

Cambridge Ready Mix Concrete Facility
2757 Gypsy Hill Road, Cambridge, MD 21613

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

In compliance with:

General Permit No. 10MM9824

National Pollution Discharge Elimination System (NPDES)

Prepared By:

Victor Vilece

Chaney Enterprises, LP

2410 Evergreen Road

Gambrills, MD 21054

Phone: 301-932-5087

Email: vvilece@chaneyenterprises.com

November 2016

TABLE OF CONTENTS

- I. *Introduction*
 - a. SWPPP Purpose
 - b. SWPPP Content

- II. *Facility Description*
 - a. Facility Location
 - b. Site Description
 - c. Site Activates
 - d. Existing Drainage and Discharge Conditions

- III. *Potential Storm Water Contaminations*
 - a. Material Inventory
 - b. Spill and Leak History
 - c. Potential Areas of Storm Water Contamination
 - d. Emergency Contact Information

- IV. *Storm Water Management (SWM) Control Measures*
 - a. Site Evaluation of Existing Control Measures
 - b. Implementation of Proposed SWM Control Measures

- V. *Facility Monitoring Plan*
 - a. Routine Inspections
 - b. *pH Watchdog Water Treatment System Monitoring*
 - c. SWPPP Updates and Amendments

- VI. *SWPPP Implementation Task Force*
 - a. SWPPP Coordinator
 - b. SWPPP Coordinator Responsibilities
 - c. SWPPP Implementation Task Force Team Members

- VII. *Compliance Requirements*
 - a. On-Site Record Retention
 - b. Employee Training
 - i. Annual Environmental Education Seminar
 - ii. pH Reduction System Training
 - c. Implementation Schedule
 - d. Annual SWPPP Compliance Assessment
 - e. Corporate Certification

List of Figures

Figure 1: General Vicinity Map

Figure 2: Facility Sketch of Existing Conditions

List of Tables

Table 1: Existing Storm Water Drainage and Discharge Points

Table 2: Material Inventory

Table 3: SWPPP Implementation Schedule

Table 4: SWM Control Measures Implementation Schedule

List of Appendices

Appendix A: Site Inspection Form

Appendix B: Emergency Contact Information

Appendix C: pH Log

Appendix D: Environmental Education Seminar Sign-In Sheet

Appendix E: Environmental Education Seminar Evaluation Form

Appendix F: SWPPP Compliance Assessment Form

Appendix G: SWPPP Modifications

I. Introduction

a. SWPPP Purpose

This Storm Water Pollution Prevention Plan (SWPPP) has been developed as requirement of the National Pollution Discharge Elimination System (NPDES) program for regulating storm water discharge from industrial facilities. Development, proper implementation, and dedicated monitoring of the SWPPP will allow the Cambridge Ready Mix Concrete Facility [herein known as the Cambridge facility for the purposes of this report] to control pollutants and comply with all established regulations. The primary purpose of this SWPPP is to:

- 1) Identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site,
- 2) Describe the practices that will be used to reduce pollutants in storm water discharges to assure compliance with the conditions of the Permit, and
- 3) Establish an implementation schedule to ensure that the proposed plan is properly implemented while monitoring the plan's effectiveness in meeting the design goals.

b. SWPPP Content

The following components are included in this SWPPP:

- Description of the facilities and existing conditions
- Description of potential storm water contaminations
- Description of measure to be taken and Best Management Practices (BMP's) to be implemented
- Description of the monitoring and inspection plan to be implemented
- Identification of a SWPPP coordinator, SWPPP team members and the responsibilities involved, and
- Description of the requirements for permit compliance.

II. Facility Description

a. Facility Location

The Cambridge facility is located at 2757 Gypsy Hill Road, Cambridge, Maryland 21613 and is within Dorchester County boundaries. The facility operates on a section of land within a mixed rural and farmland area off of Route 50. **Figure 1** is a general vicinity map of the area.

b. Site Description

The Cambridge facility is bordered by train tracks and woods to the north, while farmland borders the site to the south and east. The entrance and Church Creek Road are to the west. On-site structures include a batch office trailer, batch plant equipment, storage containers, washout basins/settlement basins, a recycled concrete storage area, vehicle parking areas and a fueling area. **Figure 2** is a facility sketch of existing conditions, illustrating pertinent on-site structures and includes approximate drainage zone locations, patterns of storm water drainage and locations of any discharge points.

c. *Site Activities*

Ready-mix concrete is produced within the facility. Waste concrete to be recycled is temporarily stored on-site until distributed for crushing. The Cambridge facility is classified as a code 3273 under the 1987 Standard Industrial Classification (SIC) guild lines and as code 327320 under the 2002 North American Industry Classification System (NAICS). Normal operating hours are 6am to 4pm and a total of five full-time employees are on schedule with approximately four trucks operating out of this facility on a regular basis.

d. *Existing Drainage and Discharge Conditions*

On-site drainage is controlled through a tiered settling basin and a pH treatment system is utilized to monitor and treat collected water. The majority of site drainage flows west to east. Some water is pumped to ensure it reaches the treatment basins. Some water is recycled and used for futures batching or washing purposes. Truck cleaning and washout occurs in the southeastern portion of the site. After releasing any excess concrete into the designated collection area, trucks release drum washout into a primary basin. Upon initial solid settling, this water feeds into a second basin and finally a third basin for final settling. This basin has a large volume holding capacity and the pH levels are monitored and treated here by a treatment system before discharging (**DP-1**). **Figure 2** is a facility sketch of existing conditions that include zone locations, patterns of storm water drainage and locations of any discharge. Additional information about each drainage zone and discharge point can be found in **Table 1**.

Discharge Point 1 (DP-1) is located in the southeastern corner of the site. A pH WatchDog is also located here to ensure treatment of water before discharge. The outfall is discharged to the adjacent field and eventually reaches little Blackwater River via a network of small tributaries and drainages.

Additional information about each drainage zone and discharge point can be found in **Table 1**.

III. Potential Storm Water Contaminants

a. *Material Inventory*

Table 2 identifies materials that are used, stored, or produced on-site that may contribute to storm water pollution. A physical description and the probable storm water pollutants are included. This SWPPP is focused on limiting the pollution from these sources.

b. *Spill and Leak History*

There are no records of any spills or leaks of any material in this facility within the past three years.

c. *Potential Areas for Storm Water Contamination*

The following core areas with potential for storm water contamination were considered in the development of this SWPPP:

- Truck Loading Area: This includes a loading system (hopper, conveyor and mixer) and is located adjacent to the facility office. Contamination may occur through leaking trucks and equipment or spills from improper loading.
- Fueling Station: This area includes a fueling station in the western portion of the property. Contamination may occur in this area through improper fueling or leaking trucks and equipment.
- Truck Washout Area: Contamination may occur in these areas through an increase of pH in discharge waters and potential for increase sediment discharge.
- Storage Containers: These sea containers serve as storage areas for materials such as admixtures and general site materials. Contamination may occur through fluid leaks from stored materials.
- Stockpile Materials: Several mounds of stockpile material (sand, stone, etc.) are located on-site and stored in bins. Contamination may occur from sediment runoff.

Table 1 includes site-specific information regarding storm water pollution potential from these areas.

d. Emergency Contact Information

Any chemical or oil spill will be recorded on standard inspection forms (**Appendix A**). In the event of an emergency spill, the Maryland Department of the Environment 24 hr Emergency Spill Hotline (410-974-3551) and the National Response Center at (1-800-424-8802) will be contacted. In the event of a spill situation, a standard spill response procedure will be followed (**Appendix B**). This procedure and emergency contact information will be visible and readily available in the site office

IV. Storm Water Management (SWM) Control Measures

This section will detail existing SWM control measures and proposed controls that will be implemented to comply with permit requirements. All Best Management Practices (BMPs) used as control measures in this project were selected to meet or exceed EPA and local requirements. **Table 3** contains specific information and a schedule for target implementation of these control measures. **Figure 2** is a facility sketch of proposed control measures depicting approximate locations of implementation.

a. Site Evaluation of Existing Control Measures

The following is a list of effective control measures that are currently in place at the Cambridge Facility.

- Washout/Settling Basins: A washout basin system is on-site to collect any material and water that can be reused. Settling of solids occurs in a three tiered basin in the southeast corner of the site. pH treatment takes place in the third/final tier before discharge is allowed.
- Concrete Blocks: A series of concrete blocks are situated throughout the site to direct any runoff to appropriate treatment areas, as well to contain sand and aggregate.
- Water Pumping Diversion: Water near the batch plant is pumped along the perimeter and redirected to the rear portion of the site for treatment. This ensures no water leaves the property at unpermitted points.
- pH Watchdog Water Treatment System: A pH water treatment system monitors the pH level of collected water and utilizes a non-hazardous, granular chemical [sodium

bisulfate] to lower the high pH of collected water. There is one (1) functioning system on-site that treats water prior to discharge at DP-1.

b. Implementation of Proposed SWM Control Measures

The following is a list of appropriate control measures that will be implemented at the Cambridge Facility:

- Fueling Station: The fueling station will be inspected for potential leak hazards and changes will be implemented if necessary. All trucks that use the fueling station are equipped with spill kits in the event of a spill.
- Washout/Settling Basins: A three-tiered, concrete water collection structure has been installed in the southeastern corner of the property. As trucks release washout water into the upper basin, larger sediment will settle out, flow to the next basin, and then into the final basin where the pH will be treated. The pH level of the water will be constantly monitored and treated through a pH WatchDog. Some of this treated water will be recycled and used for truck cleaning. The basins will be cleaned out with a frontend loader on a regular basis to ensure they function properly.
- pH WatchDog: A pH WatchDog has been installed to monitor and treat discharge water with high pH levels. High pH water will be contained and neutralized by way of a non-hazardous material (sodium Bisulfate) that will bring the pH to within compliant limits.
- Material Storage: Any fluid canisters (truck oil, grease) housed on-site will be kept out of contact with storm water and will remain covered when not in use. Any partially used, bagged material will be transferred to a sealable container and properly labeled. Items such as brooms, dust pans, plastic gloves, kitty litter and extra sealable containers will be on-site at all times.
- Equipment Inspections: Vehicles and equipment will be inspected for fluid leaks and any other potential pollutants to storm water. All vehicles and equipment will receive regular preventative maintenance to reduce the chance of fluid leakage.
- General Housekeeping: General good housekeeping measures will be implemented into a routine schedule to promote site compliance.
- Air Pollution: Dust suppression methods and regular watering will aid in minimizing air pollution that could originate from the site.

V. Facility Monitoring Plan

a. Routine Inspections

Routine inspections will be conducted throughout the site to decrease the likelihood of a potential pollution situation. The water treatment basins, pH Watchdog Water Treatment System, storage areas, fueling station, and all other pollution prevention implementations will be inspected for effectiveness. As directed by the SWPPP Coordinator, an Environmental Evaluation team has been assigned to conduct visual observations no less than one time each month (in some months more). Inspection forms will be completed, signed by the plant manager and kept in the on-site file. A sample inspection form can be found in **Appendix A**.

b. pH Watchdog Water Treatment System Monitoring

The pH Watchdog Water Treatment System located on site will be inspected on a daily basis. The Plant manager or approved on-site personnel will ensure that the unit is turned on and is

functioning correctly. The digital pH reading that is displayed will be recorded in a daily pH log. Acid will be added to the system as needed. A sample pH log can be found in **Appendix C**.

c. SWPPP Updates and Amendments

Any changes to operating conditions of the Cambridge Facility that require modification of existing BMPs or implementation of new BMPs will be recorded in the on-site file for insertion into an updated SWPPP and submitted with the annual compliance assessment (discussed in Section VII. D). This SWPPP shall be amended to include any change in design, construction, operation, or maintenance of the facility that has a significant effect on the potential for the discharge of pollutants to surface waters and that has not been addressed in the normal implementation of the SWPPP. This SWPPP shall also be updated whenever it is found to be ineffective in meeting the requirements of the NPDES Permit and any other applicable regulatory guidelines. In the event that the Maryland Department of the Environment (MDE) notifies the SWPPP Coordinator that the SWPPP does not meet one or more of the provisions of the NPDES Permit or any other applicable regulatory guidelines, changes will be made within a timeframe approved by the MDE.

VI. SWPPP Implementation Task Force

a. SWPPP Coordinator

The SWPPP Coordinator for the Cambridge Facility is Victor Vilece, 301-861-6094.

b. SWPPP Coordinator Responsibilities

The SWPPP Coordinator will be responsible for the following:

- Manage the SWPPP team in the implementation of the SWPPP plan
- Assign inspection duties
- Oversee employee training
- Ensure regulatory compliance of site activities
- Measure overall effectiveness of SWPP implementation
- Address any site operation changes with appropriate SWPPP modifications

c. SWPPP Implementation Task Force Team Members

The following team members will assist the SWPPP Coordinator in all aspects of the SWPPP implementation:

- | | | |
|-----------------|-----------------------------|--------------|
| • Jeff Slagle | Concrete Operations Manager | 301-399-2224 |
| • Chris McCoy | Safety Director | 240-299-7172 |
| • Rick Bischoff | Plant Manager | 410-749-8250 |
| • Amanda Page | Assistant Project Manager | 301-932-5412 |
| • Nayeli Rios | Safety Assistant | 301-932-5055 |

VII. Compliance Requirements

a. On-site Record Retention

A copy of the most recently updated version of this SWPPP will be retained in the onsite office. Copies of completed inspection forms will also be kept on-site for reference purposes. Additionally, all employee training records and certifications shall be made readily available.

b. *Employee Training*

An annual environmental education seminar will be incorporated into ongoing employee training protocol to educate employees about the pollution prevention issues relating to this SWPPP. Employees will be introduced to the requirements of the SWPPP and will be instructed on how to monitor the implemented BMPs for maximum effectiveness. A site walk through will be conducted to illustrate proper good-housekeeping measures in action and to identify what employees should look for to reduce pollution potential. Hands-on demonstrations will be used as a training tool to inform employees of procedures to follow when responding to a spill situation. **Appendix D** contains a copy of the sign-in sheet that will be used at the seminar to record attendees. Prior to the seminar, the SWPPP Coordinator (or designated SWPPP team member) will evaluate the environmental education program to verify its effectiveness, implement any appropriate changes and complete an evaluation form. A sample evaluation form can be found in **Appendix E**.

c. *Implementation Schedule*

A proposed schedule for the implementation of this SWPPP can be found in **Table 3**. An implementation schedule for E&S Controls and BMPs is shown in **Table 4**. These schedules will be modified if there is any change to the sequence or expected completion dates and updated schedules will be inserted into the SWPPP file.

d. *Annual SWPPP Compliance Assessment*

A designated SWPPP team member will conduct an annual compliance assessment to ensure that the facility is complying with all requirements detailed in this SWPPP. All BMPs and E&S controls said to be in place will be inspected, adherence to the implementation schedule will be verified and a confirmation of an active employee training program will be made. An assessment report will be completed and a copy of the assessment will be kept on record. A sample assessment form can be found in **Appendix F**.

e. *Corporate 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 gathered and evaluated 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."


Name Kyle Murray

11/22/16
Date

Chavez Enterprises, LP
Company

Land Project Manager
Title

FIGURE 1
GENERAL VICINTY MAP



FIGURE 2

FACILITY SKETCH OF EXISITING CONDITIONS

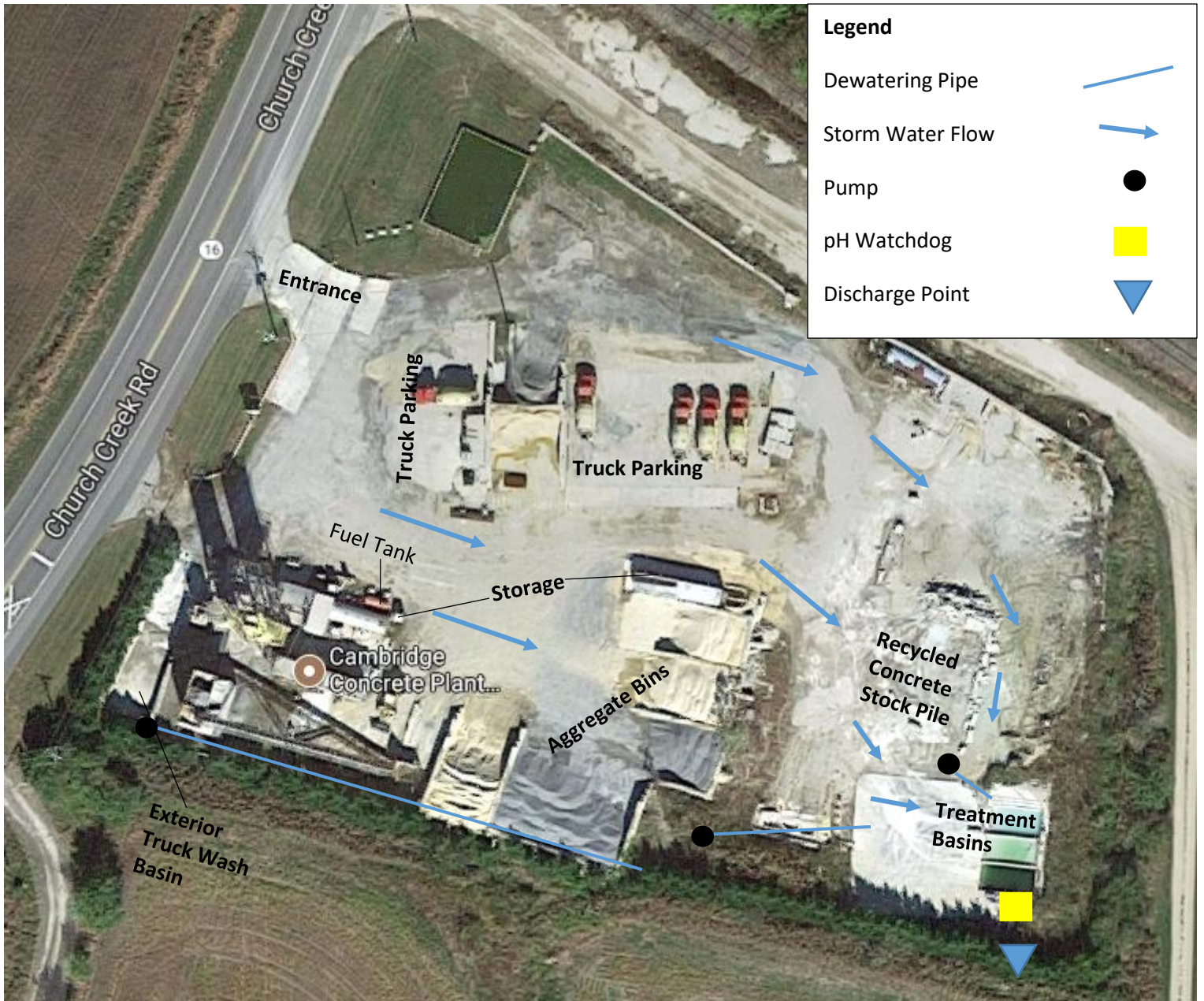


Table 1

EXISTING STORM WATER DRAINAGE AND DISCHARGE POINTS

DRAINAGE ZONE/ DISCHARGE POINTS	STORM WATER DRAINAGE DESCRIPTION	POTENTIAL POLLUTION	POTENTIAL PROBLEMS
<i>DZ-1</i>	DZ-1 covers the northern half of the site. It includes the Fuel Station, Storage Trailers, pH Watchdog, Oil Tank, Batch Plant, and the only discharge point (DP-1). Water flows from west to east, a curb directs water around basin 3 into a collection basin. From there it flows into the swale then into basin 3 for treatment before being discharged.	Diesel Fuel, Hydraulic Oil/Fluids, Sediment	Diesel fuel/fluids may leak from trucks, equipment, and the fueling station. Improper loading may result in sediment discharge.
<i>DZ-2</i>	DZ-2 covers the southern half of the site. It includes the storage garage, parking area, basins 1 and 2, and the recycled concrete storage area. Water flows from west to east and is directed into basins 1 and 2 for settling. From the basins water flows into the concrete swale running along the eastern border of the site. Stone check dams help remove sediment before the water reaches basin 3 for pH treatment.	Diesel Fuel, Hydraulic Oil/Fluids, Sediment, High pH Water	Diesel fuel/fluids may leak from trucks and equipment. Sediment can build up in check dams and basins preventing proper settling. Drum wash water from trucks washing out at basins 1 and 2 is a potential for high pH discharge.
<i>DP-1</i>	The lone discharge point is located in the northeastern corner of the site in basin 3. Water from the site is treated for sediments before reaching basin 3 and treated for pH before being discharged.	Diesel Fuel, Hydraulic Oil/Fluids, Propane, Sediment, High pH Water	Overflow from the loading area may cause release of excess sediment. Trucks release washout water that could potentially be discharged before being treated.

Table 2

MATERIAL INVENTORY

TRADE NAME MATERIAL	PHYSICAL DESCRIPTION	STORM WATER POLLUTANTS
<i>Cleaning Solvents</i>	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates
<i>Waste Water</i>	Clear or gray	Oil, grease, concrete
<i>Concrete</i>	White or gray solids	Limestone, sand
<i>Sand, Gravel</i>	Solid particles	Silicon, suspended solids, turbidity, sediment
<i>Hydraulic oil/fluids</i>	Brown oily petroleum hydrocarbon	Mineral oil
<i>Gasoline</i>	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE
<i>Diesel Fuel</i>	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes
<i>Antifreeze/coolant</i>	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)
<i>Polarset</i>	Light green, clear liquid	Calcium Bromide, Calcium Nitrate, Diethylene Glycol, Methyldiethanolamine, Calcium Nitrite
<i>Daracel</i>	Clear Liquid	Naphthalenesulfonic acid, polymer with formaldehyde

TABLE 3

SWPPP IMPLEMENTATION SCHEDULE

SWPPP FEATURE	TARGET IMPLEMENTATION DATE
<i>Monthly facility inspections</i>	Ongoing
<i>Implementation of SWM Control Measure</i>	See TABLE 4
<i>Employee Training Program</i>	Date of environmental seminar: Fall Annually General employee instruction: Ongoing
<i>Environmental Education Program Evaluation</i>	Fall Annually
<i>Annual Compliance Assessment</i>	Fall Annually

TABLE 4

SWM CONTROL MEASURES IMPLEMENTATION SCHEDULE

FACILITY SITUATION	SWM CONTROL MEASURE	TARGET IMPLEMENTATION DATE
<i>Water Treatment Basin</i>	Inspect concrete basin in DZ-1 for effectiveness. Clean out if needed.	Ongoing, checked on a daily basis.
<i>pH Watchdog Water Treatment System</i>	Inspect that system is functioning properly.	Ongoing, checked on a daily basis.
	Check acid levels	Ongoing, checked on a daily basis.
	Clean pH probe	Ongoing, checked on a monthly basis.
<i>Equipment Inspections</i>	On-site vehicles and equipment will be thoroughly inspected for fluid leaks and other potential pollutants.	Ongoing, checked on a daily basis.
	Preventative maintenance will be performed on a regular schedule.	Ongoing, maintenance performed on a monthly basis or as needed.
<i>General Housekeeping</i>	Aggressive enforcement of good housekeeping measures will be implemented.	Ongoing, enforced on a daily basis.

CHANNEY

ENTERPRISES

Appendix A

I. General Information

CEEIP Inspection Form

Facility:		Permit #:	
Date:	Time:	Weather:	Phone:
Facility Address:			Site Manager:
Inspector:			

II. Site Conditions

SWPPP On Site: Yes No DMR's On Site: Yes No

	Condition Range				Comments/Corrections Needed
	Great	Good	Fair	Poor	
E & S Control					
On-Site Storage					
Equipment/ Vehicles					
Roadways					
Air Pollution					
Discharge Monitoring	Discharging: Y / N pH:				

Additional Comments on Site Conditions:

III. pH Treatment System

	Questions	Answer
Washout/Settling Ponds	Have washout basins/ponds been cleaned recently?	
	What is the pH in the settling area w/handheld probe?	
pH Controller	What is the pH reading upon arrival?	
	What is the Hi limit reading?	
	What is the Lo limit reading?	
Mixing	How much CO2/Sodium bisulfate is in the tank?	
	Does additional chemical need to be added/ tank filled?	
	Were site personal informed?	
pH Probe	Is probe covered in residue and dirty?	
	Was probe cleaned with cleaning solution?	
	What are readings before/after calibration with solution 7.0?	
	What are readings before/after calibration with solution 10.0?	
Piping	Is intake piping functional?	
	Is discharge piping functional?	

Site Corrections:

Due Date:

Days **1wk** **2wk** **3wk**

Sign: _____

Comments on pH System Conditions:

Inspector

Name: _____ Signature: _____ Date: _____

2410 Evergreen Road | Suite 201 | Gambrills, Maryland 21054

WEB ChaneyEnterprises.com PHONE 888-424-2639

APPENDIX B

EMERGENCY CONTACT INFORMATION

IN THE EVENT OF A SPILL... CONDUCT THE FOLLOWING STEPS:

1. LOCATE SPILL KIT
2. CONTAIN SPILL
3. CONTACT CHANEY SAFTEY DIRECTOR

Chris McCoy
240-299-7172

4. CONTACT THESE AGENCIES

NATIONAL SPILL RESPONSE CENTER
(800) 424-8802

APPENDIX E

ENVIRONMENTAL EDUCATION SEMINAR EVALUATION FORM

Program Feature	Applicable? (Y/N)	Comments
Has a date been established for the annual seminar?		
Will all state and federal regulations be addressed?		
Will employees be informed of any changes to the SWPPP?		
Will there be any outside sources involved in the training program?		
Did the facility staff appear more informed after last year's program?		
Have there been any employee comments/suggestions?		
<div style="display: flex; justify-content: space-between;"> Name: _____ Date: _____ </div> <div style="margin-top: 10px;"> Signature: _____ </div> <div style="margin-top: 10px;"> Title: _____ </div>		

APPENDIX F

SWPPP COMPLIANCE ASSESSMENT

SWPPP Feature	Y/N	Comments
Have bi-weekly inspections been conducted and have form been completed and filed?		
Have daily pH readings been taken and have logs been completed and submitted to the Environmental Manager?		
Have BMP's been implemented and has the implementation schedule been adhered to?		
Has employee training been implemented?		
Has the Environmental Education Program been evaluated and forms filed?		
Have all changes to site function been addressed in the SWPPP?		

Name: _____

Date: _____

Signature: _____

Title: _____

