TO: Rhea Brekke, Executive Director, NJCAT
Richard Magee, Ph.D., Technical Director, NJCAT

FROM: Marty Rosen, Chief
Bureau of Sustainable Communities and Innovative Technologies

SUBJECT: Particle Size Distribution Testing Requirements

DATE: June 28, 2006

As mentioned by several speakers at NJCAT's June 4 Stormwater Symposium, and as discussed by us on several occasions, it is recognized that meaningful effectiveness of a manufactured stormwater treatment device (MTD) is measured by its ability to remove and retain the smaller particles that enter the system. This concern is due to clear evidence that a number of the water contaminants of concern to NJDEP (pesticides, nutrients, metals, etc.) are associated with particles in the $\leq$100 micron range. Also, as previously discussed, the next generation of NJDEP stormwater treatment standards will likely focus on these presently unregulated contaminants and future MTDs will be faced with a higher threshold for acceptable performance. Understanding a MTD's ability to remove smaller particles was the impetus behind the respective criteria in the NJDEP laboratory and TARP Tier II testing protocols regarding particle size distribution (PSD) and the target average particle size of the tested material. Consequently, NJDEP would like to re-affirm the importance it places on ensuring that all verified manufactured treatment devices are held to the criteria incorporated in both the NJDEP laboratory and Tier II protocols, especially with respect to PSD and average particle size.

I am requesting that you please clearly convey to all stormwater technology vendors, either currently participating in the NJCAT verification process or any future participants, that this agency expects that they approach device testing for Interim Certification with the above NJDEP water quality objectives in mind. That is, selected test material must meet or exceed that specified in the test protocol. Specifically:

- In the case of **filter technologies**, vendors should use Sil-Co-Sil 106 (or an NJCAT-approved equivalent).
- With respect to **hydrodynamic devices**, the material used should have a PSD and average particle size equivalent to the NJDEP laboratory criteria.

In the case of filters, this is a new policy decision, established for consistency and to ensure that filter technologies meet their expected purpose as a finishing type of treatment device. The requirement regarding hydrodynamic devices is simply re-stating what has always been NJDEP policy.

Vendors who choose not to meet these criteria will be subject to either downward adjustments in the Interim Certification removal rating, or the imposition of necessary and restrictive conditions on the use of the verified device.

Please let me know if you have any questions or comments on the above. Thank you.

c: Ravi Patraju, Research Scientist, BSCIT