

Fuel Depot, Taxiways and Terminal Gates Protected by Smart Sponge®

Case Study

East Coast International Airport

At one of the fastest growing airports in the United States, construction is underway for new terminals which will expand and enhance air travel services for the region. In addition to passenger travel, this facility provides cargo service for major cargo operators which includes processing centers, regional offices, ramp space and over 95,600-square feet of cargo storage space while forwarding 110,000 tons of cargo annually.

Project Challenge

An important part of airport operations is maintaining a quality travel experience for customers in an environmentally responsible way. This commitment requires airport managers to continually evaluate and monitor programs, and implement new processes and improvements to ensure that their environmental commitment remains up to date. To accomplish that challenge a decision was made to implement additional Best Management Practices (BMP) to improve stormwater quality at specific locations throughout the airport property. The BMP would be designed to filter stormwater runoff and stop accidental spills of hydrocarbons from entering the stormwater drainage system. Additionally, the BMP would be easy to install and maintain and be installed without infrastructure modifications.



Working with the airports Environmental Management Department (EMD), locations were selected for installing AbTech's patented Smart Sponge® Technology. The EMD selected catch basins at the remote fuel depot, flight taxiway and select terminal gates. Filtration of hydrocarbons in the stormwater runoff is the primary treatment objective at these locations.

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 (UUF) 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.

At the airport, 8 UUF Filters and galvanized steel mounting collars were installed. UUF's and galvanized steel mounting collars were designed and engineered to drop into each catch basin drain, to ensure the drains were protected from accidental spills of jet fuel, hydraulic fluids, greases, oils, and related hydrocarbons common to stormwater runoff at these locations. The UUF's met all requirements for easy maintenance and service.

After 8 months of operation, the EMD reports the Smart Sponge® Technology has performed with virtually no maintenance and has provided measurable environmental benefits. Installing Smart Sponge® Technology at these locations supports this airports long term commitment managing its operations in an environmentally responsible way.





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.

