

Bagram gets new storage upgrade

By Brenda L. Beasley

A multi-million dollar construction project is underway by the Afghanistan Engineer District at Bagram Airfield to improve the current bulk fuels storage system and supply facilities. It includes constructing multiple storage tanks, pumping facilities and facility control systems through an overall phased program while portions of the fuels system is in use by Bagram Airfield.

“Right now, the fuel is stored in bladders above ground,” said Dan T. McPherson, the resident engineer at AED’s Bagram Area Office and the chief of Hydropower Operations with the Tulsa District. “This new system will ensure that the fuel is properly off loaded and uploaded, and runs through the proper filtering facility for aircraft.”

Bagram Airfield is a militarized airport and housing complex located next to the ancient city of Bagram, southeast of Charikar in the Parwan province of Afghanistan that was once home to a strategic air base during the Soviet occupation of Afghanistan. It has multiple large hangars, a new control tower, and numerous support buildings and personnel quarters. There are more than 32 acres of ramp space and numerous aircraft dispersal areas, with a total of over 110 revetments.

The airfield itself is situated high up in the mountains. Bagram experiences a wide range of temperatures, anywhere from below freezing during the winter months to 120 degrees Fahrenheit over the summer months. Due to the elevation, orientation to the surrounding mountains, and snow storms, commercial

aircraft have difficulty landing older aircraft and often rely on very experienced crews to land there.

The new bulk fuel storage system is being constructed through a series of eight



An Afghan worker operates the drilling equipment at a bulk fuels storage site.



Outdated existing fuel bladder system at Bagram is being replaced with a newer, more modern system that will provide proper handling and treatment of fuel.



A containment area site gets prepared for the placement of a fuel storage tank at Bagram.

phases and is expected to be completed by 2012. Initial planning began in 2006 with a Tanker Truck Off-load Facility Complex and has evolved as the airfield missions and operational dynamics have changed and grown.

“I’ve had the opportunity to see this project go from paper to construction,” said Michael E. Curtis, a construction representative at AED’s BAO. “I was with the military and saw the customer side during the planning phase.” As an Army major, Curtis served as a sub-area petroleum officer for the Bagram Logistics Command from August 2006 to July 2007 while attached to the 475th Quarter Master



An Afghan worker grinds a section of the fuel pipeline.



Checking on contractor safety procedures at the fuel sties is part of a normal day for Construction Representative Michael E. Curtis.

Group from Farrel, Penn.

The current fuel system of bladders is a tactical system that is not designed to be permanent. The bladders have to be replaced every three years and a steel tank is more cost effective. “With a more modern facility, we’ll be able to off load fuel faster to the war fighter,” said Curtis, who’s been overseeing construction of the TTOF and the South Fuel Farm since October 2007.



Discussing newly installed pump house equipment with the contractor is just a daily part of Construction Representative Rocky A. Nelson’s day as he ensures contract specifications are being followed.

Although this winter has been mild, the wet weather conditions slow down construction, Curtis said. Having to get materials from truck convoys, since Afghanistan is a landlocked country, is also another obstacle when considering these complex construction endeavors.

Weather and materials are not the only obstacles that affect progress in Bagram.



An Afghan work cleans the tank at the bottom in preparation for leak testing.

Construction phases and schedules move so quickly that you have to stay on top of contractor operations constantly to ensure that all aspects of the contract are being met.

“The biggest challenge here is that we’re in a war zone and construction is very high speed,” said Rocky A. Nelson, a construction representative with AED’s BAO who oversees construction at the TTOF and the filtering facility. “My learning curve has two speeds ... fast and faster.”

The second biggest challenge is the language barrier. Most of the labor force is made of up local nationals who speak Dari or Pashto. The middle level on-site managers are made up of about five different nationalities. “The language barrier has not stopped us from

mentoring them and their work force in trade, craft and construction technique standards,” said Nelson. “Nor has it stopped us from learning from them.”

Of course, working near unexploded ordnances is no picnic, said Nelson. Safety is a number one concern. Accidents can happen no matter how much risk assessment is done. A 250-pound bomb and a 107-millimeter rocket from past conflicts have been uncovered since construction began.

Afghanistan is close to the heart of Nelson. Ever since visiting in 1974, he has made a commitment to volunteer and help rebuild the country. He’s been overseeing Corps of Engineers construction projects in Afghanistan since 2007.

The transfer of knowledge from one employee to another employee as people redeploy back to the United States is another challenge. “Our folks have done a good job of mentoring each other and mentoring the Afghan people,” said McPherson.

The continued success of the bulk fuels storage system construction is a direct result of the Bagram Area Office’s good work harmony. It’s also important to the war fighters. “Fuel is needed to fly missions,” said McPherson. “Not only will this new system be more modern and cost effective, it’ll also be almost 100 percent underground.” 🇺🇸