State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Watershed Management
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JON S. CORZINE
Governor

LISA P. JACKSON
Commissioner

November 20, 2008

Derek Berg
Regional Regulatory Manager – Northeast
Contech Stormwater Solutions
200 Enterprise Drive
Scarborough, ME 04074

Re: Final Certification
StormVault by CONTECH Stormwater Solutions, Inc.

Issuance Date: November 20, 2008

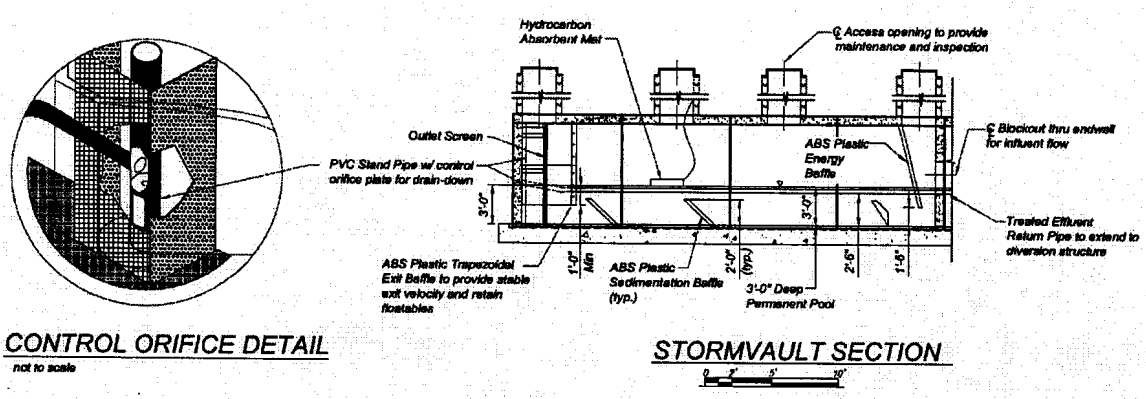
Dear Mr. Berg :

The Stormwater Management rules at N.J.A.C. 7:8-5.5(b) and 5.7(c) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). CONTECH Stormwater Solutions, Inc. has requested a Certification of the TSS Removal Rate for the StormVault system.

The StormVault system is a subsurface chamber made by interlocking concrete arches with energy dissipating baffles at the inflow and prior to the outflow. Additional baffles are placed for every additional sixteen (16) feet of arches. The system has a three-foot permanent pool and sufficient storage above the permanent pool to provide a 24 hour drawdown time from the peak volume. Oil absorbent mats may be placed in the system to enhance oil removal, but are not required to achieved the certified TSS removal rate.

NJCAT's verified claim states that "StormVault field test has demonstrated that: StormVault, with a minimum permanent pool depth of 3 feet, sufficient active storage to capture the water quality volume and a minimum brimful draindown time of 6-hours, has demonstrated a total suspended solids (TSS Standard Method 2540D) removal efficiency of 86% with 95% confidence intervals of 81% and 91% for sandy loam texture sediment in the field."

StormVault System Schematic



The NJDEP certifies the use of the CONTECH Stormwater Solutions, Inc. Stormvault at a TSS removal rate of 80%, subject to the following conditions:

1. The StormVault system is designed according to the NJ Water Quality Design Storm in N.J.A.C. 7:8-5.5.

2. The StormVault system provides a minimum 3-foot permanent pool equivalent to or greater than the total inflow volume of the NJ Water Quality design storm and must have a minimum length to width ratio of 3:1.

3. Beginning at the time of peak storage in the basin for the water quality design storm, no more than 90 percent of the total peak storage volume is released over a 24 hour period. The minimum outlet diameter is one (1) inch. If this minimum outlet does not allow for a 24-hour detention time, the 24-hour release period can be reduced to a minimum of six (6) hours. The use of an orifice less than one (1) inch and/or a drawdown time of less than six (6) hours is not in compliance with the conditions of this certification.

4. The StormVault system is certified as an off-line system only. The product variation that includes the addition of an inlet chamber to provide bypass for the storm events larger than the NJ Water Quality Design storm would satisfy the requirement of ensuring the off-line installation of this system.

5. A settling chamber cannot be used in series with any other settling chambers, including hydrodynamic separators, to achieve an enhanced removal rate for total suspended solids (TSS) removal under N.J.A.C. 7:8-5.5.

6. The maintenance plan for sites using this device shall incorporate, at a minimum, the maintenance requirements for the StormVault system shown in Appendix A below.

Additional information regarding the implementation of the Stormwater Management rules N.J.A.C. 7:8 are available at www.njstormwater.org.

If you have any questions regarding the above information, please contact Sandra Blick of my office at (609) 633-1441.

Sincerely,

Lawrence J. Baier

Lawrence J. Baier, Director
Division of Watershed Management

Enclosure

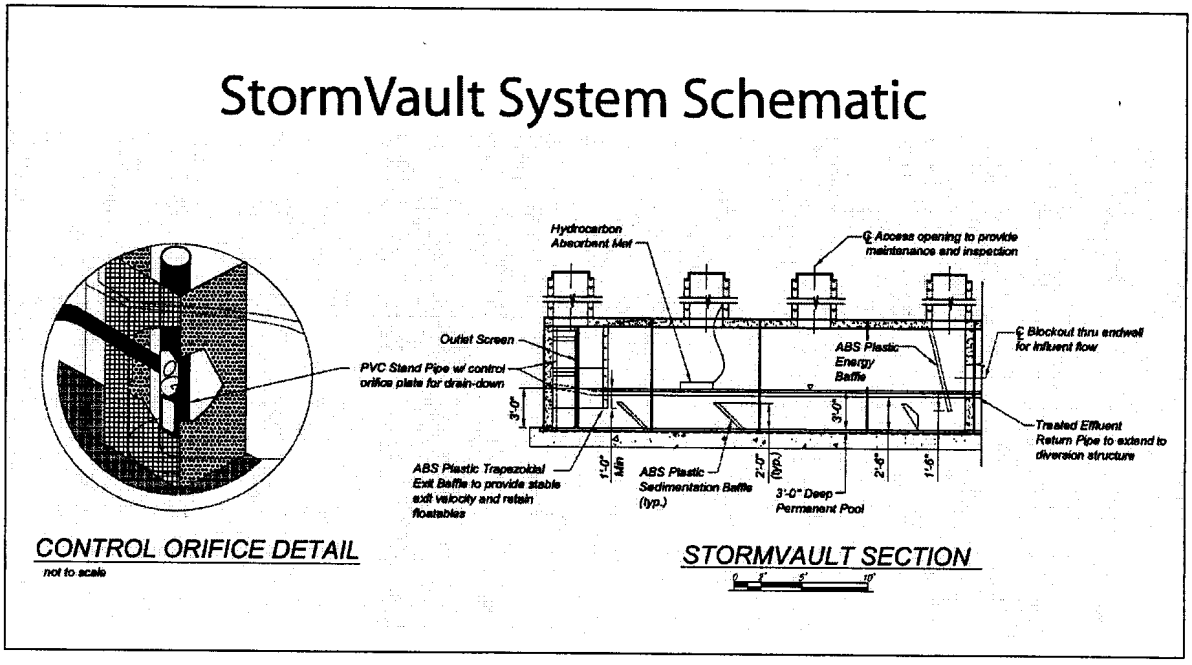
c: Rhea Weinberg Brekke, NJCAT
Tom Micai, NJDEP
Mary Beth Brenner, NJDEP

Appendix A: Maintenance Requirements for StormVault System by Contech Stormwater Solutions, Inc.

Effective performance of stormwater management best management practices requires regular and proper maintenance. Chapter 8 of the New Jersey Stormwater Best Management Practices Manual and N.J.A.C. 7:8-5.8 of the Stormwater Management rules provides additional information and requirements for preparing a maintenance plan for stormwater management facilities. Specific maintenance requirements for the StormVault System manufactured treatment device by Contech Stormwater Solutions, Inc. are presented below. These requirements must be included in the stormwater management system's maintenance plan in order to achieve the TSS removal rate associated with this manufactured treatment device.

A. General Maintenance

Any and all stormwater management system components expected to receive and/or trap debris and sediment must be inspected for clogging and excessive debris, sediment, and oil accumulation at least four times annually as well as after every storm exceeding 1 inch of rainfall. Such components may include bottoms, trash racks, low flow channels, outlet structures, riprap or gabion aprons, and cleanouts. Disposal of debris, trash, sediment, and other waste material should be done at suitable disposal/recycling sites and in compliance with all applicable local, state, and federal waste regulations. An analysis of the materials may be required prior to disposal.



All maintenance plans incorporating the StormVault system must indicate that sediment be removed at or before the average depth of sediment reaches six (6) inches.

B. Equipment and Training Requirements

Inspections are performed from the ground surface through access ports are located in the top of the manhole to facilitate inspection and maintenance. Equipment for the inspection (such as a flashlight, gloves, manhole hook, safety cones and probes to measure the depths of oil and sediment) and for the removal of sediment must be specified by the design engineer in the maintenance plan.

Maintenance of the StormVault chambers are performed by lowering a hose and nozzle into each chamber and pumping the collected material into a vacuum truck. During vacuuming, the permanent pool of water must remain when the sediment is removed. This will minimize the amount of material to be disposed of. Captured sediment resuspends easily; therefore, great care must be taken to prevent turbulence that may cause mixing and resuspension of settled materials. It is recommended that a professional pumping contractor, trained and licensed to remove and dispose of captured sediment material, perform this task.

The StormVault System is a confined space. Enter only when necessary and with the proper equipment, following OSHA confined space entry regulations.

C. Structural Components

All structural components must be inspected for cracking, subsidence, spalling, erosion, and deterioration at least annually.

D. Replacement Parts

Certain components of this device are only available through the manufacturer in order to achieve the TSS removal certified by the Department. If damage is noted on any components, replacement parts must be obtained from CONTECH Stormwater Solutions, Inc.

E. Additional Requirements

Where hydrocarbon mats are part of the approved plan, the following maintenance information must also be incorporated under the appropriate section:

A: General Maintenance

Hydrocarbon mats, which float on the surface of the permanent pool, are designed to remove free oils and greases. The mats are attached to the manhole accesses using a lanyard. These mats will be a granular solid white when initially installed and will turn darker as they absorb free oils and greases. Hydrocarbon mats must be replaced once the mat becomes a solid dark color uniformly throughout the granular medium.

B: Equipment and Training Requirements

To remove the mats, pull out the lanyard attached to the inside of the access cover. Care should be taken in lifting the mats out through the manholes, as the saturated mats can weigh up to five times as much as new mats. The used mats should be disposed of as directed by the local authority. Generally this is in a similar manner used to dispose of drain oil or similar materials. Replace the mats in like fashion by clipping the new mats to the keeper lines.

D. Replacement Parts

Hydrocarbon mats can be obtained by contacting CONTECH Stormwater Solutions.