LaJunta Tribune,
Wednesday, March 18, 2009

Rocky Ford, Colo. -
Demand for clean water is rising just as access to safe drinking water and sanitation remains inadequate, officials from the United Nations said Monday during the first day of a global water forum in Istanbul, Turkey.

Jack Barker didn't have to travel halfway around the globe to hear about the plight of villages in developing nations because he sees it first-hand on a regular basis and his Rocky Ford company, Innovative Water Technologies, is tackling the problem every day.

Barker opened IWT last year in the warehouse on the west edge of town that once was used to sew blue jeans. The company is installing 31 solar-powered Sunspring water purifiers, which can produce as much as 5,000 gallons of pure water per day, in villages in the Democratic Republic of Congo. Barker just returned from a trip to Haiti, where he installed the first Sunspring in a slum area on the outskirts of the capital city of Port-a-Prince and demonstrated it to a group of about 200 onlookers, all of whom clamored for a drink of pure water.

"You can find mints a lot easier than a pure glass of water in Haiti," Barker said. "The people there usually pop a mint in their mouth before they take a drink of water to mask the nasty taste." Barker received a letter from a man in Kochi, India, who requested four Sunspring purifiers to serve a hostel, orphanage, school and adult job training center. The man had seen the positive results after the first Sunspring was installed in India 17 months ago. He offered to come to Colorado and learn all he would need to know to install and operate the self-contained, solar-powered IWT system.

"Now that we understand the success of the system, we have made the installation of these systems in the other orphanages the cornerstone of our work in each," the man wrote. "Without clean water, our work at improving the health and living conditions of these girls and young women will only be incremental. With the systems, we can make huge strides improving their lives - both physically and mentally."

Words like these drive Barker, his wife, Carmen, and the 13 IWT employees to press onward with a mission to improve the lives of countless millions in far corners of the globe.

The Sunspring, an alternative microbiological water purifier, though, has just as many applications in developed nations like the U.S. as it does for the undeveloped places around the globe. Together with a new Ultra-Filtration package water treatment plant, which he said will eventually be able to produce 100,000 gallons a day; Barker sees great potential for IWT, both at home and abroad.

He has already sold four IWT UF Series package plants in Colorado, including two at ski resorts, where adherence to federal safe drinking water standards is a must. Besides the U.S., Haiti, India and the Congo, IWT water purifiers have also been installed in Mexico. He is bidding on jobs to install IWT plants in four states: Colorado, Utah, Montana and Oklahoma. And he is building

package water treatment plants for public water systems near Durango and Fort Collins. When asked to list some of the uses he foresees for Sunspring and the IWT Ultra Filtration Series, Barker rattles off a long list: campgrounds, RV parks, state parks, national parks, emergency response events (such as post-hurricane or post-tsunami recovery), gas, oil and construction sites, marinas, golf courses, military training areas, small towns, areas and many more. But Third World orphanages, hospitals, refugee camps, slums and the like, where the need for pure water is greatest, are always at the top of his list.

For Rocky Ford, the IWT plant could soon be one of the city's primary employers.

"I really think that by Christmas this year we'll have 30 to 40 employees," he said.

Business is coming to IWT from many directions, including the Internet, from trade shows he attends, from the company's small sales staff and by word of mouth.

"We have kind of a niche market here. Most of the (water purification) systems here in Colorado are small systems," he said. "I think our Sunspring would be perfect for the national parks and state parks, and all the other types of parks and campgrounds in this state."

But it's the bigger picture - one in which people are dying on a daily basis from lack of clean water - that tugs at Barker's heartstrings.

"Up to half of the hospital beds in the world are occupied by people with water borne diseases," Barker said.

Often missionary groups teach villagers in remote lands how to make a clay pot that drips water and can produce fairly clean water - one cup at a time. But this method doesn't usually filter out the smallest biological contaminants.

"We wanted to develop something significant, and 2,000 to 5,000 gals a day in a developing nation is a lot of water," he said.

Plus, the units are solar powered, solely by the sun, utilizing batteries to store excess energy for operation on cloudy days or at night. The Sunspring units feature both Ultra filtration membrane modules and photovoltaic solar modules. Barker, who has been in water business for 25 years, became familiar with membrane technology when it was first developed for small systems. The long, straw-like membranes filter water by allowing it to seep into millions of microscopic pores in the long strands, but the size of the holes prevents even the tiniest of pollutants, including bacteria, viruses and cysts, from entering the system.

The entire system, including a pump and 24-volt controller, is contained in an aluminum diamond plate cylinder, 24 inches in diameter and 92 inches tall and the entire package weighs just 500 pounds, which makes it easy to ship and install.

Although larger Ultra Filtration Series Package Water Plant might eventually become IWT's

bread and butter because of its potential for commercial or municipal use, Barker said placing Sunspring systems in developing nations and saving lives remains his greatest motivation.

"The toughest thing is getting the word out and letting people who could really help with that to know what we have and what we can do," he said. "In turn, it could provide a huge economic impact here."