General VPDES Permit for Discharges of Stormwater Associated With Industrial Activity (VAR05) & Chesapeake Bay TMDL Requirements

Virginia Department of Environmental Quality
Presentation to Virginia Asphalt Association
January 5, 2017
Allan Brockenbrough, PE
Manager-Office of VPDES Permits
Regional Offices are the primary contact for permits
Stormwater runoff is generated when precipitation flows over land or impervious surfaces and it accumulates debris, chemicals, sediment or other pollutants that could adversely affect water quality.

The primary method to control stormwater discharges is the use of best management practices (BMPs).

In addition, most stormwater discharges are considered point sources and require coverage under a permit issued by the DEQ.

The Virginia Pollutant Discharge Elimination System (VPDES) regulates stormwater discharges for:

* MS4s
* Construction
* Industrial
Industrial Stormwater General Permit (ISWGP)

- For stormwater discharges only
- General Permit coverage via registration
- Limited non-storm water discharges are authorized (Part I.B.1)
- As a general rule, if it’s not rain or snow melt it shouldn’t be going out your outfall or discharge location
- 29 industrial ‘sectors’ based on SIC code
- Sector D is Asphalt Paving and Roofing Materials and Lubricant Manufacturers
ISWGP
BASIC REQUIREMENTS

- Monitoring
- Stormwater Pollution Prevention Plan
- Comprehensive Site Evaluation (annually)
- Routine Facility Inspections (quarterly)

Corrective Actions
- Benchmarks exceeded
- Routine inspections reveal deficiencies
- Comprehensive Site Evaluations reveal deficiencies
Types of storm water monitoring

- Quarterly visuals
- Benchmark
- Effluent Limitation
- Total Maximum Daily Load (TMDL) for Impaired Waters
Quarterly Visuals
(Part I.A.1.a)

- Conducted once per calendar quarter

- During normal working hours

- Report includes the outfall location, the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the stormwater discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution), and probable sources of any observed stormwater contamination

- Document examination in accordance with your permit and maintain on site with your Storm Water Pollution Prevention Plan (SWP3)

- Does not have to be submitted to DEQ
Benchmark Monitoring  
(Part I.A.1.b)

- Conducted on a semi-annual basis
  - January 1 – June 30
  - July 1 – December 31

- During “normal working hours” not applicable

- Values that exceed a benchmark concentration are not permit violations
  - Requires a review of SWP3 and best management practices
  - Document, maintain with SWP3, and sign in accordance with Part II.K

- Results of monitoring submitted to DEQ on the Discharge Monitoring Report (DMR) form

- Waivers are available to facilities consistently below benchmarks, no compliance issues

- Sector D benchmark for total suspended solids – 100 mg/L
Conducted on a semi-annual basis
- January 1 – June 30
- July 1 – December 31

During “normal working hours” not applicable

Values that exceed an effluent limitation are permit violations

Results of monitoring submitted to DEQ on the Discharge Monitoring Report (DMR) form

Waivers and substantially identical outfall monitoring provisions are not available for effluent limitations
Sector D effluent limitations include:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Effluent Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharges from areas where production of asphalt paving and roofing emulsions occurs (SIC 2951, 2952)</td>
<td>Daily Maximum</td>
</tr>
<tr>
<td>Total Suspended Solids (TSS)</td>
<td>23 mg/L</td>
</tr>
<tr>
<td>Oil and Grease</td>
<td>15 mg/L</td>
</tr>
<tr>
<td>pH</td>
<td>6.0 - 9.0 s.u.</td>
</tr>
</tbody>
</table>
TMDL Requirements

What is a TMDL?
Total Maximum Daily Load

- A TMDL is the total amount of a certain pollutant that a water body can receive without exceeding water quality standards

- TMDL studies are required by law:
  - 1972 Clean Water Act
  - 1997 Water Quality Monitoring Information and Restoration Act

- A TMDL must be developed if a waterbody is listed as impaired for any of its designated uses
Reducing existing pollutant load to the TMDL end point load is expected to restore water quality.
All SWGP holders within the Chesapeake Bay watershed are required to test for Total Nitrogen (TN), Total Phosphorus (TP), and Total Suspended Solids (TSS)

Conducted on a semi-annual basis for the first four monitoring periods of permit coverage
- January 1 – June 30
- July 1 – December 31

During “normal working hours” not applicable

Results of monitoring submitted to DEQ on the DMR
Chesapeake Bay TMDL
(Part I.B.7)

- After four monitoring periods you must calculate your facility’s loadings (that is what your facility is contributing)

- Loadings must be individually calculated for TN, TP, and TSS

- DEQ had developed a calculation tool available at: http://www.deq.virginia.gov/Programs/Water/PermittingCompliance/PollutionDischargeElimination/PermitsFees.aspx#isw

- Compare your facility’s loadings to those provided in the permit (Part I.B.7.b.3)

- If your facility’s loadings are greater than those noted in the permit, you must develop a Chesapeake Bay TMDL Action Plan
If required, the Chesapeake Bay TMDL Action Plan shall be submitted within 90 days from the end of the second year’s monitoring period (4 semi-annual monitoring cycles) and shall include:

- A determination of the total pollutant load reductions for TP, TN, and TSS (as appropriate) necessary to reduce the annual loads from industrial activities. This shall be determined by calculating the difference between the loading values listed in subdivision 7 b (3) (a) of this subsection, and the average of the sampling data for TP, TN, or TSS (as appropriate) for the entire facility. The reduction applies to the total difference calculated for each pollutant of concern.
- The means and methods, such as management practices and retrofit programs, that will be utilized to meet the required reductions determined in subdivision 7 b (3) (c) (i) of this subsection, and a schedule to achieve those reductions by June 30, 2024. The schedule should include annual benchmarks to demonstrate the ongoing progress in meeting those reductions; and
- The permittee may consider utilization of any pollutant trading or offset program in accordance with §§ 62.1-44.19:20 through 62.1-44.19:23 of the Code of Virginia, governing trading and offsetting, to meet the required reductions.
The permittee shall implement the Chesapeake Bay TMDL Action Plan over the remaining term of this permit to achieve the necessary reductions by June 30, 2024.

Permittees who are required to submit an Action Plan shall submit an annual report to DEQ by June 30th each year describing the progress made in meeting required reductions.
Contact:

- Matt Richardson
  Office of VPDES Permits
  matthew.richardson@deq.virginia.gov
  804-698-4195
Questions?