

Food Service Distribution Facility Installs AbTech's Ultra Urban Filter Catch Basins

Case Study

AbTech's Ultra Urban Filters Prove Successful in Capturing Hydrocarbons

Project Challenge

This project challenge included identifying a Best Management Practice (BMP) that would filter and remove hydrocarbons from stormwater runoff flowing into catch basins and trench drains without infrastructure modifications. In many airports today, environmental operations are designed to manage and prevent environmental problems from occurring throughout the facility.



The airport Environmental Affairs Department (EAD) selected a curb drain inlet at the foodservice distribution facility to install BMP's aimed at reducing the hydrocarbon load being discharged to the drain inlet. The curb drain inlet is approximately 10 feet long and is located downstream from the loading dock. The loading dock is a high traffic area. Daily up to 150 foodservice trucks pass by the curb drain inlet depositing hydrocarbons, hydraulic fluids, rubber and related pollutants on the concrete hard surface.

AbTech Smart Sponge® Technology was chosen because it adapts to the existing infrastructure without modifications, provides easy maintenance and installation and is a proven pre-engineered BMP. Ultra Urban® Filters and other Smart Sponge® products have a strong aviation track record having been installed in 15 domestic and military aviation facilities and over 13,000 other locations throughout the US.



Eight (8) Model CO1414H Ultra Urban Filters (UUFs) with Smart Sponge® Technology were installed at the selected curb inlet drain. AbTech Industries Ultra Urban® Filters are designed and engineered for catch basin and curb inlet drains.

During the 6 month pilot test the UUFs captured and removed 55.5 pounds of hydrocarbons and pollutants, and 16 pounds of sediment from the stormwater runoff stream.



The UUFs installed throughout the test period performed at or above expectation. The results of this field study clearly demonstrate the ability of AbTech UUF filters to capture and remove hydrocarbons and related pollutants effectively. The UUFs have measurably reduced the environmental impact by improving stormwater quality discharged at the chosen curb inlet drain.

SMART SPONGE® – An Ideal Solution for Airport Stormwater Management Programs

Smart Sponge® Technology has a unique molecular structure based on polymer technologies that are chemically selective to hydrocarbons. Polymers are composed of molecules that chemically react to form large molecules. The non-leaching Smart Sponge® permanently bonds with jet fuel, grease, oil, diesel fuel and gasoline, transforming these liquid petroleum hydrocarbons into a manageable solid waste that forms a gel-like structure. The filtration material is fully recyclable, environmentally friendly, and provides a complete closed loop solution for removing pollutants from stormwater.

For more information about the Smart Sponge® technology, visit www.abtechindustries.com or call 1-800-545-8999.

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