APPENDIX C

CHESAPEAKE BAY

BRIDGE-TUNNEL DISTRICT

VPDES PERMIT NO. VA0006203

OPERATION & MAINTENANCE MANUAL

Chesapeake Bay Bridge and Tunnel District

32386 Lankford Highway

Cape Charles, VA 23310

Revised: June 2024

Table of Contents

I. INTRODUCTION

A. Purpose of the Manual

The purpose of this manual is to provide District personnel with basic information on the operation, maintenance, and monitoring procedures for the tunnel drainage systems of the Thimble Shoal and Chesapeake Tunnels, as well as spill containment and clean up procedures and required housekeeping of the Maintenance Area.

This manual contains a description of the tunnel drainage systems and the Maintenance Area, operations and inspection procedures, sampling, testing, records and reporting procedures, general maintenance and equipment records procedures, as well as safety and emergency procedures. Although this manual will be most useful in familiarizing new personnel with the systems, it is quite important that all system personnel maintain a familiarity with its contents. This manual should be updated as conditions change and additional pertinent information should be incorporated in it as is appropriate for future use.

B. Brief Description of Tunnel Drainage System

The roadways of the tunnels and open approach ramps are drained by means of continuous longitudinal open gutters on each side, which conduct drainage water into sumps under the roadway at each portal and at the low point of the tunnel. From the sumps the water is removed by motor driven drainage and sump pumps and is discharged overboard at the retaining wall. Overflows are provided so that water in excess of the capacity of the sumps flows into the lower air duct. A more detailed description of the tunnel drainage systems components and capacities can be found in Section IV.

C. Brief Description of Maintenance Area

The Maintenance Area consists of the following:

1. Maintenance Building – Auto Shop, Carpentry Shop, Management Information Systems, Shop and Supply Storage.
2. Generator and Storage Building houses the Districts backup generators which supply emergency power to the Administration Building, Maintenance Building, Generator and Storage Building, North Toll Plaza and the Rest Area in the event of power outage. This Building is also used for general storage of tow trucks, lawn equipment and other items pertaining to the maintenance of the facility. A small portion of this building is set aside for storage of District records.
3. Salt Storage Building-Divided building used for storage of de-icing salt and salt/sand mix.

4. Electrical Storage Building houses a bucket truck and items required for electrical maintenance of the facility.

II. DISCHARGE REQUIREMENTS

A. Permit

The Department of Environmental Quality has issued a Virginia Pollutant Discharge Eliminations System (VPDES) permit which defines the quality of effluent that the tunnel drainage systems must discharge, as well as listing other requirements, all of which are covered in this section.

A complete copy of the permit is included herein as Appendix A. The following is a summary of the permit discharge requirements, and parameters.

Permit No. VA0006203
Permit Expiration Date: July 31, 2025
Renewal Application Date: 180 days prior to expiration date.

B. Discharge Requirements

Current Effluent Discharge Requirements for Outfall 001, 003, 004 & 006

Effluent Characteristics	Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NL	NA	NA	NL	1/6 Months	Estimate
pH (Standard Units)	NA	NA	6.0	9.0	1/6 Months	Grab
Total Suspended Solids (mg/l)	30	NA	NA	60	1/6 Months	Grab
Total Petroleum Hydrocarbons (mg/l)	10	NA	NA	15	1/6 Months	Grab
Total Dissolved Copper (ug/L)	NA	NA	NA	NL	1/6 Months	Grab
Total Dissolved Zinc (ug/L)	NA	NA	NA	NL	1/6 Months	Grab

NA= Not applicable
NL= No Limit
UG/L= Micro Milligrams/Liter
Mg/L= Milligrams/Liter
MGD= Millions of gallons per day

Current Effluent Discharge Requirements for Outfall 002 & 005

Effluent Characteristics	Monthly Average	Weekly Average	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NL	NA	NA	NL	1/3 Months	Estimate
pH (Standard Units)	NA	NA	6.0	9.0	1/3 Months	Grab
Total Suspended Solids (mg/l)	30	NA	NA	60	1/3 Months	Grab
Total Petroleum Hydrocarbons (mg/l)	10	NA	NA	15	1/3 Months	Grab
Total Recoverable Copper (ug/L) (a)	NA	NA	NA	18.6	1/3 Months	Grab
Total Recoverable Zinc (ug/L) (a)	NA	NA	NA	180	1/3 Months	Grab

NA= Not applicable
NL= No Limit
UG/L= Micro Milligrams/Liter
Mg/L= Milligrams/Liter
MGD= Millions of gallons per day
(a) Limits become effective 7/1/2024. No monitoring is required until the limit is effective.

C. Tunnel Wash Operations

During the period when tunnel washing is conducted the sample shall coincide with discharge of effluent resulting from the washing and rinsing of the tunnels. Records regarding tunnel washes are kept on Tunnel Wash Log Sheets, see Appendix M for an example.

D. Scheduled Submissions

The permittee effectively monitors operations and efficiency of the tunnel drainage systems and the quality of the effluent discharged. Reports are to be submitted after the end of each reporting period. This is accomplished through the DEQ portal, online. The contacts, outside of the portal, if needed, are as follows:

Department of Environmental Quality — Phone: (757) 518-2000
5636 Southern Blvd.
Virginia Beach, VA 23462-2407

Office of Wastewater Engineering — Phone: (757) 518-2199
Mrs. Marcy Garnett
5636 Southern Blvd.
Virginia Beach, VA 23462-2407

III. PERSONNEL

A. Organization

The tunnel drainage systems are owned and operated by the Chesapeake Bay Bridge and Tunnel District. Facility maintenance and operations is provided for under the Director of Maintenance.

Organization Chart

Executive Deputy Director, Infrastructure- Michael T. Crist (757) 331-2960

Director of Maintenance- Timothy R. Holloway (757) 331-2960

Superintendent of Shops and Services- Douglas L. Brady (757) 331-2960

Superintendent of Electrical/Mechanical- Chase E. Sturgis (757) 331-2960

B. Operators

No operator certification is required at this time, thus on-site operations will be carried out by the Island Operators and Maintainers who are on-site 24 hours a day, seven days a week. Actual time spent at each sump pump will vary from day to day, but will average one to two hours total per day depending on maintenance and testing requirements. Remote monitoring of all system activity is done on a 24 hour a day basis by the Island Equipment Operators

C. Responsibility

The on-site operating staff will be responsible for daily operation and maintenance of the facility under the direction of the Superintendent of the Electrical/Mechanical Department. Their primary objective is to ensure that system performance is maintained at a high level and to inform their superiors of any operational or maintenance problems.

IV. DESCRIPTION, OPERATION AND CONTROL OF TUNNEL DRAINAGE SYSTEM

A. General Information

The roadways of the tunnels and open approach ramps are drained by means of continuous longitudinal open gutters on each side, which conducts the drainage water into sumps under the roadway at each portal and at the low point of the tunnel. From the sumps, the water is removed by motor-driven drainage sump pumps and discharged overboard at the retaining wall.

With this type of tunnel, where the waterproofing medium is a continuous steel shell, seepage from leaks will be a minor concern. Most of the water to be taken care of in the tunnel proper will be from operational activities such as tunnel washing, flushing roadways and gutters, firefighting, draining water lines, leaking valves and hose outlets.

At the portal entrances, the long open ramps present a large drainage area for storm runoff. This is prevented from entering into the tunnel by cross-roadway grating, which intercepts the flow if beyond the capacity of the side gutters, and leads it directly into the portal sump.

B. Portal Sumps

The sumps at each north and south portal have the capacity of approximately 20,000 gallons of water each, and are each drained by three pumps-two of 1,500 gallons per minute (gpm) capacity and one 200 gpm.

Pumps were manufactured by the Aurora Pentar Pump Group and are of the horizontal, centrifugal type, directly connected through a flexible coupling to a squirrel cage motor mounted on the same base.

Pumps have split cast iron casings with bronze wearing rings, bronze enclosed impellers, ball bearing shafts, and bronze stuffing boxes with packing. Inlets are submerged so that the casing is always flooded, with no priming or foot valves required.

Motors for the 1,500 gpm pumps are 40hp, and for the 200 gpm pumps are 7 V2 hp, Baldor 550 volt, 3-phase, 60-cycle, 40-degree rise over 40-degree ambient.

Across-the-line starters, controlled by float switches operated by the level of water in the sump, are provided for each motor. Starters are wall mounted and enclosed in cast iron watertight cases. Float switches are adjustable to control the starting and stopping of the pumps in relation to the water in the sump.

The float switches are arranged so that the 200 gpm operates first, and this is usually sufficient to handle all normal conditions. The larger pumps activate in sequence, if the small pump is unable to handle the inflow such as might happen in event of torrential downpour.

The action of each of the sump pumps is indicated by an alarm in Operators room. A fourth light is provided to register a high-water alarm if the inflow exceeds the capacity of all the pumps.

C. Mid-Channel Sumps

At the lowest point of each tunnel, a section of the air duct has been blocked off to provide a sump and a pump room. This sump normally will handle all the drainage from the tunnel roadway. Each sump has a capacity of 17,000 gallons, and is drained by two 300 gpm pumps, operated by float switches.

Pumps were manufactured by Aurora Pentar Pump Group, are of the horizontal, split case, open impeller type similar to portal pumps. Each is driven by a 25 hp motor. Because of the peculiar construction of the sump, these pumps are not the wet intake type, but are equipped with check valves in the suction line to hold the prime. A small fresh water tank with float is provided to keep both pumps primed.

The pumps are operated by float switches of the pressure type, not adjustable for height after installation. To equalize service on the pumps, a double throw switch has been provided to transfer the controls from the low water float to the high-water pump periodically. Both pumps have an alarm to notify the operator, and a high-water alarm with indication in the operator room. The general arrangement of piping for the mid-channel sumps is shown on Drawing OM-126. See Appendix K.

D. Operation

Operation of the sump drainage pumps is automatically controlled by the various float switches. The indications on the Control Board serve to acquaint the Supervisor with their action and inform him when failure or abnormal conditions arise.

Normally, at any sump, the No. 1 pump should activate first and run for a few minutes, then stop. Continual running means that an abnormal flow of water is entering the sump pit. If the second pump activates, the inflow must be beyond the capacity of No. 1 or else No 1 is blocked or has lost its prime. If the high-water light comes on with all the pumps operating, the problem must be investigated immediately.

E. Routine Inspection

Portal pump rooms shall be checked and inspected once each day by the Maintainer on watch, preferably on the 12-8 tour. At this time, pump room conditions should be noted, whether wet and damp from excessive condensation, or particularly for the presence of noticeable gasoline or other flammable vapors; if present, ventilate. Avoid open flames or lights in pump rooms or sumps.

All sump pump rooms shall be checked weekly by pump mechanics and all pumps tested at this time.

Test each pump for a short operation by means of the push button on the starter case. Avoid running over a minute to keep the pump casing from becoming dry and overheat if little to no water is present with sump.

When operating the pumps, listen for unusual noises such as grating, thumps, laboring, etc. Check lubrication of bearings on pumps and motors and leakage at packing glands. A slight drip is not objectionable, but water should not spurt out.

Check the prime in mid-channel pumps and renew if prime was lost and the automatic priming tank is not functioning. When operating pumps, check with Supervisor to determine if proper indications are being received.

F. Tunnel Drainage Sump Data

The table below shows the sumps and equipment for each tunnel:

Location	Capacity	Pumps	Head	Motor
South Portal Sump	20,000 Gallons	1,500 gpm 1,500 gpm 200 gpm	70 ft. 70 ft. 70 ft.	40 hp 40 hp 7 ¼ hp
Mid-Tunnel Sump	17,000 Gallons	300 gpm 300 gpm	180 ft. 180 ft.	25 hp 25 hp
North Portal Sump	20,000 Gallons	1,500 gpm 1,500 gpm 200 gpm	70 ft. 70 ft. 70 ft.	40 hp 40 hp 7 ¼ hp

V. MONOTORING, LABORATORY ANALYSIS AND REPORTING

A. Sampling

Laboratory test and results can only be as good as the samples obtained, which places a premium on the use of the correct methods for obtaining samples. Currently the VPDES permit mandates that the District take one sample, that being a grab sample. A grab sample is an individual sample taken at no set time or flow.

B. Grab Sample Guidelines

1. Samples are to be taken from the sump pump valve. The samples are to be obtained during tunnel washing activities during normal activation of the pumps. If normal activation of the pumps does not occur during the tunnel washing activity, samples are to be obtained no later than five (5) minutes after manual pump activation. The tunnel washing end time, sample time, and which pump activation mode (normal or manual) used shall be recorded in the tunnel washing log and on the DMR.
2. Samples should be taken at locations where the storm drain water is as completely mixed as possible.
3. Particles greater than ‘1/4” in diameter should be excluded when sampling.
4. Any floating materials or growth should not be included when sampling.
5. If required, samples to be kept for an hour or more should be refrigerated prior to testing to retard bacterial action.
6. During periods when tunnel wash operations are conducted, the required sample shall coincide with the discharge of effluent from the washing and rinsing of the tunnels. Periodically Elements E-12 cleaner is used during this operation. MSDS are on file for this material.

C. Testing and Laboratory Procedures

1. Required Testing/Measurements
    a. Suspended Solids Test- these are solids that can be filtered from the samples. The suspended solids concentration also includes the settleable solids. This test indicates the quantity of sludge that will develop during sedimentation.
    b. PH Test- is a measure of the acidity or alkalinity of a solution. The PH test insures the molar concentration of liquid is neither too acidic nor too basic to sustain life.
    c. Total Petroleum Hydrocarbons (TPH) testing- this analysis is used to measure the amount of hydrocarbon compounds with six to ten carbons (abbreviated C6-C10). These compounds are commonly associated with an unpleasant odor and are commonly found in solvents and motor vehicle gasoline fuel. In addition, this analysis

is used to measure the amount of hydrocarbon compounds with 10 to 24 carbons (C10-C24). These compounds are associated with diesel fuel, are generally flammable and produce a lot of energy when burned.

d. Flow Estimate- The VPDES Permit mandates that the District System Flow be estimated. This may be done with a fair degree of accuracy by use of the operators log in which is noted the times of pumping (as indicated by remote monitors) and the rated capacities of the pumping apparatus included herein.

e. Total Dissolved Copper and Zinc- The maximum quantification levels (QL) shall be as follows: Copper 5.0 ug/l and Zinc 50 ug/l. The permittee may use any approved method which has a QL equal to or lower than the (QL) listed above. The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance /quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs haven been attained. An appropriate analytic method for metals shall be selected from the following list of EPA methods, or any approved method in 40 CFR part 136, which will achieve a QL that is less than or equal to the QL specified above.

f. Total Recoverable Copper and Zinc - is determined by analyzing the unfiltered sample. The total metal concentration equals dissolved metal concentration and the particulate (insoluble) metal concentration.

2. Test Procedures
   Laboratory test procedures are given in the publication “Standard Methods for the Examination of Water and Wastewater”, published jointly by APHA, AWWA and WPCF. A copy of this should be kept in the testing laboratory at all times. A simplified description of Sampling and Analysis Details can be found in Appendix L.
3. Laboratory Services for the District are currently provided by:

   Jennings Laboratory
   1118 Cypress Avenue
   Virginia Beach, VA 23415
   Phone: (757) 425-1498

D. Sampling Locations

Samples will be taken in accordance with Section II of this Manual and VPDES permit at the following locations:

Outfall 001- #1 Island Pump
Outfall 002- Mid-Channel Thimble Tunnel *
Outfall 003- #2 Island
Outfall 004- #3 Island
Outfall 005- Mid-Channel Pump Chesapeake Tunnel
Outfall 006- #4 Island

Please see location map Appendix C.

** CTJV has officially taken over the Thimble Tunnel Outfall 002, which is the Low Point Pump Station. CTJV will be responsible for any water testing and reporting in accordance with their permit with DEQ for this outfall until further notice. See Appendix J.*

E. Record and Reporting Requirements

For each measurement or sample taken as per the requirements of the VPDES Permit, the following information is required:

1. Date, place (exact outfall location), and time of sampling or measurement.
2. The name of person who performed the sampling or measuring.
3. Date (s) of the lab analysis.
4. The name of person who performed each analysis.
5. Analytical method or technique used.
6. The Results of such analysis or measuring.

This information must be provided to the Department of Environmental Quality, Water Division, on the VPDES Discharge Monitoring Form (DMF).

The necessary information must be averaged and recorded on the DMR and submitted to the above agency by the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then no discharge shall be reported on the DMR.

Records and Reporting for the basin maintenance as per the requirement of the VPDES Permit are as follows and shall be recorded in a Basin Maintenance Log.

1. Date and time of inspection.
2. Exact location of inspection.
3. The name of the person who performed the inspection.
4. Action taken (basin strainers cleaned, basin pumped, etc.) if basin pumped, by whom and when.
5. Condition of water surface (oil sheen on surface of water, considerable floating trash, or clear.)

6. The Basin Maintenance Log shall be a book with non-removable pages.

F. Non-Compliance of Limitations of Discharge

If the weekly or monthly average limits or any other standard specified in the VPDES permit is violated, the permittee shall submit to the board the following information:

1. Description of discharge and cause of non-compliance.
2. The period of non-compliance, including exact dates and times and/or anticipated time when the discharge will return to compliance.
3. Action taken or to be taken to reduce, eliminate, and prevent recurrence of the non-complying discharge (s).
4. A log must be kept at the site. Such observations as operator on duty, weather condition, unusual occurrences, operation problems, etc. should be recorded in ink on a daily basis.
5. Records should be kept available for 5 years in addition to the logbook, and any operating forms, correspondence, or data sheets (including lab bench sheets) fall into this category.

G. Maintenance Area

A visual inspection of the Maintenance Area shall be performed on a monthly basis. Deficiencies shall be noted and corrected immediately. Records of these inspections as well as the Annual Inspection shall include the following:

1. Date and time of inspection.
2. Exact location of inspection.
3. The name of the person who performed the inspection.
4. Actions taken
5. Corrective measures taken.

VI. GENERAL MAINTENANCE OF TUNNEL AND DRAINAGE SYSTEM

A. Maintenance, Scheduling and Procedures

At least once each week, all pump rooms and equipment should receive a thorough mechanical and electrical inspection and test.

Bearings should be checked for adequate lubrication; and since there are ball bearings, when adding new grease, avoid over-greasing.

Stuffing glands should be checked, and tightened if leaking excessively. Pay particular attention to the gland on the motor end of the pump, since a failure here will spurt water into the motor winding, resulting in insulation deterioration. Avoid tightening gland too tight, as this puts excessive compression on the packing and may cause scoring of the shaft. A good rule is to permit a slight drip at each gland, but not a steady stream or spurt.

Open starting cabinets, check and inspect contact surfaces of contactors and relays, and dress up and burnish, if needed. Check action of float switches, tighten

and adjust rods and collars. Once each month, at the portal sumps, change the collars on the float switch rods for the 1,500 gpm pumps to alter the order of operation to equalize wear.

B. Equipment Records
The operator shall maintain a log of all maintenance part replacement and inspections.

VII. GENERAL MAINTENANCE AREA

A. Auto Shop
Housekeeping and clean up shall be performed on a daily basis. All petroleum products, chemicals or cleaners shall be stored in an area that provides adequate protection and eliminates the possibilities of spills or contamination. Spills shall be cleaned up immediately. Materials used for spill containment or clean-up shall be collected, labeled and disposed of as directed by the supervisor.

B. Generator and Storage Building
Housekeeping and clean-up shall be performed as needed. Monitor Tow Trucks and lawn equipment for leaks. Report leaks to Supervisor and clean up immediately.

C. Salt Storage Building
Clean up de-icing salt from paved area to eliminate run-off.

D. Management Information Systems
General housekeeping and monitor vehicles for leaks.

E. Electrical Storage Building
General housekeeping and monitor vehicles for leaks.

F. Maintenance Yard
Supervisor shall perform a visual inspection on a monthly basis. Petroleum products and chemicals shall be stored in an area that provides adequate protection, overhead protection and eliminates the possibilities of contamination to the surrounding areas. Fuel storage tanks are continuously monitored by a Veeder Root system. Leak test are performed on a monthly basis and visual inspection of pumps, hoses and surrounding area is performed daily.

VIII. SAFETY AND EMERGENCY PROCEDURES

A. General
District Safety Manual can be provided upon request, which covers the basic safety practices and measures.

B. Emergency Procedures
If any unusual or extraordinary spillage occurs in either of the tunnels, the following actions shall be taken:

1. Discharge pumps shall be disabled.
2. A contractor shall be called in to pump out infected basins (such as Hepaco/Atlantic IMS or equivalent)
3. Basins shall be cleaned before discharge pumps are enabled.

The office of the D.E.Q. shall be notified by phone in no less than 24 hours after the incident. (757) 518-2077 office hours or call the Department of Emergency Management for reporting emergency situations after hours 1-800-468-8892.

A follow-up letter shall be sent to the office of the D.E.Q., in no less than 5 days, reporting what the incident was, what caused the incident, what has been done to prevent such an incident from happening again, and a log of actions taken to clean up and remove the unanticipated spill.

IX. STORM WATER PROTECTION PLAN

A. Pollution Prevention Team

Timothy R. Holloway	Director of Maintenance
William S. Spence	Sr. Engineer Technician
Chase E. Sturgis	Electrical/Mechanical Superintendent
Douglas L. Brady	Shops and Services Superintendent

Emergency contact number is 757-331-2960. This phone is manned 24 hours a day, 7 days a week and is in constant communication with District personnel via telephone or radio. Officer in charge has Hepaco's response number if required. Hepaco: (757) 438-8716 (Office), (757) 543-5718 (cell) Calvin Petit.

If pollutant exceeds 5 gallons: The office of the D.E.Q. shall be notified by phone in less than 24 hours after incident. This will be followed with a written explanation/description of the incident to be submitted within five days.

D.E.Q. Pollution Response Program Number:

Monday-Friday, 8:30 a.m. – 4:30 p.m.	(757)-518-2077 (D.E.Q.)
After Hours	1-800-468-8892 (D.E.M.)

B. Possible Pollutant Sources:

1. Vehicular problems
2. Petroleum Products (Maintenance Area)
3. Products used in the maintenance of vehicles (Maintenance Area)
4. The Ventilation Buildings contain multiple potential contaminates. Liquids listed below are stored on floors 3 and 5, with the chances of these liquids reaching the roadway and entering the storm water conveyance system being near non-existent. For reference, the catwalk adjacent to the roadway is at floor 1 of the concrete ventilation buildings. All floors and walls of the building are concrete.
5. Fluids and pollutants in Ventilation Buildings, with quantities listed.

a. Typical Liquids in the Vent Buildings – 5th floor
    i. < 2 Gallons - toilet bowl cleaner (BETCO rest stop disinfectant 070) Stored in the bathroom.
    ii. < 2 Gallons – floor cleaner (BETCO pH7 daily floor cleaner) stored in the kitchen cabinet.
    iii. < 3 Gallons 15-40 generator motor oil (stored in metal container in 5th floor metal cabinet).
    iv. < 3 Gallons chain case oil A/W hydraulic oil 150 (stored in metal container in 5th floor metal cabinet).
    v. < 3 Gallons 10 wt. bearing oil (stored in metal container in 5th floor metal cabinet)
b. Typical Liquids stored in the #3 Island Vent Building, 3rd floor:
    i. 3 ea. 55 Gallon metal drum A/W hydraulic oil 150 on third floor. Stored on spill-proof drum dollies.
    ii. 40 ea. Cases of 3 - 4qt plastic containers 15-40 motor oil. Stored on pallet.
c. Typical Liquids stored in #4 Island Vent Building, 3rd floor:
    i. 2 Total - 55 gallon capacity metal drums with < 55 gallons each of old oil stored on spill-proof dollies to be transferred to recycling truck as needed.
    ii. 3 Total - 55 gallon capacity metal drums with < 55 gallons each of diesel and water stored on spill-proof drum dollies to be transferred to recycling truck as needed.
    iii. 3 Total - 55 gallon capacity metal drums with < 55 gallons each of AW 150 hydraulic oil stored on spill-proof drum dollies.
    iv. 2 Total - 55 gallon capacity metal drums with < 55 gallons each of AW 68 hydraulic oil stored on spill-proof drum dollies.
    v. 2 Total- 5 Gallon plastic buckets with < 5 gallons each of AW 46 hydraulic oil.

C. Measures and Controls
1. House Keeping: Roadways, Islands and Maintenance Area are to be monitored and kept free of obstructions and debris to minimize possibilities of contamination.
2. Control Preparedness: Align - Poly Overpack Drum Spill Kits (see figure 1) are located on each Island. These 55 gallon drums are packed full of absorbent pads, socks and pillows should there be a spill that requires containment. In addition, Emergency Control Crew members keep Sta-dry with brooms, shovels and trash bags on their rollbacks.

Figure 1 - Typical Drum Spill Kit located on each Island at the Ventilation Building and Maintenance Yard.

3. Management of solids, waste, fluids, pollutants:
    a. Removal and disposal of used products in the vent buildings, stored in 55 gal drums that sit on spill proof drum dollies, such as oil, hydraulic fluid, antifreeze, etc. is procured through the District's policy. Safety Kleen has typically been low bid. They remove these products and dispose of off-site.
    b. Gutters and Strainers – trash from the gutters and strainers is removed by District forces placing it in 5 gal buckets. Buckets are emptied in District dumpsters. Trash in dumpsters is hauled and disposed of off-site by Davis Disposal.
    c. Sand and dirt that accumulate in the portal and low point stormwater catchment tanks is removed by a third party vac-al truck as needed. This was recently done in the spring of 2024.
4. Employee Training: Storm water training will take place once a year. Employees involved with testing and monitoring storm water are required to attend this training.

A log shall be kept to coincide with the SWP-3 plan. This log shall be an accurate record listing all spills, inspections and evaluations. The log sheets in Appendix G shall be utilized.