

95th Partners with National Guard to operate last Quarry in the Army



Backhoes dig out loose rock after blasting.

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FORT LEONARD WOOD, Mo. Quarries on Army posts are a dying breed. At one time most Army installations had large operations similar to the quarrying concern located at Fort Leonard Wood, Mo. But times have changed and within the past 20 years, the Active Component has closed most quarries and become reliant on private sector contractors to provide hard rock construction materials for installations.

At Fort Leonard Wood, though, things are different, thanks to an excellent working relationship between the Active Component, 95th Division Institutional Training (IT) and the Missouri National Guard (NG). Here, partnerships have created a ‘Win – Win’ for everyone.

“This is an Army National Guard (NG) quarry on an active Post,” said Sgt. First Class Lorain Curtis. “It’s a good concept and with everyone pulling together we can support any mission of the Army. Around post, we provide rock, gravel and building materials for roads, parking lots, concrete pads – just about anything that needs rock.

“The Army is phasing out the Active Component positions at the few remaining post facilities. Most just buy rock and sand from the private sector,” continued Curtis, course leader for the 62- G Quarrying Operations Course conducted at Fort Leonard Wood. “The post benefits from this valuable ‘home grown’ resource and by working together we are able to provide Military Occupational Skill (MOS) training for USAR and NG soldiers. We are training the soldiers to the standard. I just love doing what I do.”



Sgt. 1st Class Curtis

This year marks first time, though, that the Missouri NG has conducted their AT in conjunction with the 95th's school. The whole operation is spearheaded by an Active Component soldier (Curtis) and a hand - full of other select individuals. From the outside, thought, the operation looks seamless.

“We have three civilians with prior service – lots of expertise around here,” said Curtis. “The Missouri Guard’s 117th Engineering Company runs the dump trucks the Missouri 203rd has the equipment. It’s all rounded out by the 95th Division Engineering Battalion who operate the 62-G school. Its a pretty smooth system.”

“Right now, we have students from Texas, North Carolina and Missouri affiliated with the USAR and Guard,” said Staff Sgt. Robert Bosche. “In the current course we have nine students.” Curtis is quick to add, “As Army requirements dictate, we may put on three or more classes a year. I’ve taught my old people (NG) how to do the job as well as some 95th Division folks.

Curtis is a highly qualified instructor who has spent many years with engineering elements from the Missouri NG. Most recently, though, he has been with the 95th's First Battalion (Engineer), 95th Regiment, Third Brigade headquartered at Fort Leonard Wood. But, now he finds himself in a different role – he’s on active duty deployed to Fort Leonard Wood keeping this whole operation running smoothly.

When Curtis was activated, all he asked was, ‘Where and when do I go’. Curtis had a pretty good idea where his 62 - G skills would best be utilized. And by working with his Administrative Assistant, Mr. Jim Wills, and Command Sgt. Maj. Frankie Baza from the 95th's First Battalion, he figured he’d end up on this Hill.

“Jim Wills told me he needed to get a number of people and asked if I wanted to be involved,” he said. “Wills selected people he wanted for several engineering skill sets and Curtis was at the top of his list. “Well, they submitted a list of names and now I am on active duty. I reported on February 25, 2003 and I’ll be on through March 1, 2004; however, I may be extended another six months after my year is up.

“I knew I’d be coming here as an instructor. I missed the last war in 1991, and missed not being there. But, I feel obligated to do it {active duty deployment} for my country. Now, I am not in the war but I am supporting it and I’m proud of what I am doing. Some of these students will be over in the desert supporting the country in that capacity. We all have roles to play.”

In civilian life, Curtis was the environmental manager for Eagle Pitcher – a mining concern with operations in Joplin, Mo. However, he was laid off during the difficult economic times the area has experienced. When he was called up in February, he was working for Wall -Mart and even drove a school bus. “It was pretty tight but you do what you have to do for your family.”

To get more time on the equipment, Curtis splits up the work - load allowing students maximum amount of time on the equipment. One person on the drill one observes while another soldier works the controls.

The quarrying operation includes ‘the hill’ — where the rock is located – and the crushers. After it is blasted and removed from the hill the material is trucked down to the rock crushers. Large rock moves along a series of conveyor belts where it is dumped into the primary rock crusher. Some of the larger aggregate continues on to the secondary crusher where it is reduced down further.

It all starts up here”, he says pointing to the rocky terrain that resembles a moonscape. “First, we’ve got to get the rock out of the ground with drilling and blasting. We’re scheduled for a 2,000 - pound blast here on Friday.”

The Hyex multi-tool is a new piece of equipment in the Army inventory. Curtis and the soldiers say there is nothing else like it in the world. Built to Army specifications, the

Hyex can function as a rock breaker hammer and has several size bucket attachments. A separate drill can be added to further the machine’s capability. Built by a consortium between the John Deere Company and a French company, the Hyex is a pretty functional piece of machinery.

“For a 1,000 pound explosion, we drill 41-foot-deep holes spread out in a grid pattern that will maximizes the effectiveness of the blast, and load ‘em with M – 1 dynamite. We use a MDI (Multi Demolition Ignition) system but the old Det chords are still in the system and we teach all that stuff in our classes, as well,” said Curtis. “Students get to practice drilling lots holes before any explosives are set. This insures of good hands – on experience with the equipment. Then, we go to the hill.”



The Hyex multi-tool drills holes to set explosives

Soldiers ‘bag the holes’ to keep out dust or other material out. Holes are marked with orange pylons to delineate each blast hole. The dynamite charge is loaded the following morning in preparation for the big blast that will take place later in the day.



“We think safety around here all the time,” said Curtis. “In fact, for safety concerns the Army bought us all walkie-talkies so we can communicate – say someone gets hurt or something, we get help fast.”

After the blast, the National Guard’s 117th EN Company pitches in to transport the rock — in their trucks – to the rock crushing operations at the bottom of the hill. “We generate and crush the rock here with a 150 - ton crusher,” said Curtis.

“The primary crusher is used to make 1.5 - inch to 2-inch production rock while the secondary crushing unit can crush rocks to $\frac{3}{4}$ - inch or smaller,” said Staff Sgt. Bosche, who has been with the 95th Division for three years and hails from Springfield, IL. “We teach our students how to produce the rock and even how to wash the rock. If you need to make mortar you’ve got to use

clean rock – mortar won’t stick to dirt so it will need to be clean.”

The quarrying operation is pretty self – sufficient. A water source comes from two ponds right on site. And the whole system operates off a 125-kilowatt generator. It runs the belts, and crusher and any auxiliary equipment we might need.



The crushed rock is loaded into a dump truck

“The crushing site sits on a five-acre footprint,” said Curtis. “The Army could move this whole operation – it is set up to be mobile and transportable via truck or if they wanted to move it to Iraq, they could do that, too. ”It wouldn’t be easy and may take a week or longer to get everything disassembled, packed up and shipped out, but it could be done.”

The 'can do' attitude is contagious at the querying operation. Combining elements of the USAR, NG and Active Component elements has worked. According to Curtis, though, it all starts and ends with leadership.

"I continually get with the 95th's Sgt Maj. Frankie Baza and Mr. Jim Wills, and they are be big supporters of our mission up here," said Curtis. "They help me get spare parts that I might need or other stuff – they are can do guys who want to help me make sure this operation runs smoothly."