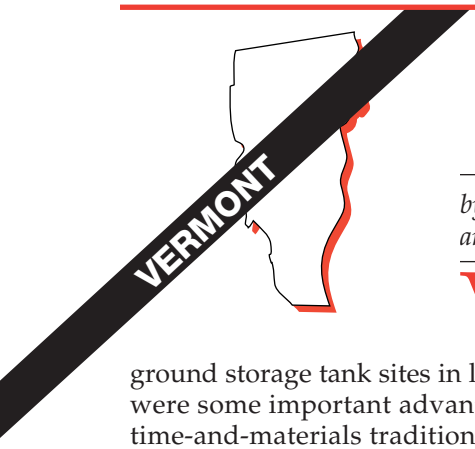
Investigation and Remediation

More PFP Stories



A Funny Thing Happened on the Way to the PFP Cleanup

by Chuck Schwer and Richard Spiese

Vermont headed down the PFP cleanup road for leaking underground storage tank sites in late 1999. We believed there were some important advantages to changing from the time-and-materials tradition to a PFP arrangement. We liked the shift in risk from the state cleanup fund to the consultant, and with this risk also comes the best incentive—cash—to cleanup the site in a timely manner. We liked the thought of getting away from the time-and-materials mentality for which ever-changing site conditions necessitate ever-changing scopes of work and budgets. We also liked the idea that PFP offers a tremendous reduction in the amount of paperwork needed for submitting claims against the cleanup fund.

No longer would we need detailed monthly invoices that require of us such tasks as comparing the submitted invoices with the preapproved workplan, checking for

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proper documentation of subcontractor work, and checking for proof of payment. This would mean that our technical people could spend more time on science and less on accounting.

Vermont currently has ten PFP agreements signed: seven were negotiated and three were bid. So far, all the projects seem to be progressing very well with one site already having reached all but the last milestone. We found that negotiating was more time consuming than we originally planned, but with experience, the process has been improving. We're feeling very positive about going down the PFP road, especially since we discovered two rewards that we weren't anticipating—clearer goals and better remedial systems.

Clearer Goals

In our negotiation of the seven agreements reached so far, considerable time was spent on establishing clear cleanup goals. Although it can be argued that we had clear goals under time-and-materials cleanups, there is no question that PFP has forced both our staff and the consultant to be much more specific about the goals, and for good reason—payment is based on reaching these goals. In a few instances we had to rethink a goal when it became clear that the cost to attain the goal outweighed the benefit. The result is a much more focused cleanup with a clearly defined endpoint.

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Better Remedial Systems

The second reward of PFP that we didn't expect has been the quality of the remedial systems installed to date. The remedial systems at the PFP sites have been some of the most well thought out and designed systems we have ever seen. We are seeing a new order of system flexibility and remote monitoring capabilities. The consultants have really put their minds to the task. It's their risk, and they want to make sure they do the absolute most they can do to minimize it.

How About This?

In the case of one site, the Moretown General Store, the consultant built in many features to the remedial system (a soil vapor extraction/air sparging system) to maximize system flexibility. For example, he put in twice as many remediation wells than the feasibility study indicated were needed. In this way he could focus on a "hot spot" of contamination with a maximum of remedial resources. He used two 2-horse and one 4-horse power vapor extraction blowers instead of one 5-horse power blower. He put the eleven sparge well points on timers, using one small blower to operate the system (instead of one large 15-horse power blower operating all spargers at once, which is more typical). He set up a 300-standard cubic feet minute catalytic oxidizer to allow replacement with carbon.

The strategy is to allow flexibility of the system to remove or replace system components with less expensive components or to allow the system to use less power during system remediation, thereby decreasing the overall cost of system operation.

Other improvements of this PFP system over other systems include:

- Putting all remedial components that need to be explosion proof (because of the possibility of coming into contact with petroleum vapors) on one side of the remedial shed (the XP side of the shed) and putting nonexplosion-proof equipment, such as switching and controls (much cheaper than the explosion proof ones), on the other side of the shed.
- Clearly labeling each and every part of the remedial system so that whoever responds to the site to perform maintenance knows exactly which system component he or she is working on. (Under time and materials it really doesn't matter if consultant technicians responding to the site can't fix a problem or take several extra hours to complete system maintenance, they get paid. Under PFP, this is money out of the consultant's pocket).
- Putting system operation lights on the outside of the shed, so that if one of these lights is on, the facility operator knows to call the consultant and report which lights are on. In this way the consultant has some idea before reaching the site what the problem might be.
- Using a field GC to monitor the progress of the remedial system. For milestone success to be shown, the PFP agreement requires lab analysis. However, the consultant often took samples and had them analyzed by the field GC to see how to improve system performance and to determine when to take milestone samples before the required quarterly sampling rounds.
- Scheduling site monitoring to coincide with other jobs in the area. In this way, travel, man-hour, and equipment costs are shared reducing the overall cost of monitoring.

All of these system construction and operation improvements may not have happened were it not for PFP. The desire and motivation of the consultants to improve system performance, thereby maximizing profits, seem to bring forward innovative ideas at every PFP site.

Overkill you think? If you are satisfied with the price for the cleanup, do you care? Priority one is getting the site cleanup completed, and, so far, the remedial systems in Vermont under PFP are kicking butt! ■

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