

PROJECT PROFILE

An Affordable Wastewater Solution for Commercial Properties

SPACEPORT AMERICA, NEW MEXICO

Problem To meet its targeted opening in 2011, the world's first commercial spaceport needed a wastewater system capable of handling highly-variable flows in a very remote location in the New Mexico desert.

Solution Spaceport America selected an AdvanTex® Treatment System to service its vertical launch pad, terminal/hangar facility, and maintenance building. The system will handle volumes ranging from a few hundred gallons per day, during standard operations up to 30,000 gallons per day during large Spaceport events.

Huge Flow Variations No Problem for AdvanTex®

Built upon remote desert sands in New Mexico, the world's first commercial spaceport was dedicated in October, 2011. From the Spaceport, tourists and researchers alike will be able to travel to the edge of space aboard a variety of commercial spacecraft.

The facility, called Spaceport America, boasts a 10,000-ft runway and a 110,000-ft² terminal/hangar. In 2009, Orenco was selected to provide wastewater equipment for the Welcome Center's utility system, as well



The world's first space terminal for tourists in New Mexico. Image courtesy of Spaceport America. All rights and trademark registration are the property of Spaceport America Conceptual Images URS/Foster + Partners.

as for the vertical launch pad and maintenance building.

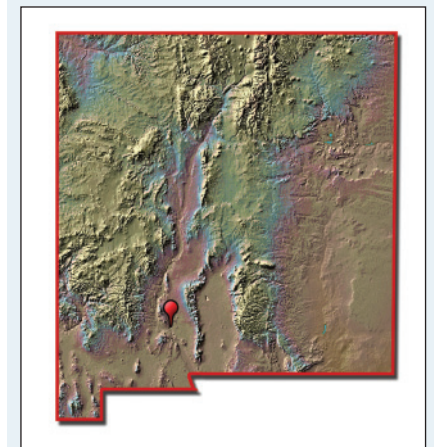
In designing the system, engineers from Molzen-Corbin and Associates had to consider the highly-variable expected flows. Under normal operations, the system will see just a few hundred gallons per day. But during occasional Spaceport events, the system needs to handle up to 30,000 gallons per day.

Orenco's Colorado dealer Roger Shafer, SCG Enterprises,

Commercial Market

Project Overview

SPACEPORT AMERICA, NEW MEXICO



Start-up Date

- December 2011

Design Targets

- Up to 30,000 gallons/day
- As few as 300 gallons/day
- Up to 4,000 visitors/day
- LEED Gold Certification

Primary Treatment

- 60,000 gal. primary tankage
- 10,000 gal. equalization

Secondary Treatment

- 10,000 gal. anoxic tank
- 20,000 gal. recirc tank
- 8 AX100 AdvanTex pods
- TCOM telemetry controls

Dispersal

- 20,000 gal. discharge tank
- Drip dispersal fields

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worked with the engineers to put together a design that includes flow equalization, primary and recirculation tankage, and eight AX100 AdvanTex pods.

Effluent will be dispersed over a very large area to minimize nitrogen loading. Some of the clear effluent will even be reused to control dust along the desert roads, offsetting the usage of potable water.

A TCOM telemetry control panel has also been installed, allowing the operator to monitor and adjust the system remotely from office or home. The system can be configured to page the operator in the event of an alarm.

Spaceport America is aiming for LEED Gold Certification. Orenco is proud to be a part of another LEED project.

For more information about AdvanTex Treatment Systems or to submit a project inquiry with our engineers, visit ... www.orenco.com/systems



Eight AX100 pods treat widely-varying flows up to 30,000 gpd. Photos courtesy of SCG Enterprises.



The wastewater system is controlled by an Orenco TCOM™ custom control panel. Photos courtesy of SCG Enterprises.

For more information about effluent sewers, Orenco Sewers™ and AdvanTex® Treatment Systems, contact Orenco Systems®, Inc.

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Data used by Orenco to derive the representations and conclusions contained within this Project Profile were current as of December, 2011.