Mobile Cleaner and Power Washing Best Management Practices

INTRODUCTION

WSSC is committed to reducing and eliminating pollutants that may enter the Chesapeake Bay from its wastewater treatment plants¹. To achieve this goal, WSSC is implementing a program to address discharges to the sanitary sewer from mobile pressure washing companies.

¹Biosolids Recycling,
<http://www.wsscwater.com/file/EngAndConst/biosolids.pdf>

APPLICABILITY

WSSC has prepared guidance for mobile cleaners and power washers that discharge wash waters to the WSSC sanitary sewer system. This guide describes the requirements for the proper disposal of wastewater that is generated by mobile cleaners and the use of pressure washing equipment. It also provides methods known as Best Management Practices (BMPs), which shall be used to protect the environment and to comply with regulatory requirements. These BMPs and requirements apply to any mobile cleaners or power washers operating within the WSSC and discharging to the Commission's wastewater system. In this document mobile cleaners and pressure washers will be referred to as Mobile Power Washers (MPWs)

The [Federal Clean Water Act](#) prohibits a [point source](#) discharge of [pollutants](#) into [waters of the United States](#) without a NPDES permit. ([National Pollutant Discharge Elimination System](#)) To legally discharge wash water, a pressure wash operator must obtain a NPDES permit for each discharge location. Due to the fact that many pressure washer operators are mobile, it is not realistic to pre-determine discharge locations and obtain permits for each location. Additionally, most NPDES permitted [process water](#) discharges require treatment and analysis of the discharge, which may not be practical for many pressure washers².

²EPA Region 6 Pressure Wash/Power Wash Discharges,
<http://www.epa.gov/region6/6en/w/pw.htm>

WHAT IS PRESSURE WASHING?

MPWs may use mechanical equipment to create a high pressure water stream that is typically ejected from a hand-held wand or nozzle. This jet of water is used for cleaning a wide variety of surfaces and objects. Depending on the application, pressure washing may be conducted with or without heated water or cleaners. The following industry categories may be serviced by MPWs:

Transportation - automobiles, trucks, construction vehicles, boats, trains, or aircraft

Surface Cleaning -sidewalks & plazas, driveways, parking garages, building exteriors, graffiti removal, and cleaning of masonry efflorescence

Food Related - cooking equipment such as vent filters, grills, hoods, floor mats around cooking equipment, grease traps outside of buildings, clean paved areas, and trash dumpsters

Miscellaneous – residential homes, decks, mobile pet care, and carpet & upholstery cleaning

STORM DRAINS AND SANITARY SEWER DRAINS ARE NOT THE SAME

The Sanitary Sewer System conveys wastewater from indoor facilities and operations, like sinks, toilets, washing machines, and carwash facilities, to a sewage treatment plant where the wastewater is treated and disinfected to ensure public safety before being released to the environment.

The Storm Drain System conveys excessive storm water and irrigation water from our neighborhoods and streets to nearby creeks, rivers and other drainage areas to prevent flooding. As a result, it is important to keep pollutants, including all types of wastewater, from discharging into the storm drain system and from accumulating on surfaces that are exposed to rainfall.

Virtually all outdoor drains in streets, parking lots, and elsewhere are storm drains which may not be used for wastewater disposal.

REQUIREMENTS FOR DISCHARGE TO THE SANITARY SEWER

Compliance with environmental regulations requires proper disposal of surface cleaning wastewater. Compliance is achieved based on the nature of the pollutants in the wastewater. It is the responsibility of the generator to determine the proper collection and disposal method for this wastewater. To avoid unanticipated costs, delays, and violations, this determination should always be made prior to starting any job. All disposal methods are subject to requirements, restrictions, and the prohibitions outlined below. Discharges may only be made to the sanitary sewer system at the customer's site, and with the customer's permission, or at the service provider's facility, through a private connection such as an onsite sink, toilet, or lateral cleanout, at a flow rate that

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will not cause an overflow or backup of the system. No discharges may be made to a manhole or other sanitary sewer access point within the public right-of-way.

BMP Wash Water Disposal: Once wash water has been collected, either:

- (1) Discharge it to the sanitary sewer
- (2) Collect it in a container for disposal at an appropriate off-site location; have the waste hauled by a licensed waste hauler or discharge to the sanitary sewer at the pressure washer's place of business.

When cleaning surfaces such as buildings and decks without loose paint, sidewalks, or plazas without soap, a thorough dry cleanup should normally be sufficient to allow the wash water to be discharged to the sanitary sewer without pretreatment. **Discharges to the sanitary sewer must occur at a flow rate that will not cause an overflow or backup of the system.** No discharges may be made to a manhole or other sanitary sewer access point within the public right-of-way. However, if any debris is present in the wash water it should first pass through a "20 mesh" or finer screen to remove the material before discharging it to the sanitary sewer. The material that is removed should be disposed of as solid waste.

Be sure to read cleaning product labels before disposing of wash water. Follow use and disposal instructions carefully. Depending on the condition of the surface being cleaned, the wastewater generated could be classified as hazardous waste. Some examples include:

- (1) Wastewater generated from parking lots, storage areas, and gas stations may contain oil, gas, solvents, antifreeze, metals, and/or pesticides.
- (2) Washing building exteriors with paint made prior to 1978 may contain lead.
(test paint for lead content from 3 different areas to be cleaned)

PROHIBITED DISCHARGES (WSSC Plumbing and Fuel Gas Code Section 804)

804.1 Prohibited Discharge to Sanitary Sewer. No person shall discharge the following, or cause the following to be discharged, directly or indirectly, into the Commission's sanitary sewer:

804.1.1 Temperature. Any liquids or vapors having a temperature greater than 140 degrees Fahrenheit (60°C). In no case shall discharged waste raise the temperature at the treatment works influent greater than 104 degrees Fahrenheit (40°C).

804.1.2 Fire or Explosion Hazard. Any liquids, solids or gases that by reason of their nature or quantity are, or may be, either alone or by interaction with other substances sufficient to cause a fire or explosion hazard in the POTW or its processes, including, but not limited to, waste streams with a closed cup flash point of less than 140-degrees Fahrenheit (60°C) using the test methods specified in 40 CFR 261.21. At no time shall an Industrial User discharge any substance which results in a reading of greater than 5-percent of the Lower Explosive Limit (LEL) for that substance using a methane calibrated combustible meter, at the point of discharge to a fixture or at any point in the system. Prohibited materials include but shall not be limited to; gasoline, kerosene, naphtha, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides and any other substances determined to be a fire and/or explosion hazard.

804.1.3 Public Nuisance or Hazard. Any malodorous or toxic gases, vapors, fumes, or other substances that, either singly or by interaction with other wastes, shall be capable of creating a public nuisance, a hazard to human health or the environment, or the prevention of entry by Commission personnel into sewers for maintenance and repair.

804.1.4 Interference and Pass-Through. Any liquids, solids, or gases not amenable to treatment or reduction by the sewage treatment processes employed, or amenable to treatment only to such a degree that the wastewater treatment plant violates its NPDES permit; or any substance which may interfere with or pass-through the POTW into the receiving waters untreated or without adequate treatment.

804.1.5 Excess Coloration. Any liquids, solids, or gases that, singly or by interaction with other material, cause excessive coloration which may pass through the POTW to the receiving waters or any substance with excessive color such that the color is not removed in the wastewater treatment plant, including but not limited to, dye wastes.

804.1.6 Obstruction to Flow. Any lint, ashes, cinders, sand, mud, straw, shavings, metals, glass, bones, wood, plastics, stone dusts, rags, paunch manure, butcher's offal, or any solids, liquids or other substances capable of causing obstruction to the flow in sewers or other interference with the proper operation of the wastewater system.

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804.1.7 Concentrated Releases. Any slug load, release rate of pollutants, concentration of pollutants, including oxygen demanding pollutants either singly or by interaction with other pollutants or waste streams, which shall cause interference with any wastewater treatment process, constitute a hazard to humans or animals, contaminate sludge, pass-through the POTW to receiving waters, or could result in a violation of the POTW's NPDES permit.

804.1.8 Excess Daily Flow. An average daily flow greater than 2-percent of the average daily sewage flow at the wastewater treatment plant receiving the industrial waste unless otherwise permitted in writing.

804.1.9 Discharge Limitations. Any water or wastewater containing substances in excess of the limitations contained in Table 804.1.9. These limits shall be subject to revision and may be modified to represent concentration or mass based standards.

804.1.10 Radioactive Wastes. Any radioactive wastes or isotopes of such half-life or concentration as to exceed limits established by applicable local, State, or Federal regulations. Reports of discharges to the Commission's system shall reflect actual discharge concentrations rather than any time or dilution adjustments.

804.1.11 Pathogenic Wastes. Any, substance containing viable pathogenic or parasitic organisms that could pose a health hazard to the public or interfere with the proper operation of the wastewater collection or treatment systems

804.1.12 Storm or Ground Water. Any storm water, surface water, ground water, roof runoff, subsurface drainage.

804.1.13 Viscous Substances. Any substances that could solidify or become viscous at temperatures between 40-degrees Fahrenheit (4°C) and 140-degrees Fahrenheit (60°C); or at any other temperature that could cause obstruction and/or interference with the conveyance system or the POTW processes.

804.1.14 Dilution Prohibition. Any water added to a discharge as a partial or complete substitute for proper treatment to achieve compliance with applicable discharge limitations for any wastewater constituent.

804.1.15 Hauled Pollutants. Any trucked or hauled pollutants, except at discharge points designated by the Commission in conformance with the provisions cited in Section 814.

804.1.16 Oils. Any wastes containing petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that could cause interference or pass-through.

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804.1.17 Glycol. Any glycol compound or derivative added to or contained in internal combustion engine cooling systems or liquid conveyance systems for the purposes of altering liquid freezing and/or boiling points.

804.1.18 Pretreatment Residue. Sludges, screenings or other residues from pretreatment systems or industrial processes.

804.1.19 Corrosive Substances. Substances causing corrosive damage, harm or endangerment to the collection system, pumps, personnel.

804.1.20 Mercury. Except as otherwise provided in this section, any substance containing mercury in amounts greater than 1 ug/l. Dental practices may follow Commission approved Best Management Practices (BMPs) for dental waste dischargers, in lieu of the numerical discharge limitation for substances containing mercury.

804.1.21 Perchloroethylene. Any discharge of perchloroethylene or perchloroethylene-containing products from a water separator (used for the purpose of recovering perchloroethylene) or from any dry cleaning process.

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Table 804.1.9

Discharge Limitations^{1,2}	
Pollutant	Limit³
<i>Inorganics (Total)</i>	
Cadmium	0.17
Chromium	7.0
Copper	2.0
Cyanide	1.0
Lead	0.4
Nickel	3.4
Silver	1.2
Zinc	4.2
<i>Organics (Total)</i>	
Total Toxic Organics ⁴	2.13
<i>Conventionals</i>	
	<i>Concentration (mg/l) (except as indicated)</i>
Dissolved Solids	1,500
Suspended Solids	400
Total Solids	1,900
BOD (5-day, 20°C)	300
COD	500
Fats, Oil and Grease ⁵	100
pH ⁶	6.0 - 10.0 units
Temperature	140°F

- Limits expressed in this table represent absolute maximum limitations and shall not be exceeded at any time. This list shall not be construed as a complete list of restricted materials. Restrictions may also be placed on other materials when the concentration of these materials is sufficient to adversely affect any portion of the collection or treatment system.
- To determine compliance with numerical permit limitations, unless otherwise specified in the permit, the analytical methods shall include: a) any approved method with a Method Detection Level (MDL) adequate to detect concentrations of at least one-tenth the level of the permit limitation, or b) if there is no approved method sensitive to at least one-tenth of the permit limitation, then the most sensitive method approved in 40 CFR Part 136 or other method approved by EPA for wastewater is required.
- Maximum for any sample obtained during a calendar day.
- Total Toxic Organics shall consist of the summation of toxic organics with values greater than ten (10) micrograms per liter. Toxic organics shall consist of the Commission designated list of organic compounds.
- Fats, wax, grease, or oils of animal or vegetable origin, whether emulsified or not. Any discharge capable of causing an obstruction and/or interference with the plumbing system, conveyance system, or the POTW processes shall be prohibited regardless of limit.
- In the event an Industrial User monitors their pH continuously, a pH violation shall be construed as any excursion less than 6 or greater than 10 for more than 15 minutes at any one time, or more than 30 minutes in aggregate, for any calendar day. The pH shall not be less than 5 for any period of time.

Table of Best Management Practices

Disposal method	Wastewater Characteristics	Requirements
<p>Discharge to the sanitary sewer</p> <p>• Via sanitary sewer</p>	<p>The wastewater:</p> <ul style="list-style-type: none"> • is from transportation related cleaning (washing of fleet vehicle exteriors, mobile auto detailing, rinsing of automobiles, recreational vehicles, boats, etc at retail sales dealerships) • is from surface related cleaning (cleaning of sidewalks, plazas, driveways, parking garages, service stations, and building exteriors/walls) • is from food service related cleaning (cleaning of restaurant alleys, grocery dumpster areas, food facility floor mats, exhaust or grease filters, lunch wagons {not engines}, and food carts) • cannot be hazardous or flammable and cannot contain heavy metals, solids or significant amounts of oil/grease • pH must be between 6.0– 10.0 • may not cause damage to pipes, workers or the waste water treatment plant • must meet all WSSC discharge conditions (See Section 804 of the WSSC Plumbing and Fuel Gas Code) 	<p>FOR MOBILE PRESSURE WASHING CONTRACTORS:</p> <ul style="list-style-type: none"> ◆ Discharge of eligible pressure washing wastewater to the sanitary may be performed at the job site with the property owner's permission or at the pressure washer's place of business ◆ Discharge of eligible pressure washing wastewater may require pre-treatment prior to WSSC approval depending on the nature of the wastewater such as when solids are present or there is excessive foaming. Call 301-206-8553 for guidance or email your questions to industrialdischargecontrol@wsscwater.com ◆ Discharge of pressure washing wastewater from other than food/transportation/surface cleaning activities, including engine/equipment degreasing or acid based cleaning, <i>requires</i> specific authorization and pre-approval <i>prior to each and every discharge</i>. Approvals may be granted on a case-by-case basis and pre-treatment standards may apply (such as treatment through an oil-water separator for oily wastes prior to discharge) ◆ Transportation of wastewater on public roads for off-site disposal may require further permitting by other agencies
<p>Disposal of hazardous waste</p>	<p>Wastewater is classified as a State or Federal hazardous waste because it is:</p> <ul style="list-style-type: none"> • ignitable (easily combustible or flammable) • reactive (undergoes violent or rapid chemical reactions) • corrosive (burns skin and eyes on contact; dissolves metals; pH ≤ 2 or pH ≥ 12.5) • toxic (kills fish; contains harmful levels of heavy metals or hazardous substances) 	<ul style="list-style-type: none"> ◆ Must transport by a licensed hazardous waste hauler ◆ Hazardous waste generators must arrange for shipment of their hazardous waste to a facility permitted to accept it or, with the appropriate permits, treat it themselves. A person who ships hazardous waste off-site must use a hauler certified by MDE and the waste must be accompanied by a document that tracks it from generation to disposal (the hazardous waste manifest). ◆ For information on regulatory requirements associated with hazardous waste, call the Maryland Department of Environment, Technical Services and Operations Program at (410) 537-3356.

NON-REGULATORY RESOURCES

Power Washers of North America (PWNA)

Professional Trade Association

(800) 393-7962

<http://www.thepwna.org/>

Cleaning Equipment Trade Association (CETA)

Professional Trade Association

(800) 441-0111

<http://www.ceta.org/>

Chesapeake Bay Program for Businesses

Regional Chesapeake Bay Program Partnership

(800) 968-7229

http://archive.chesapeakebay.net/index_businesses.cfm

REFERENCES

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http://www.saws.org/conservation/ordinance/powerwash/Power_Washing_Guide.pdf
2. Preventing Stormwater Pollution: Your Guide to Best Management Practices (BMPs) For Pressure Washing and Cleaning in the Greater Sacramento Area.
http://www.sactostormwater.org/SSQP/documents/PressureWashing_BMPs_Dec08.pdf
3. EPA Region 6 Pressure Wash/Power Wash Discharges,
<http://www.epa.gov/region6/6en/w/pw.htm>
4. BMPs for Pressure Washing and Surface Cleaning, Public Works-Storm water Division, City of Lawrence Ks, November, 2004,
http://www.lawrenceks.org/public_works/files/pressure%20wash%20manual_merged.pdf
5. Storm water pollution prevention information for commercial washers,
http://www.co.monterey.ca.us/msea/Literature/Commercial%20Washers/Pressure%20washer%20booklet%2008_08.pdf