

**BAYER MATERIALSCIENCE, LLC
125 NEW SOUTH ROAD
HICKSVILLE, NY**

NYSDEC 130004

**STORMWATER POLLUTION PREVENTON
PLAN**

EQ NORTHEAST, INC.

Revised February 21, 2013



STORMWATER POLLUTION PREVENTION PLAN

TABLE OF CONTENTS

- 1.0 Introduction
- 2.0 Site Description and History
- 3.0 Key Personnel
- 4.0 Proposed Activities
- 5.0 Soil and Erosion Controls
 - 5.1 Erosion and Sediment Control – Work Area
 - 5.2 Erosion and Sediment Control – Stockpiles
 - 5.3 Erosion and Sediment Control – Excavation Area
 - 5.4 Runoff and Drainage Control
 - 5.5 Maintenance and Inspection
 - 5.6 Minimization of Pollutants
 - 5.7 Restoration
 - 5.8 Erosion Controls Removal/Demobilization

APPENDICES

- Appendix A Erosion Control Barrier Locations - Maps
- Appendix B Maintenance and Inspection Form
- Appendix C Straw Wattle Product Description
- Appendix D Silt Fence Product Description



1.0 INTRODUCTION

As required in the Remedial Design, EQ has prepared this Soil and Erosion Control Plan for the remedial work to be conducted at the Bayer MaterialScience, LLC site in Hicksville, NY. It is intended that this Plan comply with the substantive requirements of NYDEC's General Permit GP-0-10-001 for stormwater discharges from construction activities.

The remedial activities are being conducted to remove approximately 17,000 tons of soil containing PCB's, polycyclic aromatic hydro carbons (PAHs) and metals exceeding soil clean-up objectives for the site. The soil is located in 60 excavation areas on the approximate 14 acre site. Excavation areas vary in depth up to 10 foot below ground surface. No excavations will be advanced below 10 foot. This Plan is intended to manage erosion, storm water and construction water at the site during remedial activities. Upon completion of remedial activities, the site shall be restored to designated grades and finished with topsoil and hydroseed.

2.0 SITE DESCRIPTION AND HISTORY

The Site consists of a 14-acre triangular-shaped parcel located just southeast of the intersection of New South Road and Commerce Place in the City of Hicksville, New York. The Site is bordered to the north by industrial properties, to the south and west by the Long Island Railroad (LIRR) and commercial/industrial properties, and to the east by a commercial building complex owned by Simone Development and a complex owned by Northrop Grumman Corporation (Northrop Grumman).

Aside from the Administration Building located in the northern portion of the Site, all other buildings and aboveground structures formerly used in connection with site operations were demolished down to their floor slabs in 2003. The building floor slabs and foundations were demolished and removed between December 2005 and February 2006.

Non-masonry building materials generated by the demolition activities were transported for offsite reclamation/disposal. Impacted concrete and masonry wall materials and impacted concrete flooring/foundations were also transported for offsite disposal. The non-impacted concrete and masonry from the demolition activities were crushed and used onsite as hard fill or stockpiled onsite for future use. The last of the clean stockpiled material was used as subsurface fill during an interim corrective measure (ICM) in 2009 (i.e., to backfill various excavation areas and portions of onsite sumps referred to as AOCs 28-30).

The Site was formerly used as a production facility for polyester resin, polyurethane dispersions, and polyvinyl chloride (PVC). The facility was originally constructed in 1945 and operations were expanded in subsequent years. The facility was previously owned/operated by the Hooker Chemical and Plastic Corporation/Occidental Chemical Corporation (HCPC/OCC) from 1966 to 1982. The facility was designated as a Superfund site and placed on the National Priorities List (NPL) established under the



Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1984. Various soil and groundwater investigation/remedial activities have been implemented since that time.

Ruco Polymer Corporation (Ruco) purchased the facility from HCPC/OCC in 1982. Ruco operated an onsite RCRA interim status drum storage facility in the early 1980s. Ruco was acquired by Sybron Chemical Corporation (Sybron) in 1988, and Sybron became the facility owner. Sybron was, in turn, acquired by Bayer Corporation in 2000, and Bayer Corporation became the facility owner. Facility ownership was transferred from Bayer Corporation to Bayer Polymers LLC in 2003 as part of a corporate restructuring. As part of the further restructuring, Bayer Polymers LLC became Bayer MaterialScience LLC in 2004.

In summer of 2009, EQ was contracted to remove approximately 16,000 tons of PCB contaminated soil and concrete. All material was removed and transported as TSCA waste to EQ Wayne Disposal in Belleville, Michigan. It is believed that this work scope effectively removed most if not all TSCA hazardous wastes from the property. EQ utilized the stockpiled C&D debris as backfill in the deeper excavation areas.

3.0 KEY SITE PERSONNEL

Bayer MaterialScience
Mr. David B. Schnelzer
Bayer MaterialScience
100 Bayer Road
Pittsburgh, PA 15205
(412) 303-4907

On-Site Engineer
Mr. David Kingsley
ARCADIS U.S. Inc.
295 Woodcliff Drive, Ste. 301
Fairport, NY 14450
(585) 233-7046

Remedial Contractor
EQ Northeast, Inc.
Mr. David Cirolli – Project Manager
Mr. John Curran – Site Superintendent
185 Industrial Road, PO Box 617
Wrentham, MA 02093
(508) 384-6151

Sampling, Analysis and QA Support
Preferred Environmental Services
Ms. Jill Haimson
323 Merrick Avenue
North Merrick, NY 11566
(516) 546-1100

4.0 PROPOSED ACTIVITIES

A summary of proposed site remedial activities is as follows:

- Project Award
- Pre-Construction Submittals
 - Submit Insurance and Work Plans
 - Pre-con meeting
 - Project Signage
 - NY One-Call and private utility mark-out
- Mobilization



- Baseline Survey and Controls
- Determine and flag horizontal limits of excavation for all Area B (reuse) excavation areas
- Mobilize equipment, supplies and office trailers
- Erosion/sediment controls installation
- Construct staging area and decon pad
- Establish water storage tanks
- Establish CAMP and personnel monitoring
- Excavation
 - Excavate and stockpile for re-use onsite all Area B soil (2,957 CY)
 - Determine and flag horizontal limits of excavation for one and two foot deep Area A excavation areas
 - Survey/Volume calculation of Area B excavation areas
 - Excavate and stockpile for disposal classification all one and two foot deep Area A excavation areas (1,467 CY)
 - Survey/Volume calculations of shallow Area A excavation area (one and two foot)
 - Determine and flag horizontal limits of excavation for three to 10 foot deep Area A excavations
 - Excavate Deep Area A excavation areas (5,673 CY)
 - Survey/Volume calculations of Deep Area A excavation areas
 - Scrape/stockpile mound area
 - Size encountered concrete footings for disposal
- Confirmation, Documentation and Waste Characterization Sampling and Analysis
- Transport and Disposal
 - Non Haz Soil Transport
 - Non Haz Concrete Transport
 - Haz Direct Rail to EQ Wayne, MI (if necessary)
- Backfilling (to be completed concurrent with excavation after receipt of analytical)
 - Reuse Soils (2,957 CY)
 - Imported Fill (4,332 CY)
 - Topsoil (2,481 CY)
 - Hydroseed
- Demobilization
- Close-out Documentation

The EQ approach to the excavation of the Area A and B soils will be to complete the work in defined phases to minimize the overall number of wooden stakes, flag pins or other mark-outs in the ground at any one time. With over 60, variably-shaped AOC areas to survey, stake, excavate and track, completing the work in phases will eliminate errors and the need to re-survey and re-stake areas multiple times. As is defined on the project schedule, the Area B AOC areas will be staked and excavated first, generally working in a north to south direction. By the time the estimated 2,957 CY of Area B soil is excavated, staged and secured for re-use, Angle of Attack will have completed the stake-out of the next phase of soil to be excavated, the shallow one to two foot deep Area A AOC areas. The shallow Area A excavation will be completed next, accounting for approximately 1,467 CY. This approach will also provide natural benching of the deeper



Area A AOC areas, limiting or more likely eliminating the need to slope the steeper excavation and thereby reducing or eliminating the handling and stockpiling of sloped soils. From our excavation experiences in 2009, we know the soil types at the site are conducive to this excavation approach. Finally, the deeper (3-10 foot) Area A excavations (5,673 CY) will be staked and excavated in the last phase. EQ will utilize a trench box or other means to protect the property boundaries in AOCs 20A and 33A, or place backfill (Area B re-use soil) immediately to protect the property boundaries at these two AOCs as well as a small portion of AOC 23A. Any sampling required at these sidewall locations will be completed first. Since these sidewalls are at the Bayer property boundaries, no step-out excavations are anticipated to occur along these interfaces. The 1,115 CY Mound Area will be excavated with the shallow Area A excavation areas. All excavation work will be completed utilizing two CAT 320 excavators fitted with flat-edged grading type buckets. Soil will be moved to stockpile areas via 10-wheel dumps or large front end loader.

This phased approach to the work will allow EQ to complete the excavation in a sequential order, north to south and shallow to deeper. It will provide natural benching into the deeper excavations as the shallow adjacent excavations are completed first. It will reduce or eliminate the need to handle, stockpile, characterize or dispose soil from "sloping" the deep excavations. It will allow confirmation and documentation sampling of excavation bottoms and sidewalls to occur in a logical, measured progression. And finally, it will limit survey costs due to reducing the number of stake-out flags in the ground at any one time exposed to heavy equipment traffic and damage.

Excavated materials for offsite disposal will be placed in the material staging area for waste characterization. The intent will be to transport stockpiled materials offsite as soon as practical after receipt of characterization sampling results. Soil for re-use onsite (Area B soils) will be staged near to where they will be re-used (See Handling of Excavated Material). These soils are to be sampled in accordance with NYSDEC requirements prior to re-use onsite. Again, the intent will be to backfill excavations as soon as is practical after receipt of analytical to reduce exposure to open excavations. Imported backfill will bring all excavation areas to within 6" of final grade. Topsoil (6") and hydroseed will complete the restoration of the site.

5.0 SOIL AND EROSION CONTROLS

This plan has been prepared to provide engineering controls consistent with best management practices for the control of erosion and sedimentation at the Site during the proposed work. Soil erosion and sediment controls will be installed prior to intrusive activities.

5.1 Erosion and Sediment Control – Work Area

Based upon site conditions, erosion and control measures will be installed at locations surrounding the perimeter of the site as shown on Appendix A. There are locations on the perimeter of the site where the elevation of surrounding properties are higher than the site. These areas include the southern corner of the site (where no



erosion/sediment control barrier is shown) and other areas along the eastern boundary. At these distinct areas EQ does not propose to install erosion/sediment control barrier as offsite runoff is not possible. Otherwise, at all locations shown on the plan in Appendix A, EQ will install 9" straw wattle (straw socks), secured in place with 8" steel wire staples. The staples will be placed on each edge of the wattle, at no more than 3 foot intervals. At locations where concentrated overland flow is evident, EQ will reinforce the straw wattle by installing silt fence behind the wattle. The straw wattle product description is included as Appendix C. No subsurface drainage system exists on the site. There are no stormwater inlets to protect in the work area. In any area where silt build-up occurs, EQ will remove the silt and bring it to the contaminated soil stockpile area.

5.2 Erosion and Sediment Control – Stockpiles

The contaminated soil stockpile area will be constructed with a built-in berm. In addition, all soil within the soil staging area will be covered at the end of each day and at all times when not actively being worked.

5.3 Erosion and Sediment Control Methods – Excavation Area

Individual excavation areas will be bermed with clean, onsite borrow to avoid runoff/run-on within each area.

5.4 Excavation Contact Water

EQ has experience on this site, having completed the 2009 Interim Corrective Measure, where over 16,000 tons were excavated from multiple excavation areas of varying depth. From our experience on the site, and a working knowledge of the soil lithology of the area, any rainwater that does enter the excavation areas will be allowed to naturally infiltrate. In the event that contact water within an excavation area requires removal, it will be directly pumped via 3" pumps/hose into a 20,000 gallon frac-type storage tank which will be onsite.

5.5 Maintenance and Inspection

Once erosion and sediment controls are installed, site inspections shall be conducted at least twice every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. During each inspection, the following information shall be recorded:

- (1) Indicate on a site sketch all areas of the site that have undergone temporary or permanent stabilization, if applicable;
- (2) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier systems. Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures and any overflow; and



- (3) All deficiencies that are identified will be corrected and the soil and erosion controls will be maintained and repaired/replaced as necessary during the course of the site work.

A copy of the inspection form is included in Appendix B. All completed forms will be kept on file at the site throughout construction.

5.6 Minimization of Pollutants

To minimize the potential impacts of pollutant sources, the following objectives will be established:

- Equipment refueling will occur on level ground, at designated areas away from excavations.
- Spill kits will be available at the site, and at refueling locations.
- Truck loading at the soil staging area will be completed atop polyethylene sheeting, with any spillage swept back into the stockpile area.
- Truck traffic will be on paved surfaces, or surfaces improved with crushed stone.
- Vehicle/Equipment decontamination pad will be installed near the exit of the site to remove soil/debris from vehicles as needed.
- All stockpiles of soil will be covered when not in use.
- Any trash or debris will be picked up daily to maintain good housekeeping.
- Vehicles/Equipment will be inspected daily for fluid leaks, and repaired or removed as necessary.

5.7 Restoration

Restoration of the site will include import of clean backfill, compacted to complete each excavation area to within 6" of final grade. The final 6" will be top soiled, seeded and mulched (hydroseed).

5.8 Erosion Controls Demobilization/Removal

EQ will not remove any erosion control devices until project activities are complete and the area is stabilized. EQ will require concurrence from the Site Engineer prior to removal of the erosion control devices and barriers.

EQ will cut the straw wattle and spread evenly. Silt fence will be removed and disposed offsite.



APPENDIX A

SITE MAPS

LOCATIONS OF EROSION CONTROL BARRIERS



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APPENDIX B

MAINTENANCE AND INSPECTION FORM

EROSION AND SEDIMENT CONTROL PLAN – INSPECTION REPORT

**BAYER MATERIALSCIENCE, LLC
125 NEW SOUTH ROAD
HICKSVILLE, NEW YORK**

Name/Title: _____ Date/Time: _____

Weather and Site Conditions: _____

_____ WEEKLY _____ RAIN EVENT _____ OTHER

Measures & Controls	In Conformance with Design Standards	Effective Pollutant Control Practice
Construction Entrance	YES / NO / NA	YES / NO / NA
Silt Fence	YES / NO / NA	YES / NO / NA
Soil Stabilization	YES / NO / NA	YES / NO / NA
Straw Bales	YES / NO / NA	YES / NO / NA
Solid Waste Disposal	YES / NO / NA	YES / NO / NA
Equipment Fueling/Storage	YES / NO / NA	YES / NO / NA
Hazardous Materials Storage	YES / NO / NA	YES / NO / NA
Hazardous Waste	YES / NO / NA	YES / NO / NA
Sanitary/Septic	YES / NO / NA	YES / NO / NA
Catch Basins	YES / NO / NA	YES / NO / NA
Offsite Storage Erosion Controls	YES / NO / NA	YES / NO / NA
Rock Check Dams	YES / NO / NA	YES / NO / NA
Other:	YES / NO / NA	YES / NO / NA

NOTES: (Explain each "NO": circled above)

Provide a description or photographs of all runoff from site (e.g. overland flow, culverts, and ditches):

Provide a description or photograph of receiving water bodies, including identification of any discharges of sediment to adjacent water bodies:

Describe or sketch any disturbed areas and/or areas stabilized since the last inspection:

Insert photographs (with time stamp) of all practices requiring corrective action and those measures repaired from the previous section.

RECOMMENDED CORRECTIVE ACTION(S):

INSPECTOR'S SIGNATURE:

Signature: _____



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APPENDIX C

STRAW WATTLE PRODUCT DESCRIPTION

AEC Premier Straw Wattles™

Straw Sediment Control Device

American Excelsior Company's AEC Premier Straw Wattles are tubular products consisting of the finest available agricultural straw fibers encased in durable netting. The straw fibers are certified weed seed free. Straw wattles are dense by nature, thus they pool water unlike Curlex Sediment Logs® that allow water to filter through its porous matrix. AEC Premier Straw wattles may be placed across channels bottoms, but their primary use is on hillslopes to break up slope lengths and slow overland flow.



MATERIAL CHARACTERISTICS

AEC Premier Straw Wattles consist of the finest weed seed free agricultural straw fibers encased in durable netting. AEC Premier Straw Wattles are available wrapped on pallets for mechanical unloading.

Product Name/Nominal Diameter	9.0 in	12.0 in	20.0 in
Minimum Diameter	8.5 in (21.6 cm)	11.5 in (29.2cm)	19.0 in (48.3 cm)
Length (± 10%)	25.0 ft (7.6 m)	10.0 ft (3.1 m)	10.0 ft (3.1 m)
Weight (± 10%)	50.0 lb (22.7 kg)	30.0 lb (13.6 kg)	60.0 lb (27.2 kg)
Density (± 10%)	4.53 lb/ft ³ (72.63 kg/m ³)	3.82 lb/ft ³ (61.25 kg/m ³)	2.75 lb/ft ³ (44.10 kg/m ³)

TYPICAL APPLICATIONS

- On hillslopes to break up slope length and overland flow
- Across channel bottoms to pool water and reduce flow velocities



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AEC Premier Straw Wattles

Straw Sediment Control Device

Installation

AEC Premier Straw Wattles shall be installed on slopes or in channels to intercept water flow and collect sediment on site. AEC Premier Straw Wattles are typically installed in a two inch deep trench that is constructed along the contour, perpendicular to the slope or direction of flow. Ends of the wattles shall be turned up the slope, so as to retain water and prevent its release from the end of the wattle.

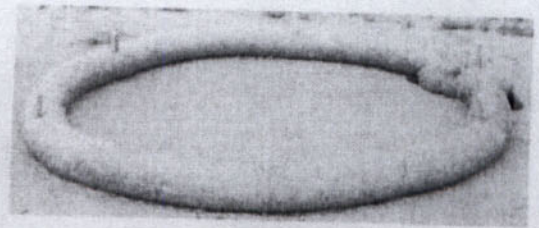
Wattles shall be secured to the subgrade by wooden stakes spaced every four lineal feet across the length of the wattle. Stakes shall be driven through the center of the wattle and into the ground a minimum of 24", with less than two inches projecting above the top of the wattle. A stake shall be placed within two feet of the end of the wattle. The installation process may be expedited by using a metal rod to create pilot holes for wooden stakes. When joining two wattles, tightly abut both ends or overlap the wattles approximately six inches. If wattles are joined together by abutting the ends, tie the ends together using heavy twine or plastic locking ties.



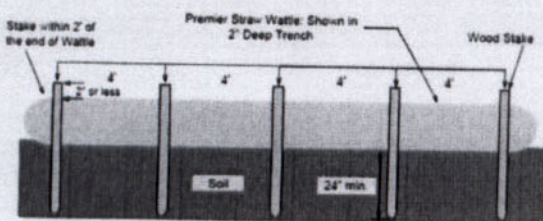
When installing in a channel bottom, AEC Premier Straw Wattle installation shall continue three feet above the anticipated high water mark.

AEC Premier Straw Wattles shall remain in place until fully established vegetation and root systems are present and can survive on their own. Wattles that are not removed will degrade in-place.

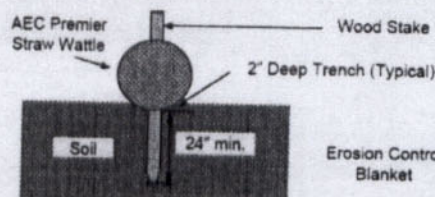
Project specifications should be reviewed for any unique installation requirements.



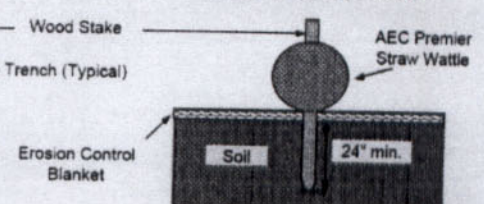
AEC PREMIER STRAW WATTLES™
Staking Pattern Guide



Wattle Cross Section: On Bare Soil



Wattle Cross Section: On Erosion Control Blanket



Notes:

1. Drawings are not to scale.
2. Ends of Wattles shall be turned slightly up.
3. Recommend stakes are 1 1/8" wide x 1 1/8" thick x 30" long. Stakes shall not extend above the straw wattle more than 2".

Disclaimer: AEC Premier Straw Wattles are a system for erosion and sediment control on slopes and channels. American Excelsior Company (AEC) believes that the information contained herein to be reliable and accurate for use in erosion and sediment control applications. However, since physical conditions vary from job site to job site and even within a given job site, AEC makes no performance guarantees and assumes no obligation or liability for the reliability or accuracy of information contained herein for the results, safety, or suitability of using AEC Premier Straw Wattles, or for damages occurring in connection with the installation of any erosion control product whether or not made by AEC or its affiliates, except as separately and specifically made in writing. These specifications are subject to change without notice.



If you would like to receive more information or consult with one of our Customer Care Center Specialists, please call us toll free at (888-352-9582) PDF download specifications available in the Technical Support Library at www.curlex.com



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APPENDIX D

SILT FENCE PRODUCT DESCRIPTION

SILT FENCE SPECIFICATIONS

STYLE: NJ DOT DRAWSTRING
STAKES: 2" X 2" X 48" (NOMINAL) HARDWOOD
CENTERS: 8 FT O.C. (13 STAKES)
FABRIC: Mutual 1855

GRAB TENSILE STRENGTH	ASTM D4632	120lbs
GRAB TENSILE ELONGATION	ASTM D4632	15%
MULLEN BURST STRENGTH	ASTM D3786	347
PUNCTURE STRENGTH	ASTM D4833	60lbs
TRAPEZOIDAL TEAR	ASTM D4533	80lbs
APPARENT OPENING	ASTM D 4751	50 U.S. Std Sieve
FLOW RATE / PERMITIVITY	ASTM D 4491	30 gpm/sq.ft
UV RESISTANCE After 500 hrs	ASTM D 4355	90% Strength Retained

* TENSION BELT WOVEN INTO THE TOP OF THE WOVEN GEOTEXTILE FOR ADDED SUPPORT STRENGTH.