

Attachment 1

Manufactured Treatment Device (MTD) Registration

1. Manufactured Treatment Device Name: *Continuous Deflective Separator (CDS)*

2. Company Name: *Contech Engineered Solutions LLC*

Corporate headquarters

Mailing Address: 9025 Centre Pointe Drive

City: West Chester

State: Ohio Zip: 45069

3. Contact Name (to whom questions should be addressed):

For technical matters: Derek Berg

Mailing Address: 71 US Route 1, Suite F

City: Scarborough

State: Maine Zip: 04074

Phone number: 207-885-6174

Fax number: 207-885-9825

E-mail address: dberg@conteches.com

Web address: <http://www.conteches.com/>

For Project Specific Questions Please Contact Contech's Baltimore Maryland Office:

605 Global Way, Suite 113

Linthicum, MD 21090

Ph.: 410-740-8490

4. Technology

Specific size/capacity of MTD assessed (include units): Several different units have been tested in various evaluation programs. A CDS2020-5 was tested in several different laboratory trials in accordance with the laboratory criteria defined by the WA Dept. of Ecology as part of their TAPE program. This unit has a rated treatment capacity of 1.1cfs. A CDS2020-5 was also tested in the field in accordance with the TARP field protocol.

Range of drainage areas served by MTD (acres): The CDS is available in a number of sizes and can treat a wide range of drainage areas.

Include sizing chart or describe sizing criteria: The CDS is sized to maintain consistent hydraulic loading rates across all model sizes. See sizing chart included in the GULD issued by WA Dept. of Ecology for capacities for all units.

Intended application: on-line or offline: The CDS has been certified by NJDEP for online use

Media used (if applicable): NA

5. Warranty Information (describe, or provide web address):

Contech provides a limited 1-year warrantee for all of its stormwater treatment solutions

6. Treatment Type

- Hydrodynamic Structure
- Filtering Structure
- Manufactured Bioretention System
- Provide Infiltration Rate (in/hr):
- Other (describe):

7. Water Quality Treatment Mechanisms (check all that apply)

- Sedimentation/settling
- Infiltration
- Filtration (specify filter media)
- Adsorption/cation exchange
- Chelating/precipitation
- Chemical treatment
- Biological uptake
- Other (describe): Screening of trash and debris including neutrally buoyant material.

8. Performance Testing and Certification (check all that apply):

Performance Claim (include removal efficiencies for treated pollutants, flow criteria, drainage area):

Based on laboratory trials, the CDS™ System will achieve 50% removal of total suspended solids with d50 of 50-µm and 80% removal of total suspended solids with d50 of 125-µm at 100% design flowrate with influent concentrations near 200 mg/L.

Specific size/Capacity of MTD assessed: *A 5ft diameter CDS2020 was evaluated in accordance with WADOE/TAPE laboratory criteria as well as the TARP field testing criteria.*

Has the MTD been "approved" by an established granting agency, e.g. New Jersey Department of Environmental Protection (NJDEP) , Washington State Department of Ecology, etc.

No

Yes; For each approval, indicate (1) the granting agency, (2) use level if awarded (3) the protocol version under which performance testing occurred (if applicable), and (4) the date of award, and attach award letter.

A.

1. *WADOE*
2. *General Use Level Designation*
3. *TAPE Laboratory/Pretreatment Protocol*
4. *2007, updated 2014*

B.

1. *NJDEP*
2. *Final Field Certification*
3. *TARP Field*
4. *2011*

Was an established testing protocol followed?

No

Yes, (1) Provide name of testing protocol followed, (2) list any protocol deviations:

For Lab Tests: *Testing was conducted in accordance with WADOE/TAPE Laboratory/Pretreatment standards*

<http://www.ecy.wa.gov/programs/wq/stormwater/newtech/CDScontechGULD.pdf>

For field tests: *TARP Field Protocol*

http://www.njcat.org/uploads/newDocs/NJCATTECHNOLOGYVERIFICATIONMSBCDS_FINAL81012.pdf

9. MTD History:

How long has this specific model/design been on the market? *>15 years*

List no more than three locations where the assessed model size(s) has/have been installed in Virginia. If applicable, provide permitting authority. If known, provide latitude & longitude:

1. *CDS2015-4, Sheraton, Virginia Beach, VA*
2. *CDS2020-5, AltaVista Power, AltaVista, VA*
3. *CDS3030-6, Goose Creek Preserve, Sterling, VA*

List no more than three locations where the assessed model size(s) has/have been installed outside of Virginia. If applicable, provide permitting authority. If known, provide latitude & longitude:

1. CDS4040-8, Carmax, Frederick, MD
2. CDS2015-4, Webster Gardens, Washington, DC

10. Maintenance:

What is the generic inspection and maintenance plan/procedure? (attach necessary documents): *See website: <http://www.conteches.com/products/stormwater-management/treatment/cds.aspx#1822141-technical-info>*

Is there a maintenance track record/history that can be documented?

No, no track record.

X Yes, track record exists; (provide maintenance track record, location, and sizing of three to five MTDs installed in Virginia [preferred] or elsewhere):

Ongoing maintenance records are kept by the property owner and are not typically recorded by Contech. Numerous CDS units have been in operation for more than 10 years.

Recognizing that maintenance is an integral function of the MTD, provide the following: amount of runoff treated, the water quality of the runoff, and what is the expected maintenance frequency for this MTD in Virginia, per year?

CDS is typically cleaned out once per year, but actual maintenance frequency will be governed by site specific pollutant loads. Regular inspection is the best way to establish the appropriate maintenance frequency at a given site.

Total life expectancy of MTD when properly operated in Virginia and, if relevant, life expectancy of media: *The CDS is expected to remain viable for the life of its concrete housing as long as it is regularly inspected and maintained as needed*

For media or amendments functioning based on cation exchange or adsorption, how long will the media last before breakthrough (indicator capacity is nearly reached) occurs?

NA

For media or amendments functioning based on cation exchange or adsorption, how has the longevity of the media or amendments been quantified prior to breakthrough (attach necessary performance data or documents)? NA

Is the maintenance procedure and/or are materials/components proprietary?

Yes, proprietary

X No, not proprietary

Maintenance complexity (check all that apply):

Confined space training required for maintenance

X Liquid pumping and transportation

Specify method:

X Solids removal and disposal

Specify method:

Other noteworthy maintenance parameter (describe):

11. Comments

Include any additional explanations or comments:

12. Certification

Signed by the company president or responsible officer of the organization:

"I certify that all information submitted is to the best of my knowledge and belief true, accurate, and complete."

Signature: 

Name: Derek Berg

Title: Regional Regulatory Manager

Date: 6/4/2014

NOTE: All information submitted to the department will be made publically accessible to all interested parties. This MTD registration form will be posted on the Virginia Stormwater BMP Clearinghouse website.