Help Your Spoils Pass the Paint Filter Liquid Test

As a technical sales manager, I get asked with more and more frequency about problems associated with drilling spoils disposal. Most landfills will not take fluids. Now, we aren’t blaming the landfills — drill spoils containing free liquid can cause considerable damage to leachate collection and treatment systems, plus fluids can cause trucks and other equipment at the landfill to bog down. Additionally, most landfills consider the drilling fluids contaminated. Generally, the bentonite-based fluid wouldn’t be considered a hazardous product even with the additional additives and polymers needed in certain soil conditions. However, no one knows what the soil contains where the bore was done. Therefore, most landfills simply say no, or if they do have an area that accepts liquid they can charge as much as $1,300 for the dump!

This situation is not new, and we in the industry bump up against it several times a year. Some consider it a more “urban” area problem, but with increasing consistency I am hearing from contractors and distributors in rural areas as well. Most of us have run into this scenario several times. If not, consider yourself lucky, but chances are you will see it in the future.

Let me ask you a question: Have you ever been in a situation where you don’t have an agreeable facility to dump your liquid drilling spoils? What if you could just take your returns and, with very little time, effort placed on a common conical 60 mesh paint filter. If any portion of the sample passes through and drops from the filter in a five minute period, then the material is deemed to contain free liquids. Paint filters are inexpensive and available from many local paint stores.

CHOICES FOR CONTRACTORS

There are options for getting drill spoils to pass a paint filter test. The first option we will look at is centrifuge dewatering. In this system, we are separating the liquid from the solids in a mechanical fashion. Often, separation enhancement chemicals, such as coagulants and flocculants, are introduced into the drill spoils. These chemicals cause the solid particles to clump together, which aids in the separation process. The spoils are then fed into the decanting centrifuge that spins as high as 3,000 times the force of gravity, which separates the also add bulk and are labor intensive, which adds unwanted costs to the operation. The third option also involves solidification, but it uses a newer polymer-based solidification process. One such product available is a mixture of a non-biodegradable, powdered inorganic mineral and polymer. The mixture is used in the solidification of waste slurry that fails to pass a paint filter liquids test. This product can be poured into or across the surface of the waste slurry pit, stirred with a backhoe or excavator, or applied with soil mixing equipment. Depending on the solids content of the drill spoils, a small dosage of 2 percent by weight can be used. This will not add any significant bulk, so your landfill fees would not increase.

Another polymer-based solidification product is a granular, super-absorbent polymer that rapidly absorbs and retains aqueous matter. This spoils or fluids down the storm sewer system. Not only is it bad form, but it can also carry severe fines and the possibility of being arrested. I would much rather be in a position to say we cleaned it up properly by solidifying and hauling off!

Depending on your situation, you may find yourself in need of getting the “wet” out of your drilling spoils and trying for a more solid situation. No matter what type of drilling you do — vertical, horizontal, urban or rural — you may run into this situation. There is a solution. Check local regulations, explore options and be sure to factor these disposal costs into your projects. Remember, it is much easier to dispose of drill spoils that pass the paint filter test!