

A Glucose Tolerance Test And The Environmental Restoration Program

By Jim Holley

Some years ago, I had to take a Glucose Tolerance Test that entailed drinking a rather large bottle of sickeningly sweet, slightly viscous fluid somewhat akin to pancake syrup. After the first sip I thought it wasn't too bad. After the third sip the novelty had worn off. After the fifth sip my stomach threatened to rebel. After the eighteenth sip the bottle was finished, and so was I. My stomach was queasy and I could barely blink my eyes without setting off a gag reflex. The Medical Technician administering the test said, "That's amazing. I would probably hurl if I tried to drink that stuff in sips the way you did." I managed to use carefully executed body language to indicate interest in an alternative. He said, "Look, drinking that bottle of glucola is something you simply must do, so do it like you mean it! Tip that sucker up, drink it down in a couple or three big gulps and be done with it!" Well, after vowing never to take another Glucose Tolerance Test, I wound up doing it anyway a few years later. However, I took the Med Tech's advice, and it worked like a charm.

In the past, Environmental Restoration Program (ERP) sites were handled the way I handled my first bottle of glucola. We knew what we had to do to investigate and cleanup ERP sites. But rather than do whatever it took to finish the job quickly, we worked them in small sips until we are, figuratively if not literally, sick of them. Each project and each work effort was designed to complete a single phase, and in some cases sub-phases within a single phase of the overall program. We would mobilize a field crew, drill a few monitoring wells, take a few samples, demobilize the field crew, and wait for the analytical results. Four months later we would show the data to the appropriate environmental regulatory agencies and ask, "Now what?" If data gaps were identified, we would mobilize another field crew a year or two later to collect more data to fill the gaps prior to moving to the next program phase. After so many years of experience dealing with environmental investigations and cleanup, one would think we could avoid getting lost among the pieces and parts of the ERP.

That is what the Triad initiative developed by the Environmental Protection Agency is all about. Triad is a strategy that consists of three basic components that revolve around a central control mechanism. I like to visualize the functional diagram in the form of a three-bladed propeller. The central control mechanism or propeller hub is the Conceptual Site Model (CSM). The three blades consist of Strategic Planning, Dynamic Work Schedules, and Real-Time Decision Tools.

For example, at Avon Park Air Force Range in Florida, we are using an old Civil Engineering Contractor Storage Yard called site SS-100 as a Triad pilot project. This site was operational from near the end of WWII until the early 1980s. Based on a vast amount of experience at similar sites, we know there is a high probability of contamination, and this site may need cleanup. We designed our CSM to show us everything we know or suspect about the site, along with everything we don't know and need to find out. We then mapped out an investigation work effort designed to answer all of the questions required to proceed with cleanup in, if possible, one field mobilization. This is accomplished using real-time decision tools, such as sub-surface sensing equipment, mobile laboratories, and field analytical kits that generate analytical data in minutes rather than months. In addition, we continually update our CSM as new information becomes available, and make our decisions for additional sampling, cleanup, or closeout on the spot while the work crews are still in the field. Using this method, we anticipate a Record of Decision for site SS-100 in a matter of months rather than years.

Triad is not for the inexperienced or faint of heart. It takes know-how and leadership. Air Combat Command has plenty of both, and that is why Triad will work to save the Air Force time and money in execution of the ERP.

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