MDOT HYDRODEMOLITION PROJECTS
pH CONTROL PLAN CHECKLIST

Control Section/Job Number: _____ Date: _____
Project Description: _____
Delivery Engineer: _____
Location: _____
Prime Contractor: _____
Hydrodemolition Contractor: _____
Site Identification Number for Generator: _____
Liquid Industrial Waste Hauler: _____
Site Identification Number for Transporter: _____

Items/Activities	**Yes**	**No**
pH Control Plan – Submitted	☐	☐
Personnel		
pH control plan manager listed	☐	☐
Personnel identified who will be in charge of sampling	☐	☐
Personnel identified who will be in charge of testing	☐	☐
Personnel identified who will be in charge of neutralizing	☐	☐
Personnel identified who will be in charge of pH meter calibration	☐	☐
Sampling and Testing		
Is the method of field sampling identified?	☐	☐
Is the name and model number of the pH meter listed?	☐	☐
Is a written calibration method for pH meter submitted?	☐	☐
Is there a sampling strategy included based on volume of runoff,	☐	☐
site conditions, pH levels, consistency of pH?	☐	☐
Is a MDEQ-certified laboratory listed to test split samples?	☐	☐
Is a MDEQ-certified laboratory contact person and phone number listed?	☐	☐
Is there a procedure listed for steps to be taken if field and lab results aren't compatible?	☐	☐
Are test results being recorded on the hydrodemolition log?	☐	☐
Monitoring		
Is there a procedure listed on how to meet the pH requirements?	☐	☐
Are the treatment products listed?	☐	☐
pH Adjustment		
Is there a procedure listed on how to meet the pH requirements?	☐	☐
Has the location of the neutralization been identified by the contractor?	☐	☐
Has the MSDS for the neutralizer been submitted?	☐	☐
Has a copy of the product data sheet for the neutralizer been submitted?	☐	☐

Items/Activities

Generation

- Does the hydrodemolition contractor have a site identification number? ☐ ☐
- If not, does MDOT have a site ID for the project? ☐ ☐
- Is the proposed transporter a liquid industrial waste hauler? ☐ ☐
- Is the proposed transporter a hazardous waste hauler if necessary? ☐ ☐
- Has the hydrodemolition contractor provided a copy of a MDEQ certificate of coverage? ☐ ☐

Neutralization

- If the pH is higher than 12.5, will the contractor neutralize the slurry? ☐ ☐
- Is the location of where the neutralization site is to occur identified in the control plan? ☐ ☐
- Is the neutralization method listed in the plan? ☐ ☐
- Will the slurry be pretreated (supply water)? ☐ ☐
- Will the slurry be treated during generation? ☐ ☐
- Will the slurry be post treated after generation? ☐ ☐
- If the contractor elects to neutralize after generation, is the container tank- or transport-vehicle identified? ☐ ☐

Collecting and Hauling Slurry

- Will the runoff be collected and hauled? ☐ ☐
- Will the contractor be hauling the slurry? ☐ ☐
- If the contractor is hauling the slurry, does the contractor have a site identification number either as the transporter or generator? ☐ ☐
- Is the transporter a licensed liquid industrial waste hauler? ☐ ☐
- If the slurry is hazardous and not neutralized, is a hazardous waste hauler identified to haul the slurry? ☐ ☐

Discharging Runoff Water

- Are there 3 peastone filter dams constructed prior to hydrodemolition? ☐ ☐
- Are the millings removed from the deck prior to hydrodemolition? ☐ ☐
- Are the peastone filters being maintained during hydrodemolition? ☐ ☐
- Is the discharge site within an MDOT right of way? ☐ ☐
- Has the engineer approved the discharge location? ☐ ☐
- Is the contractor recording the volume of runoff generated? ☐ ☐
- Is the contractor recording the pH of the runoff? ☐ ☐

Disposal of Runoff Water

- Is the runoff being collected and hauled? ☐ ☐
- Is the disposal facility a solid waste facility? ☐ ☐
- Is the disposal facility a licensed liquid waste disposal facility? ☐ ☐
- Is the disposal facility a wastewater treatment facility? ☐ ☐

SAMPLE HYDRODEMOLITION pH CONTROL PLAN

a. Description ***(Insert company name)*** staff shall sample, test, monitor, manage, and neutralize, if necessary, the hydrodemolition runoff water prior to discharge from the bridge deck. In areas with enclosed storm drainage systems or in areas where discharging is otherwise not permitted, ***(Insert company name)*** will collect, haul, and dispose of the hydrodemolition runoff water.

b. Construction - ***(Insert company name)*** will perform this work as specified in the Standard Specifications for Construction and the contract documents. Discharged hydrodemolition runoff water will be filtered with a minimum of three peastone filter dams. The peastone dams will be maintained during the entire hydrodemolition and rinsing operations. Dams will not be constructed from millings of the scarified concrete or removed latex concrete. Remove millings prior to beginning the hydrodemolition process.

(Insert company name) will obtain an MDEQ Certificate of Coverage form and conform to the Groundwater Discharge General Permit.

c. pH Control Plan - ***(Insert company name)*** staff shall sample, test, monitor, manage, and, if necessary, neutralize the hydrodemolition runoff water prior to discharge and/or disposal. The plan manager will be ***(Insert name of plan manager)***.

1. Sampling and Testing - The hydrodemolition runoff water produced by the hydrodemolition equipment will be sampled and tested immediately to determine whether it falls within the nonhazardous range (greater than 2 and less than 12.5) by ***(Insert tester's name or names***). A daily calibrated ***(Insert pH meter model and name)*** will be utilized and calibrated by ***(Insert tester's name or names)***.

On this hydrodemolition project, a minimum of four independent hydrodemolition runoff water samples will be taken per day for each structure and recorded. Additional sampling may be taken depending on the volume of runoff generated, consistency of pH, and area of the bridge deck. Sampling will be spaced evenly throughout the work day although the frequency may be adjusted depending on change in the hours of operation. The samples will be tested and split into laboratory samples. Four hydrodemolition runoff samples will be tested by an MDEQ certified laboratory. The MDEQ certified laboratory will be ***(Insert name of testing laboratory)*** and the laboratory contact person is ***(Insert contact name)*** and can be reached at ***(Insert testing laboratory phone number)***. The laboratory will check and verify the pH and provide daily a written report to be forwarded to the resident/delivery engineer. If the laboratory tests are not consistent with the field results, ***(Insert company name)*** will ***(Insert proposed action, options include recalibrating pH meter, changing meters, stoppage of work, neutralizing, etc)***
Test results will be recorded on the hydrodemolition log.

2. Monitoring - ***(Insert company name)*** will take action to ensure the pH is above 2 and below 12.5 prior to discharge and disposal by ***(List proposed actions such as pre treatment, treatment during hydrodemolition, or post treatment options)***

(Insert company name) will treat the runoff water with ***(Insert product name or names)*** in order to keep the runoff water below a pH of 12.5. The ***(Insert product name or names)*** will be mixed ***(Insert location of mixing)*** prior to discharge and disposal.

3. pH Adjustment - ***(Insert company name)*** will treat the runoff water with ***(Insert product name or names)*** in order to keep the pH of the hydrodemolition runoff water above 2 and below a pH of 12.5. The ***(Insert product name or names)*** will be mixed ***(Insert location of mixing such as tank, gondola, and tanker truck)*** prior to discharge and disposal. A copy of the material safety and data sheet (MSDS) and a product data sheet will be furnished to the engineer prior to neutralizing.

4. Managing - ***(Insert company name)*** will manage the hydrodemolition waste runoff to prevent release of a hazardous waste and will adjust the pH when necessary as indicated in the pH adjustment

5. Collecting and Hauling - ***(Insert company name)*** will collect the hydrodemolition runoff water and the hauling will be based on the following:

i. Hazardous Waste - If the hydrodemolition runoff water is hazardous and isn't neutralized, then the runoff water will be transported by ***(Insert licensed hazardous waste transport company name)*** for disposal at ***(Insert licensed hazardous waste disposal company name)***

ii. Non-Hazardous Waste - If the hydrodemolition runoff water is nonhazardous, then the runoff water will be transported by ***(Insert licensed liquid industrial waste transport company name)*** for disposal at ***(Insert licensed liquid industrial disposal company name or public owned treatment works)***

Copies of waste manifests forms will be forwarded to the engineer.

d. Generator and/or Transport Site Identification Number - ***(Insert company name)*** will either obtain a generator or site identification number from the MDEQ Waste and Hazardous Materials Division or use a licensed liquid industrial waste hauler to transport the hydrodemolition runoff water.

List the site identification number for each structure: ***(Insert Structure Location and Structure Name)*** is ***(Insert Site ID Number).***
(Insert licensed liquid industrial waste transport company name) will transport the hydrodemolition runoff water.
(Insert company name) will contact the engineer to request a site identification number from MDEQ

e. Discharge - ***(Insert company name)*** will not discharge into any surface waters of the state, storm water drainage systems, or in areas where discharging is not permitted. ***(Insert company name)*** will coordinate the collecting, hauling, proper disposal of the hydrodemolition runoff water, and will obtain approval from the engineer for the discharge method and location prior to beginning the hydrodemolition operation. The discharge of the runoff water will only occur on MDOT right of way and will be distributed as evenly as possible. Discharge will be minimized via curb side culverts and downspouts. ***(Insert company name)*** will record hours of the hydrodemolition process and the volume of water discharged. Measures will be maintained for managing the runoff water by ***(Insert company name)*** in good working order.

f. Disposal of Hydrodemolition Runoff - ***(Insert company name)***

1. Nonhazardous Runoff Water Disposal - ***(Insert company name)*** will collect the water. ***(Insert liquid industrial waste company name)*** will transport to ***(Insert disposal location, either a solid waste facility or licensed liquid industrial waste disposal facility)***.

(Insert company name) will forward copies of the manifests to the engineer.

2. Hazardous Runoff Water Disposal - ***(Insert company name)*** will collect the water. ***(Insert hazardous waste transport company name)*** will transport to ***(Insert hazardous waste disposal facility)***.

(Insert company name) will forward copies of the manifests to the engineer.

g. Contractor Responsibility for Method of Operations - ***(Insert company name)*** will comply with all environmental laws and regulations.

h. Records - ***(Insert company name)*** will maintain a copy of all manifests for three years and make them available to MDEQ upon request.