Kansas City, MO – Management for Kansas City International Airport (KCI) reports it has taken advantage of a new processing system for airplane lavatory waste that has provided better operating conditions, allowed for addition of new users and supported environmental improvement goals.

The Monster Airport Receiving Station, installed as part of a multi-terminal upgrade project, was designed and manufactured by JWC Environmental of Costa Mesa, CA.

"Since the airport was built in 1972, each of the three terminals had its own triturator facility, where blue water from aircraft was dumped into an open system—a grate over a hole that led to a grinder and pumping station," recalled David G. Long, AAE, manager of commercial development for the Kansas City (MO) Aviation Department.

When we started the KCI Terminal Improvement Project in 2000, we decided that situation was not up to the environmental standard we wanted. Each triturator was located on the apron level, directly below passenger traffic areas. While odor problems were not frequent, they did happen.”

“Meanwhile, each unit was also located in a specific airline's lease space, allowing that airline to set usage rates for its competitors, which was considered not to be in everyone’s best interest. In addition, that setup wasn’t attractive for cargo carriers and general aviation users who didn’t utilize the terminals.”

After researching related experiences at other airports, the Department contracted a third-party developer to construct a single triturator for the three-terminal complex, at a central location away from the terminals and easily accessible to passenger airlines and other users. To enhance cost-effectiveness, other functions were added to the self-contained facility.

"To help assure continued compliance with our Airport Stormwater Plan, we added a washing area for our ground support equipment, to keep cleaning solvents and lubricants off the apron, and also installed a trash compactor facility that previously was located within each terminal," Long said. "That removed the trucks from the apron area, and improved our ability to control F.O.D. (Foreign Object Damage) in the terminal complex.”

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Monster Solutions

Airport Management Gets a Handle on Lavatory Waste

PROBLEM: Visible wastewater and a substandard system

SOLUTION: Monster Airport Receiving Station

CONSULTANT: Aergo, Inc.
Since the new triturator start up in July 2004, Long noted that "no news is great news", and reported the triturator processed its initial 800 gallon load in less than a minute.

"It works very well—a closed system that keeps you from seeing or smelling waste material at any time," he said. "The old way, you could see, hear and smell the processing. The FDA wasn’t happy with the open system, and is most impressed with the new closed facility. It’s also helping the airlines to get away from a maintenance process that wasn’t part of their core function."

“They’re still working on a use fee process, to further validate their investment. We know it has enabled the airport to level the playing field for all the users, while providing the potential for new users to take advantage of it.”

According to Don Sorensen, President of Aergo Development Inc., third-party developer for the project, JWC technology was selected primarily for its reliability, following a comprehensive review of alternatives. Aergo, founded in 1985, focuses on airport properties, with experience constructing cargo buildings, aircraft hangars, control towers, in-flight catering kitchens, and ground support equipment buildings, as well as triturator facilities.

"I had experience with blue water triturators when I was in airline management," Don recalled. "I was familiar with a number of suppliers, and also was aware that some airlines chose to build their own."

“We needed a facility that could handle all of the various types of lavatory carts used by different airlines; that worked with a hose connection instead of an open grate, and led to a pit connecting to the sewer system; that offered quick and simple operation for airline employees; that had wall-mounted controls; and could be easily installed without special needs like air conditioning.”

“We also wanted the tug drivers to be able to pull up alongside without having to back up, and have very little dwell time there. As it turns out, in the first few months of operation, the airlines have been able to schedule their use so as to avoid waiting altogether.”

“In opting for JWC, we chose a technology that was a slightly more heavy duty than needed for the volume and types of solids and liquids involved, yet provided for the long-lasting reliability that we wanted, as did their reputation, which we had first-hand experience through our project manager, as well as other references. Their unit has been working smoothly, and we haven't had to call for any service.”

“We got further reliability from the simplicity of the design, which allows us to have confidence that almost all the components can be maintained and replaced locally if necessary once the warranty is up.”

The on-site operator for the system—the firm responsible for cleaning and servicing airplane lavatories—reported satisfactory results.

“It’s a very workable and simple to operate system,” noted John Cherne, station manager for DAL Global Services. “It functions better operationally and is more sanitary than the previous one.”

After two years of operation David reports the system is working well and the airport is still pleased with it.

Here, the Monster Airport Receiving Station is set-up, ready to connect to the airport tugs and quickly remove blue water unloaded from incoming airplanes.