

Army facing \$10 million to \$80 million groundwater remedy

By Pam Sohn, Staff Writer, Chattanooga Times Free Press

What may look like a massive mudpie-making process actually is an unusual pollution cleanup that nearly is complete at the 6,000-acre former Volunteer Army Ammunition Plant.

"There are good things going on there," said Nancy Boisvert, the Tennessee environmental regulator in charge of the 20-year, \$85-million cleanup of the defunct explosives plant where TNT was made for World War II, the Korean War and the Vietnam War.

But even as long-armed scoops "stir" excavated dirt mixed with water and caustic soda to prompt chemical reactions and break down the soil pollutants, Ms. Boisvert and Army contractors are considering how to take the next and last clean-up step of decontaminating the groundwater.

That step could cost the Army an additional \$10 million to \$80 million, depending on what method is chosen, she said.

The most costly approach would be digging out the source of the pollution to bedrock, sometimes 80 feet down, she said. The least costly method would be an injection of biological organisms to "eat" the pollution, but that would take as much as three years longer than the target 2009 completion date for the work, she said.

"We'll be making decisions on that in 2008," she said.

Soil cleanup on the site should be completed by summer, according to officials.

Hamilton County Mayor Claude Ramsey said he is pleased with the summer end date for the work on the Tyner area property next to the county's 1,600-acre Enterprise South industrial park.

"It's been long in coming," he said, noting that the Enterprise South megasite never was contaminated. "Since 1994, that's what we have been trying is to get (the rest of) the VAAP site cleaned up."

When all the work is done, Mr. Ramsey said, county officials will add more of the former federal property to the Enterprise South industrial park in 10-, 15-, 20- and 40-acre tracts.

"That will make about 3,000 acres right in the center of the county that can be used for job creation," he said. "And that will be a good thing."

Mikael Spangberg, senior project manager for Tetra Tech, Inc., the contractor working to decontaminate the site, said workers have completed the so-called East Acid area where nitric and sulfuric acids were produced as components for TNT.

The work now ongoing is in what was called the TNT Valley, where the explosive was manufactured in long conveyor batch lines.

This cleanup will include the former redwater treatment area, where the batch lines were dunked in water when mixing reactions got out of control, officials said. The contaminated water was called redwater, and areas of soil where it soaked in also were contaminated.

Ms. Boisvert said the soil remediation process changed after contractors finished the East Acid area and suggested a more environmentally friendly cleanup method for the larger TNT Valley area.

"The contaminated soil was scheduled to be sent to a landfill, but the contractor may have found a treatment where they will be able to destroy the contamination on site," she said.

The present on-site cleanup consists of a football-field-sized pit, something not unlike an earthen mixing bowl where excavated soil, water and caustic soda are combined and constantly turned to prompt chemical reactions that break down the pollutants to harmless natural components, Army spokesman Scott Bolton said.

"This application (of on-site chemical cleanup) is kind of unique, and we're kind of excited about it," Mr. Bolton said. "We're actually destroying the contaminants."

Each cleanup batch takes between three and 10 days, depending on outdoor temperatures. When the "cooking" is done, the cleaned soil will be tested and returned to the holes from which it was dug, officials said.

Ms. Boisvert, the Tennessee Department of Environment and Conservation's division of remediation VAAP project manager since 2001, and Mr. Spangberg said the cleanup poses no danger to passersby or workers in nearby buildings.

Mr. Spangberg said cleanup crews wear pollution protection suits only when they are spreading caustic soda on the mud and it has not yet been stirred into the soil. The suits are to keep the corrosive substance off their skin, he said.

In the plant site's East Acid cleanup completed in September, the contractor did not use the chemical cleanup method. Instead, officials said, about 21,000 tons of contaminated soil was sent to a landfill elsewhere.

