Storm Water Pollution Prevention Plan

Appomattox Lime Company
143 Quarry Road
Appomattox, Virginia 24522

Prepared for:
Rockydale Quarries Corporation
2343 Highland Farm Road, NW
Roanoke, Virginia 24017

Prepared By:
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Ward Environmental Services PLLC

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INTRODUCTION

The Virginia Department of Environmental Quality (DEQ) has issued the facility a Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Storm Water Associated with Nonmetallic Mineral Mining to Rockydale Quarries Corporation, which owns and operates the Appomattox Lime Company located at 1125 Lime Plant Road in Appomattox, Virginia. This facility was issued General Permit No. VAG840046, which became effective July 1, 2014 and expires June 30, 2019.

As a requirement of the General Permit, Appomattox Lime Company must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of the plan is to identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility, and to describe the best management practices (BMPs) developed and implemented to minimize storm water pollution.

The format of this SWPPP is in general conformance with the requirements of the State Water Control Board's Final Regulation, 9VAC25-151, adopted December 17, 2013.

The overall purpose of the SWPPP is to address contaminates that can adversely affect water characteristics. A copy of the SWPPP is maintained on-site at the facility. The SWPPP is available for inspection during normal business hours, 8:00 a.m. to 5:00 p.m. Monday through Friday, except for holidays, at this location.

OWNER CERTIFICATION

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for known violations."

Chris Willis — Area Manager

Signature — Title

Chris Willis — 10/24/2017

Printed — Date

MANAGEMENT REVIEW AND APPROVAL

This SWPPP is fully approved by the management of the Rockydale Quarries Corporation and the Appomattox Lime Company. The necessary resources have been committed to implement the SWPPP as described.

2/21/17

Keith Holt
Environmental, Health & Safety Coordinator
Rockydale Quarries Corporation

Date

2/21/17

Mathew Wolverton
Mine Manager
Appomattox Lime Company

Date

DIRECTIONS TO THE FACILITY

Rockydale Quarries Corporation
Appomattox Lime Company
1125 Lime Plant Road
Appomattox, Virginia 24522
(434) 933-8258

To facility from U.S. Route 460 at Appomattox:

1. Take Route 26 East (Oakville Road) for 7 miles.
2. Turn left onto Route 611 (Lime Plant Road) for 2.5 miles.
3. Bear to the left through the entrance of the Appomattox Lime Company.

FACILITY INFORMATION

Owner: Rockydale Quarries Corporation

Owner Address: 2343 Highland Farm Road, NW
Roanoke, Virginia 24017

Operator: Rockydale Quarries Corporation

Name of Facility: Rockydale – Appomattox Quarry

SIC Code: 1422 (Crushed and Broken Limestone)

Mailing and Site Address: 1125 Lime Plant Road
Appomattox, Virginia 24522

Pollution Prevention Team:

Pollution Prevention Coordinator: Eric Stone
Position: Mine Manager
Contact Number: (434) 933-8258
Responsibilities: Implementation of the SWPPP. Coordination with SWPPP team member(s) and assign tasks to supervisors. Performs inspections, cleans up spills, and implements O&M erosion and sediment control programs

Team Member: Kendall Adams
Position: Foreman
Team Member: Keith Holt
Position: Environmental, Health & Safety Coordinator
Contact Number: (540) 597-5017
Responsibilities: Management of the VPDES General Permit and incorporates changes into SWPPP as necessary. Ensures the SWPPP and storm water monitoring requirements are up to date, annual training is performed, and communicates with the executive level of the company.

The SWPPP is maintained in the Environmental, Health & Safety Coordinator's Office and is also available for onsite inspection during normal working hours in the Mine Manager's Office. Please contact the Pollution Prevention Team, which includes the Mine Manager (Eric Stone), Foreman (Kendall Adams), and the Environmental, Health & Safety Coordinator (Keith Holt).

1.0 GENERAL REQUIREMENTS FOR AN SWPPP

1.1 Facility Description and Layout

The Appomattox Lime Company is located at 143 Quarry Road in Appomattox, Virginia. The facility is a multi-bench, nonmetallic mine manufacturing a variety of construction aggregates erosion control products, and specialty products such as AG Lime. The main process area include overburden removal, drilling/blasting, loading/hauling, crushing, conveying, screening, shipping/receiving, maintenance, and stockpiling storage areas.

Figure 1, General Location Map, shows the graphical location and access routes to the facility. The facility is currently owned and operated by the Rockdale Quarries Corporation. Coordinates for the facility are 37° 28' 52"N, 78° 53' 47"W at an altitude of 520 feet above mean sea level. The Mine property consists of approximately 226 acres.

The local topography is characterized by steep-sided hills and narrow drainage valleys. The storm water drainage pathway for the oil handling areas at the facility is shown on **Figure 2,** the Facility Site Plan. Surface water runoff from the facility flows inward to a centrally located eight foot deep surface impoundment, which discharges via a pressurized piping system to water storage tanks and/or an outfall into Wreck Island Creek.

1.2 Potential Source of Storm Water Pollution

The Appomattox Lime Company's potential pollutant storage is entirely outdoor and includes a multiple aboveground storage tanks (ASTs) and product storage areas (stockpiles). There are no underground storage tanks located at the facility. SWPPP planning requires the development of a list of significant materials that were exposed to storm water during the past three years and/or are currently exposed. Exposure includes any lack of complete shelter from rainfall contact even if the materials are stored within a pile, drum, tank, etc. *Significant materials* as defined in 40CFR Part 122.26(b)(12) are substances related to industrial activities such as process chemicals, raw materials, petroleum products, paints, solvents, pesticides, fertilizers, and associated waste products.

Figure 2 shows the layout of the facility, including the location of all potential pollutant areas. **Table 1** on the following page lists the outdoor potential sources of storm water pollution and corresponding BMP.

Table 1 Outdoor Potential Sources of Storm Water Pollution Appomattox Lime Company		
Potential Pollutant Area	**Contents**	**BMP(s)**
Left of Maintenance Shop	275-Gallon Single-Walled Steel Mobiltrans HD 10W Oil	• Integrated Steel Double Walled AST • Good Housekeeping • Periodic Visual Inspections • Visual Monitoring During Fueling • Spill Kits
	600-Gallon Double-Walled Steel Mobilfleet 15W-40 Engine Oil	
	600-Gallon Single-Walled Steel Mobile NUTO H45 Hydraulic Oil	
Across of Maintenance Shop	500-Gallon Double-Walled Steel PAR 150 Mineral Oil	• Integrated Steel Double Walled AST • Good Housekeeping • Periodic Visual Inspections • Spill Kits
Behind Maintenance Shop	10,000-Gallon Single-Wall Steel Diesel Fuel (D-01)	• Concrete Secondary Containment Dike • Good Housekeeping • Visual Monitoring During Fueling • Periodic Visual Inspections • Spill Kits
	2,000-Gallon Single-Walled Steel Used Oil (U-01)	
Right of Maintenance Shop	1,000-Gallon Double-Walled Steel Gasoline (G-01)	• Integrated Steel Double Walled AST • Good Housekeeping • Visual Monitoring During Fueling • Periodic Visual Inspections • Spill Kits
Entrance to Maintenance Shop	55-Gallon Steel Drums and 125-Gallon Lube Reservoirs (Various Lubes and Oils)	• Good Housekeeping • Periodic Visual Inspections • Spill Kits

1.3 Discharge Prevention Measures

Aboveground Storage Tanks

To the right of the Maintenance Shop is a 1,000-gallon double walled gasoline tank (G-01). In the Bulk Lube Shed, which is to the left of the Maintenance Shop, are a 600-gallon Mobile H46 hydraulic oil tank, a 600-gallon Mobilfleet 15w-40 engine oil tank, and also a 275-gallon Mobiltrans HD 10W oil tank. Located in the back of the Maintenance Shop you will find a 10,000-gallon diesel fuel tank (D-01) and a 2,000-gallon used oil tank (U-01), both within secondary containment. Lastly, diagonally to the right of the front of the Maintenance Shop is a 500-gallon PAR 150 oil tank.

General facility containment from refueling releases and piping releases is provided by active containment measures. These measures include following the safe-filling and

pumping procedures, having spill kits immediately accessible, and training individuals to stop releases before they reach the nearest drop inlet.

Electrical Transformers
This facility operates with an oil-filled electrical transformer. This transformer is owned by Central Virginia Electric and contains non-PCB mineral oil.

Solid Waste Handling and Disposal
Solid wastes are permitted by the Division of Mines, Minerals, and Energy (DMME) to be disposed of onsite.

Wastewater Handling and Disposal
Wastewater is not generated at this facility. No municipal storm systems are located on the property.

1.4 Countermeasures and Response

Small Spills
Small spills will be contained and cleaned up by facility personnel using spill response equipment and materials. The infrastructure is in place to provide facility personnel training on the use and proper disposal of spill equipment, which is located throughout the facility.

Large Spills
In the event of a "reportable oil spill or discharge," the following procedures should be initiated:

1. Survey the area carefully before proceeding, to prevent endangering yourself or your fellow employees.
2. If possible, stop the leak or spill at the source and turn off any ignition switches to nearby vehicles and/or equipment.
3. Ensure the spill has been adequately contained by secondary containment or diversionary structures. Verify that the manhole valve is closed and has contained the spill.
4. Notify the Mine Manager who will notify the spill response contractor, the local fire department, and federal, state and local organizations as appropriate.
5. Deploy absorbent materials downstream from the spill to block all migration pathways to the storm water conveyance channels that eventually discharge into Wreck Island Creek, which are the nearest body of navigable water.
6. Oil should be collected and prevented from flowing or being carried off-site.

Spill Clean-Up
After the source of the spill has been stopped, and the released product is contained, clean- up of the impacted areas should begin. Quick clean-up of a released substance substantially reduces the potential for the product to migrate downward through the soil or migrate off site.

Free product should be pumped into a tank truck and properly recycled or disposed. Contaminated soils should be excavated and placed in drums or roll-off containers depending on the quantity of product spilled. After excavation has been completed to the satisfaction of supervisory personnel at the facility, the remaining soils should be sampled to ensure that all impacted soils were removed. Soils placed in drums and roll-off containers should also be sampled to determine the proper method of disposal. The Virginia DEQ guidelines should be followed for characterization and disposal of all excavated soils.

In the event oil or chemical products from a spill at the site reach a navigable body of water, the facility should contact the local emergency response group and an appropriate cleanup contractor. The DEQ should be consulted, as necessary, during clean-up operations to ensure that cleanup actions taken by facility personnel satisfy DEQ requirements.

1.5 Spill Response Equipment

Spill response kits are maintained at the Maintenance Shop and near the ASTs at the Storage Trailer. The facility will contact WEL or Environmental Options, 911, the Virginia Department of Environmental Quality (or the Virginia Department of Emergency Management) and the National Response Center, as necessary, to provide resources and manpower to respond to major releases that cannot be safely controlled and cleaned-up using on-site equipment.

Spill response equipment and supplies consisting of, but not limited to,10-foot absorbent booms and 60-pack bundles of absorbent pads, and related labels, bags and ties, hand tools and or other spill response equipment necessary to protect the storm water drop inlets will be readily accessible during petroleum transfer operations.

1.6 Pollution Prevention Team

The Appomattox Lime Company has identified a Pollution Prevention Team (PPT) that is responsible for the implementation of the SWPPP. The PPT for the facility will be responsible for overseeing storm water pollution prevention activities. The SWPPP identifies points of contact and individuals that have a role in the facility's spill response.

Responsibilities of the Team
The team is the driving force behind the future development, implementation, maintenance and revision of the SWPPP. The team will perform annual evaluations to measure the effectiveness of the SWPPP. To ensure effectiveness, the team will document changes to facilities operations and determine if changes need to be made within the SWPPP. The Mine Manager is designated as the Pollution Prevention Coordinator. These responsibilities of the Pollution Prevention Coordinator include but are not limited to the following:

- Overall responsibility for SWPPP implementation;

- Signs documents and submits to DEQ;
- Approves SWPPP modifications and updates;
- Coordinates preparation, review and approval of the SWPPP;
- Prepares cost estimates of implementation of plan for BMPs;
- Maintains updated records of spills;
- Conducts or contracts annual inspection and clarification of dry weather discharges from outfalls;
- Conducts or contracts periodic inspections;
- Updates the Standard Operating Procedures;
- Coordinates the management and disposal of hazardous materials; and
- Develops appropriate training program.

Team members are selected by the Pollution Prevention Coordinator. Their responsibilities include but are not limited to the following:

- Responsible for the implementation of the SWPPP;
- Attend annual Storm Water Pollution Prevention training;
- Ensure personnel receive annual training;
- Review the SWPPP annually; and
- Notify Team Leader of any significant changes.

PPT Team Activation
To activate the PPT, the Pollution Prevention Coordinator will notify all team members of their duties and responsibilities. The team members will be trained and able to perform all assigned duties.

PPT Members include:

- Eric Stone – Mine Manager (Pollution Prevention Coordinator)
- Keith Holt – Environmental, Health & Safety Coordinator (Member)
- Kendall Adams – Foreman (Member)

1.7 Contact List and Phone Numbers

The Facility Information page in the front of this document provide a complete list of contacts and their phone numbers for use in the event of a spill.

2.0 POLLUTANT DISCHARGE DETECTION

2.1 Potential Equipment Failure

Potential causes of spillage at the facility include:

- Leaking outer wall or secondary containment structure of container;
- Overfill of containers; or
- Leak during fuel transfer operations.

2.2 Direction of Flow

Drainage patterns for the facility are indicated on **Figure 2**. The local topography is characterized by steep-sided hills and narrow drainage valleys. A brief description of the facility's outfalls is as follows:

- Storm water runoff from the main material stockpiles and building structures flow overland to the east into drainage swales and ditches, which direct the flow to be discharged in Wreck Island Creek via Outfall #2 and Outfall #3.
- Storm water runoff that has accumulated in the pit sump pond is pumped via aboveground piping (a 6" line enlarging to 12" line) to a valve situated at the top of wall along the access road. Under normal conditions, 25% of this flow is discharged to Wreck Island Creek at Outfall #5. 75% of this flow is directed to Water Storage Tank 1.
- Overflow from Water Storage Tank 1 flows via gravity to Water Storage Tank 2. Overflow from Water Storage Tank 2 discharges to Wreck Island Creek via two 4" lines at Outfall #4. During heavy rain event, water can be directed back to Wreck Island Creek at Outfall #5.
- 100% of water from the Creek Infiltration Holding Tank is pumped back into Wreck Island Creek at Outfall #1.

2.3 Baseline Best Management Practices (BMPs) Identification

Best Management Practices (BMPs) are measures used to prevent or reduce the potential for pollution from any type of activity. BMPs are a broad class of measures and include processes, procedures, schedules of activities, prohibitions on practices, and other management practices to prevent or reduce the potential for pollution of storm water runoff. The baseline BMPs that will be implemented are described below.

- Preventive Maintenance;
- Monthly Inspections;
- Sediment and Erosion Control;
- Management of Runoff;
- Good Housekeeping; and
- Employee Training.

2.3.1 Preventive Maintenance

Preventive maintenance involves the regular inspection and testing of equipment and the storm water management system. These inspections will identify conditions such as cracks or slow leaks, or other conditions which could cause breakdowns or failures resulting in the potential discharge of pollutants to storm drains and/or surface waters. The preventive maintenance program at the facility will include the following:

- Maintaining an inventory of each facility/system/equipment that, upon failure, could result in leaks or spills of potential pollutants
- Conducting periodic inspections of equipment that could results in leaks or spills to be documented in a checklist report listing each facility/system/equipment inspected and any deficiencies noted

2.3.2 Quarterly Facility Inspections

Routine inspections of the facility will be performed on a quarterly basis to ensure that all SWPPP elements are in place and working properly as well satisfying the facility's preventative maintenance routine inspections discussed above. These inspections are performed by a member of the PPT. Areas that will be inspected include:

- Equipment and facilities;
- Material storage piles; and
- Material handling areas (loading and unloading areas).

The routine facility inspections will also include general visual observations of the storm water drainage systems. A list of storm water drainage system observations to be made during the inspection as follows:

1. Inspection of grassed swales and ditches for garbage, debris, or eroded areas. Remove garbage and debris as necessary. Seed exposed areas as necessary.
2. Inspection of the concrete culvert discharge point for garbage, debris, vegetation, and/or eroded areas. Remove garbage, debris, and vegetation as necessary.

Inspection records will note when inspections were done, who conducted the inspection, what areas were inspected, what problems were found, steps taken to correct any problems and who has been notified. Records of the Quarterly Facility Inspection will be maintained in **Appendix A**.

2.3.3 Sediment and Erosion Control

The property will be inspected for general drainage discharge patterns that may be affecting erosion over time and for the buildup of sediment in the facility's storm water conveyance system.

2.3.4 Management of Runoff

Traditional management practices used to reduce pollutants in storm water runoff include:

- Maintaining grass and vegetative buffers surrounding facility;
- Maintaining erosion and sediment control devices; and
- Spill management methods and materials as covered by the facility SWPPP.

At this facility, runoff is managed principally via pipes, ditches, culverts and open outfalls that discharge into Wreck Island Creek. These conveyances will be inspected quarterly and after major storm events to ensure proper operation.

2.3.5 Good Housekeeping

Good housekeeping is the maintenance of a clean and orderly work environment that contributes to overall facility pollution control efforts. Occupational Safety and Health Administration (OSHA) includes housekeeping regulations in 29 CFR 1910, Sections 22(a), 141, and 176(c) that apply to industry, in general, and not specifically for toxic substances control. The principal elements in good housekeeping include proper storage of oil, prompt removal of spillage, floor maintenance, and unobstructed pathways and walkways. Housekeeping at this facility also includes all outside areas that are visually inspected for cleanliness by facility personnel.

Poor housekeeping can result in more waste being generated than necessary and an increased potential for storm water contamination. Poor housekeeping can also lead to accidents that might cause spills of significant materials. The following will be completed as part of Good Housekeeping procedures:

- Conducting a formal weekly inspection for housekeeping procedures and maintaining a log of such inspections (Quarterly Housekeeping and Facility Inspection Checklists are maintained in **Appendix A**);
- Conducting an annual inventory of chemical substances currently used, stored or produced onsite;
- Maintaining a current file of Safety Data Sheets (SDS) for chemical products used onsite; and
- Labeling of chemical containers in each building per OSHA, EPA, DOT or other applicable regulations.

2.3.6 Employee Training

Employee training is essential to effective implementation of the SWPPP. The purpose of a training program is to teach personnel at all levels of responsibility for the components and goals SWPPP. Effective training can include a variety of techniques to enhance participation and learning including:

- Lectures and visual aids;
- Written handouts;

- Video and slide presentations;
- Mock spill drills; and/or
- Employee handbooks.

Employee training must be provided for all employees who handle petroleum products, work in areas where industrial materials or activities are exposed to storm water, and who are responsible for implementing activities identified in the SWPPP.

Training documentation (sign-in sheets) are provided in **Appendix B** and is maintained in the Mine Manager's office.

2.4 Annual Comprehensive Site Compliance Evaluation

At least once per year, PPT members must conduct site compliance evaluations, which are comprehensive inspections. The team members involved should be familiar with facility operations and SWPPP goals. The compliance evaluations include:

- Reviewing the SWPPP and listing items, which are part of material handling and storage areas, covered by the plan.
- Reviewing facility operations to determine if new areas or modifications to plant operations have occurred that should be incorporated into the SWPPP.
- Inspecting storm water drainage areas for evidence of pollutants entering the drainage system.
- Evaluating the effectiveness of storm water pollution prevention measures to reduce pollutant loadings and whether additional measures are needed.
- Observe structural measures, sediment controls and other BMPs to ensure proper operation.
- Inspect equipment needed to implement the plan, such as spill response equipment.
- Revising the SWPPP as necessary within two weeks if it is determined that potential pollutant sources and pollution prevention control measures are not adequate.
- Implementing necessary changes in a timely manner but in no case more than twelve weeks after the evaluation.

The Annual Site Compliance Evaluation (ASCE) report form summarizing the evaluation, personnel making the evaluation, the date of the evaluation, major observations related to the implementation of the VPDES General Permit, and actions taken is presented in **Appendix A**. The ASCE shall identify incidents of non-compliance, if any. Where a report does not identify any incidents of non-compliance, the ASCE shall contain a certification that the facility is in compliance with the SWPPP and related VPDES General Permit. The report shall be signed by the Mine Manager.

3.0 STORM WATER MONITORING PROGRAM

3.1 General Information

VDEQ has issued the Rockydale Quarries Corporation a VPDES General Permit for Storm Water Discharge Associated with Industrial Activity (VAG840046) to operate the Appomattox Lime Company. A copy of the permit is presented in **Appendix C**.

3.2 Storm Water Drainage/Outfall

Drainage patterns for the facility are indicated on **Figure 2**. The local topography is characterized by steep-sided hills and narrow drainage valleys. A brief description of the facility's outfalls is as follows:

- Storm water runoff from the main material stockpiles and building structures flow overland to the east into drainage swales and ditches, which direct the flow to be discharged in Wreck Island Creed via Outfall #2 and Outfall #3.
- Storm water runoff that has accumulated in the pit sump pond is pumped via aboveground piping (a 6" line enlarging to 12" line) to a valve situated at the top of wall along the access road. Under normal conditions, 25% of this flow is discharged to Wreck Island Creek at Outfall #5. 75% of this flow is directed to Water Storage Tank 1.
- Overflow from Water Storage Tank 1 flows via gravity to Water Storage Tank 2. Overflow from Water Storage Tank 2 discharges to Wreck Island Creek via two 4" lines at Outfall #4. During heavy rain event, water can be directed back to Wreck Island Creek at Outfall #5.
- 100% of water from the Creek Infiltration Holding Tank is pumped back into Wreck Island Creek at Outfall #1.

3.3 Mining Industry Specific Conditions

The VPDES General Permit does requires the Appomattox Lime Company to conduct analytical monitoring of their storm water discharge associated with the mining industry. The facility is also required to conduct quarterly visual examinations of their storm water discharges for pollutants to determine the presence of unauthorized discharges.

3.4 Quarterly Visual Monitoring

Each of the five outfalls must be visually checked four times per year at least once during each of the following intervals:

1. January 1 through March 31
2. April 1 through June 30
3. July 1 through September 30
4. October 1 through December 31

Forms for recording the inspections are contained in **Appendix C**. Table 70-4 of the General Permit explains which reports are required to be submitted to the VDEQ. In the case of Quarterly Visual Monitoring, the reports DO NOT need to be submitted unless requested, but all reports must be maintained in the SWPPP.

3.5 Storm Water Monitoring Requirements

Appomattox Lime Company will conduct effluent monitoring of each of storm water discharge associated with nonmetallic mineral mining. Monitoring must be performed from July 2014 through June 2019 during the following frequencies:

- Outfall #001 – 1/3 Months
- Outfall #002 – 1/Year
- Outfall #003 – 1/Year
- Outfall #004 – 1/3 Months
- Outfall #005 – 1/3 Months

Appomattox Lime Company will monitor by laboratory analyses the following parameters with their corresponding limitation:

Effluent Monitoring Parameter	Limitation	Units
Flow	No Limits	MGD
pH	6.0 Minimum/9.0 Maximum	SU
Total Suspended Solids (TSS)	60 mg/l Maximum	MG/L

For each storm event sampled, the following storm parameters will be recorded and reported:

- Date, exact place, and time of sampling;
- The individual(s) who performed the sampling;
- Duration of storm event (in hours);
- Total precipitation received during storm event;
- Time duration since last measurable storm event (greater than 0.1 inch rainfall); and
- Estimate of total runoff volume (in gallons).

A minimum of one grab sample will be collected from the outfall and must be taken during the first 30 minutes of the discharge. If corrective actions are required to address a deficiency in the handling of storm water runoff, this SWPPP must be updated to indicate the reason for the corrective action, and the action taken.

Part 1.B Special Conditions of the General Permit references specific discharges which are permissible under the General Permit. This section also references activities which are prohibited.

3.5.1 Flow Measurement

The Appomattox Lime Company measures flow using a sized container (i.e. 5-gallon bucket) and a timer. The units of measurement must be calculated and reported as million gallons per day (MGD).

3.5.2 pH Measurement

The field measurement of pH will be performed using the method of analysis prescribed in the 21st Edition of Standard Methods – 4500-H*B-2000. The following guidelines must be followed:

- Verify the pH thermistor annually against a certified reference thermometer over a range of temperatures that bracket the expected range of measurement;
- Calibrate the pH meter using three buffers (pH of 4, 7, and 10) at the same temperature on each day of use;
- Maintain a stock of pH buffer solutions within manufacturer expiration date and batteries sufficient to operate the meter available at all times for pH analysis.
- Conduct a successful completed initial demonstration of capability (IDC) of the pH meter that will be used for pH analysis by each analyst that analyzes pH for VDPES monitoring. A copy of the IDC form and instructions are provided in Appendix B. 4 replicates of a secondary source standard (for example testing 4 samples of a different pH 7 buffer than the one used to calibrate the meter). Completed IDC forms shall be kept in Appendix B;
- Analyze the sample within 15 minutes of collection; and
- Clearly document the specific pH sample analysis time, the meter calibration time, and the analyst initials. Sampling information will be kept in **Appendix C**.

3.6 Sampling Waiver

When Appomattox Lime Company is unable to collect a sample within a specific period due to adverse climatic conditions, Appomattox Lime Company shall collect a substitute sample from a separate qualifying event in the next period and submit this data along with the data for the routine sampling in that period.

3.7 Reporting Monitoring Results

Appomattox Lime Company is required to submit effluent monitoring results to the DEQ. One signed Discharge Monitoring Report (DMR) form must be completed and submitted to the DEQ. The DMR forms will be submitted to the DEQ's regional office no later than the 10th day of April, July, October, and January. Copies of the completed DMR forms submitted to the DEQ will be maintained on-site with the Plan in **Appendix C**.

3.8 Reports of Noncompliance

Appomattox Lime Company will report to the DEQ any noncompliance that may adversely affect state waters or many endanger public health.

3.9 Non-Storm Water Discharges

There are no known non-storm water discharges into the storm sewer system at the facility. The Appomattox Lime Company performs or subcontracts monitoring of its discharge annually during a dry period of no rainfall. Conditions indicative of a non-storm water discharge such as color, floating or suspended material, a petroleum sheen, foam, etc., suggesting that the source of the standing water was surface or ground water have not been observed during the inspections.

The Appomattox Lime Company will continue to perform or subcontract the inspections to ensure compliance with the non-storm water discharge requirement on an annual basis. A "Non-Storm Water Discharge Assessment and Certification" form, included in **Appendix A**, will be completed to document this activity.

FIGURES

APPENDIX A

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION
QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLISTS
NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION

APPOMATTOX LIME COMPANY
ANNUAL SITE COMPLIANCE EVALUATION (VAG840046)

DATE:
EVALUATORS:

REVIEW OF SWPPP & SWP:

REVIEW OF FACILIT OPERATIONS (TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING):

Industrial materials, residue or trash that may have or could come into contact with stormwater. Leaks or spills that have occurred within the past three years. Off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site. Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas. Review of training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs

INSPECTION OF POLLUTANT SOURCES AND STORMWATER OUTFALLS (TO INCLUDE, BUT NOT LIMITED TO, THE FOLLOWING):

Evidence of, or the potential for, pollutants entering the drainage system
Evidence of pollutants discharging to surface waters at all facility outfalls, and the condition of and around the outfall

EVALUATION OF BMP EFFECTIVENSS:

ANNUAL OUTFALL EVALUATION FOR UNAUTHORIZED DISCHARGES

SUMMARY:

EVALUATORS SIGNATURES:

I certify under penalty of law that the preceding document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Print Name	Title	Date

Signature	Print Name	Title	Date

APPOMATTOX LIME COMPANY
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLIST

QUARTER:
DATE:
AREA INSPECTED: MATERIAL STORAGE AREAS
INSPECTOR:

1. APPEARANCE OF SURROUNDING AREAS:

2. CONDITION OF EROSION CONTROLS (IF PRESENT):

EVIDENCE OF NEW EROSION OR DETERIORATION:

4. CHECK CONDITION OF ANY STORM WATER CONVEYANCE STRUCTURES (CULVERTS, PIPES, RIPRAP):

*LIST ANY SPECIFIC PROBLEMS NOTED DURING THE INSPECTION AND ACTION

APPOMATTOX LIME COMPANY
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLIST

QUARTER:
DATE:
AREA INSPECTED: MAINTENANCE SHOP
INSPECTOR:

1. APPEARANCE OF AREA (CLEAN, ORDERLY):

2. CHECK FOR ADEQUATE SPACE IN WORK AREAS TO MINIMIZE SPILLS:

3. CHECK AREAS WHERE ANY CHEMICALS (INCLUDING FUEL, LUBES, AND OIL) ARE STORED FOR CONTAINER INTEGRITY AND CONDITION OF AREA WHERE STORED (I.E, FLOOR, SHELVES, COUNTERTOP):

4. ENSURE WALKWAY IS CLEAR AND THAT MATERIALS ARE READILY ACCESSIBLE:

*LIST ANY SPECIFIC PROBLEMS NOTED DURING THE INSPECTION AND ACTION TAKEN TO CORRECT BEFORE NEXT INSPECTION:

APPOMATTOX LIME COMPANY
STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
QUARTERLY HOUSEKEEPING AND FACILITY INSPECTION CHECKLIST

QUARTER:
DATE:
AREA INSPECTED: ABOVEGROUND STORAGE TANKS
INSPECTOR:

1. CONDITION OF TANK:

2. CONDITION OF TRANSFER PIPING:

CONDITION OF CONTAINMENT PAD:

4. INVENTORY O.K. ON SPILL KIT SUPPLIES:

*LIST ANY SPECIFIC PROBLEMS NOTED DURING THE INSPECTION AND ACTION TAKEN TO CORRECT BEFORE NEXT INSPECTION:

NON-STORM WATER DISCHARGE
ASSESSMENT AND CERTIFICATION

Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the Presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation

CERTIFICATION

I, _____, (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (type or print)	B. Area Code and Telephone No.
C. Signature	D. Date Signed

APPENDIX B

TRAINING DOCUMENTATION

APPOMATTOX LIME COMPANY
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
ANNUAL STAFF TRAINING/PLAN REVIEW

DATE:

TRAINER:

ATTENDEES: (SWPPP Team Members; AWWTP Personnel)

SUBJECT: Annual review of the SWPPP to information AWWTP staff of their responsibilities as well as the goals of the Plan. Training addressed each component of the Plan, including how, why, and when tasks are to be implements. Session also defined the elements of the SPCC Plan, staff responsibilities, and how to initiate implementation.

TRAINING MATERIALS:
1. SWPPP WRITTEN PROGRAM
2. CHECKLISTS AND FORMS
2, SWPPP TRAINING SESSSION RECAP NOTES

APPENDIX C

VPDES GENERAL PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY (VAG840046)

DISCHARGE MONITORING REPORT (DMR) FORMS

QUARTERLY RAINFALL TRACKING

QUARTERLY VISUAL OUTFALL MONITORING FORMS

QUARTERLY RAINFALL TRACKING

lity Name:	Appomattox Lime Company	VPDES Permit #:	VAG840046

Calendar Year:	1st Qtr:	2nd Qtr:	3rd Qtr:	4th Qtr:

Quarterly stormwater outfall checks completed?:
(If still pending, note why samples weren't obtained/conditions not met for rain event)
*Separate inspection/sampling forms must be completed

Note when SPCC AST Inspections are performed (Required at greater than or equal to 1" rain event)

*Separate inspection/sampling forms must be completed

Date of Rain Event	Rain Event Amount of Precipitation	Stormwater Outfall Sampling/Inspections	SPCC Diesel AST Sampling Inspections
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
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27			
28			

QUARTERLY VISUAL OUTFALL MONITORING

OUTFALL #	001

Facility Name:	Appomattox Lime Company	VPDES Permit #:	VAG840046

Calendar Year:	1st Qtr:	2nd Qtr:	3rd Qtr:	4th Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time): *(Must be during daylight hours)*

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff? ☐ Yes ☐ No

Amount on Rainfall: Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter? ☐ **Yes***

**Note:* *If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

Note: For the questions below include probable sources/causes of stormwater pollution observed.

1.	Color	☐ None	☐ Light Tan	☐ Light Brown	☐ Brown	☐ Other (describe)
2.	Odor	☐ None	☐ Earthy	☐ Gas/Oil	☐ Chemical	☐ Other (describe)
3.	Clarity	☐ Clear	☐ Almost Clear	☐ Cloudy	☐ Very Cloudy	☐ Other (describe)

4. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

5. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

6. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)? ☐ Yes ☐ No

7. Was any **Foam** present (if so, describe color, amount/extent)? ☐ Yes ☐ No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)? ☐ Yes ☐ No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)? ☐ Yes ☐ No

I certify under penalty of law that the preceding document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Print Name	Title	Date

QUARTERLY VISUAL OUTFALL MONITORING

OUTFALL #	002

Facility Name:	Appomattox Lime Company	VPDES Permit #:	VAG840046

Calendar Year:	1st Qtr:	2nd Qtr:	3rd Qtr:	4th Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time): *(Must be during daylight hours)*

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff? ☐ Yes ☐ No

Amount on Rainfall: Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter? ☐ **Yes***

**Note:* *If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

Note: For the questions below include probable sources/causes of stormwater pollution observed.

8. Color	☐ None	☐ Light Tan	☐ Light Brown	☐ Brown	☐ Other (describe)
9. Odor	☐ None	☐ Earthy	☐ Gas/Oil	☐ Chemical	☐ Other (describe)
10. Clarity	☐ Clear	☐ Almost Clear	☐ Cloudy	☐ Very Cloudy	☐ Other (describe)

11. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

12. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

13. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)? ☐ Yes ☐ No

14. Was any **Foam** present (if so, describe color, amount/extent)? ☐ Yes ☐ No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)? ☐ Yes ☐ No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)? ☐ Yes ☐ No

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Signature	Print Name	Title	Date

QUARTERLY VISUAL OUTFALL MONITORING

OUTFALL #	003

Facility Name:	Appomattox Lime Company	VPDES Permit #:	VAG840046

Calendar Year:	1st Qtr:	2nd Qtr:	3rd Qtr:	4th Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time): *(Must be during daylight hours)*

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff? ☐ Yes ☐ No

Amount on Rainfall: Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter? ☐ **Yes***

**Note:* *If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

Note: For the questions below include probable sources/causes of stormwater pollution observed.

15. Color	☐ None	☐ Light Tan	☐ Light Brown	☐ Brown	☐ Other (describe)
16. Odor	☐ None	☐ Earthy	☐ Gas/Oil	☐ Chemical	☐ Other (describe)
17. Clarity	☐ Clear	☐ Almost Clear	☐ Cloudy	☐ Very Cloudy	☐ Other (describe)

18. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

19. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

20. Were **Suspended Solids** present (i.e. solids that do <u>not</u> settle within 30-60 minutes)? ☐ Yes ☐ No

21. Was any **Foam** present (if so, describe color, amount/extent)? ☐ Yes ☐ No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)? ☐ Yes ☐ No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)? ☐ Yes ☐ No

I certify under penalty of law that the preceding document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Print Name	Title	Date

QUARTERLY OUTFALL MONITORING

OUTFALL #	004

Facility Name:	Appomattox Lime Company	VPDES Permit #:	VAG840046

Calendar Year:	1st Qtr:	2nd Qtr:	3rd Qtr:	4th Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time): *(Must be during daylight hours)*

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff? ☐ Yes ☐ No

Amount on Rainfall: Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter? ☐ **Yes***

**Note:* *If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

Note: For the questions below include probable sources/causes of stormwater pollution observed.

22. Color	☐ None	☐ Light Tan	☐ Light Brown	☐ Brown	☐ Other (describe)
23. Odor	☐ None	☐ Earthy	☐ Gas/Oil	☐ Chemical	☐ Other (describe)
24. Clarity	☐ Clear	☐ Almost Clear	☐ Cloudy	☐ Very Cloudy	☐ Other (describe)

25. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

26. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

27. Were **Suspended Solids** present (i.e. solids that do not settle within 30-60 minutes)? ☐ Yes ☐ No

28. Was any **Foam** present (if so, describe color, amount/extent)? ☐ Yes ☐ No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)? ☐ Yes ☐ No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)? ☐ Yes ☐ No

I certify under penalty of law that the preceding document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true and accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Print Name	Title	Date

QUARTERLY OUTFALL MONITORING

OUTFALL #	005

Facility Name:	Appomattox Lime Company	VPDES Permit #:	VAG840046

Calendar Year:	1st Qtr:	2nd Qtr:	3rd Qtr:	4th Qtr:

Name of Individual conducting Visual Monitoring:

Monitoring Date/Time (use am/pm or 24-hr time): *(Must be during daylight hours)*

A. **Qualifying Runoff Event** met (i.e. storm event greater than 0.1 inches and at least 72 hours from the last qualifying runoff event, daylight hours, and within 30 minutes of first runoff? ☐ Yes ☐ No

Amount on Rainfall: Inches

Describe the storm event (e.g. light rain, heavy rain, snow/ice melt):

B. Was there **no qualifying storm event** resulting in runoff during this quarter? ☐ **Yes***

**Note:* *If YES, attach documentation (i.e. on site rainfall records) and sign the Certification State below.*

Note: For the questions below include probable sources/causes of stormwater pollution observed.

29. Color	☐ None	☐ Light Tan	☐ Light Brown	☐ Brown	☐ Other (describe)
30. Odor	☐ None	☐ Earthy	☐ Gas/Oil	☐ Chemical	☐ Other (describe)
31. Clarity	☐ Clear	☐ Almost Clear	☐ Cloudy	☐ Very Cloudy	☐ Other (describe)

32. Were **Floating Solids** present? If so, describe (e.g. bark leaves, grass, trash/litter, other)

33. Were **Settled Solids** present (i.e. solids that settle within 30-60 minutes of sampling)? If so, describe (e.g. thin layer on bottom of quart glass container, 50% of quart glass container after 30 minutes and 25% of quart glass container after 60 minutes)

34. Were **Suspended Solids** present (i.e. solids that do <u>not</u> settle within 30-60 minutes)? ☐ Yes ☐ No

35. Was any **Foam** present (if so, describe color, amount/extent)? ☐ Yes ☐ No

8. Was an **Oil Sheen** present (if, so describe consistency, color, amount/ extent)? ☐ Yes ☐ No

9. Were any other **Indicators** of stormwater pollution observed (if so, describe)? ☐ Yes ☐ No

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Signature	Print Name	Title	Date