Sector AD.c – Hydrodemolition Operations.

AD.c.1 Covered Stormwater Discharges.

The requirements are for the Hydrodemolition Operations in Sector AD.c apply to stormwater and process water discharges associated with operation of hydrodemolition equipment as identified under Sector AD.c in Appendix A of the permit. This permit authorizes stormwater discharges for the hydrodemolition operation and the onsite treatment and discharge of wastewater generated from the hydrodemolition of Portland Cement Concrete (PCC) bridge decks to groundwater via land application/inflitration.

AD.c.2 Limitation on Coverage - Prohibited Discharges (see also Parts I.C).

- This permit does not authorize the discharge of hydrodemolition wastewater to surface waters, or process wastewater resulting from hydrodemolition of concrete surfaces that contain paint or other coatings, or that is mixed with any other wastewater that is not hydrodemolition wastewater or stormwater.
- The following hazardous wastes are prohibited from being discharged onsite to the ground surface or to surface waters: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2 – trichloroethane, chlorobenzene, ortho-dichlorobenzene, carbon tetrachloride, chlorinated fluorocarbons, toluene, methylethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropane.

AD.c.3 Additional Technology-Based Effluent Limits.

During the bridge restoration, you are responsible for:

- the containment, collection, sampling, treatment and discharge by land application of the hydrodemolition wastewater; or
- if land application is not possible, then you are responsible for contracting for appropriate offsite treatment and disposal of the hydrodemolition wastewater.

AD.c.3.1 *Wastewater Containment, Collection, Sampling, Recordkeeping, Treatment, and Land Application Disposal System Requirements.* You must design and implement measures for the containment, collection, sampling, treatment and discharge via land application/infiltration of treated hydrodemolition wastewater. This design should include at a minimum the following:

AD.c.3.1.1 *Wastewater Containment and Collection System.* This system shall be able to adequately contain, collect and convey all hydrodemolition wastewater to the treatment and land application/infiltration disposal system. These requirements must be met:

- total containment of the hydro-demolition wastewater is required;
- hydrodemolition Wastewater shall not be allowed to enter storm sewers, bridge drainage downspouts or bridge approach downspouts, ditches, surface waters, floodplains or wetlands; and
- bridge deck joints, drains and other potential outlets to shall be sealed in order to prevent the release of hydrodemolition wastewater to the ground surface or surface waters.

AD.c.3.1.2 *Hydrodemolition Wastewater Treatment System.* The hydrodemolition wastewater must be treated before it is land applied and meet the following requirements. As specified below, all discharges from hydrodemolition operations to ground waters shall be monitored by the permittee at each point of discharge.

Table AD.C-1 Numeric Limits for Wastewater from Hydrodemolition Operations

Parameter	Limits				Monitoring Frequency	Sample Type	**Parameter Specific Requirements**
	Daily Minimum	Monthly Average	Daily Maximum	UNITS			
Flow		REPORT	REPORT	gpd	1/month	measured	
pH	2.0		12.5	s.u.		grab	*The pH shall be maintained as close to 7.0 as possible.*

All residual solids that result through settling, filtering or other water treatment must be removed from the site. The wastewater to be land applied shall display no visual presence of solids. The permittee shall observe any discharge water on each day the facility is in operation to verify compliance with this requirement.

AD.c.3.1.3 *Land Application Disposal System Requirements.* Land application of hydro-demolition wastewater shall be done only on land contained within publically owned right-of-ways and land that is specifically approved and designated in writing for this use by the public right-of-way approving authority or alternatively on private land with the express approval of the land owner. Documentation of approval of use of a publically owned right-of-way or private land for land application must be submitted with the SWPPP. All land application activities shall be performed in accordance with the following:

- all drains or stormwater catch basins shall be identified, flagged or blocked off prior to land applying hydrodemolition wastewater;
- there shall be no discharge of hydrodemolition wastewater to surface waters including intermittent streams and tax and other drainage ditches;
- land application of hydro-demolition wastewater shall not cause ponding or runoff;
- land application of the treated wastewater is prohibited during inclement weather such as during periods of precipitation, high winds, freezing conditions, on snow-covered ground or when soils are saturated; and
- setbacks.
  i. Surface Waters. Hydrodemolition wastewater shall not be land applied closer than 100 feet to surface water bodies unless a 35 foot vegetated buffer is established from the proposed wetted edge of the land application area. Surface waters include streams, lakes, ponds, drainage and tax ditches and any other conduit, natural or manmade to such waters.
  ii. Ground Waters. Hydrodemolition wastewater shall not be land applied within 100 feet of drinking water wells or sinkholes, or within 300 feet of springs.

AD.c.3.1.4 *Recordkeeping.* The permittee shall maintain a logbook with daily records of hydro-demolition activities. These records shall be onsite and available for review upon request by Department personnel. These records shall be retained by the permittee for one year following the last day of land application of hydrodemolition wastewater. The logbook shall record each day, at minimum, the following information:

- date;
- amount of hydro-demolition wastewater applied;
- weather:
- land application field conditions;
- pH testing results; and
- amount and type of treatment chemicals added.

AD.c.3.1.5 *Department Notification.* The Department's Compliance Program (Part II.D.3) must be notified within 48 hours of the planned start of the hydrodemolition wastewater discharge via land application.

AD.c.3.1.6 *Offsite Transport.* Hydrodemolition wastewater that does not fall within a pH range of greater than pH 2.0 and less than pH 12.5 must be transported offsite by a licensed hazardous waste hauler to a licensed hazardous waste facility treatment and disposal facility.

AD.c.4 Additional SWPPP Requirements.

The plan for the implementation of the containment, collection, treatment, and discharge of the hydrodemolition wastewater must be reviewed and approved by a Professional Engineer registered in the State of Maryland. Describe operation in the narrative and identify location of any treatment devices on site map, including bag filters or other devices used to adjust pH. These plans shall include at a minimum:

AD.c.4.1 Detailed plans of the processes that will generate, collect, and treat the hydrodemolition wastewater. These plans shall include at a minimum:

- clearly identify each major process unit in sufficient detail to allow the Department to have a clear understanding of the types and quantities of pollutants that may be generated;
- identify the average and maximum daily flow rates (in gallons per day) for each major process unit that generates hydrodemolition wastewater;
- detail how the hydro-demolition wastewater will be monitored, treated and adjusted to meet pH and suspended sediment treatment requirements; and
- a map showing the area where the hydrodeomolition will occur, including calculations on square feet of area that will be processed.

AD.c.4.2 *Land Application Plan.* A Land Application Plan that details how the treated hydrodemolition wastewater will be land applied. This Plan shall include at a minimum:

- equipment to be used for the land application disposal system;
- the expected amount of wastewater to be land applied;
- a map identifying the public land to be utilized for land application;
- authorization letter to use the identified public land from the appropriate authorities; and
- location of all storm sewers, surface waters, and stormwater basins in the land application area.

AD.c.4.3 *Spill contingency plan.* Include a spill contingency plan for hydro-demolition wastewater.

AD.c.4.4 *Alternatives Plan.* A plan for managing the hydrodemolition wastewater if the hydrodemolition wastewater cannot meet the discharge treatment standards for pH and solids or if site conditions make land application not possible. This plan shall include the names of licensed hazardous waste hauling and treatment/disposal services that can accommodate the potential quantity and quality of generated hydrodemolition wastewater.

AD.c.4.5 *pH Control plan.* The pH Control Plan shall include at a minimum:

- details of the method(s) to be used to monitor, sample, and test (including frequency of testing) the pH of the hydro-demolition wastewater;
- details of the method(s) to be used to treat the hydrodemolition wastewater so that the pH is maintained greater than pH 2.0 and less than pH 12.5 prior to discharge via land application;
- description of the actions to be taken in order to ensure that the discharged hydrodemolition wastewater meets the pH and solids requirements, including but not limited to work stoppage.