Investigation and Remediation

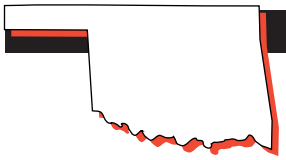
Getting Results, PFP Style

Pay for performance (PFP) is a common-sense approach to LUST site cleanup. Payments are made as contamination levels go down and cleanup goals are achieved and maintained. The price, interim payment milestones, contamination-level goals, and time limit for reaching the goals are all firmly fixed at the beginning of the cleanup and not changed thereafter. Contaminant reduction is measured carefully. "Escape clauses" are written into the contract that can release the contractor if the need arises (e.g., a faulty site characterization or a new release).

Within the PFP framework, there are significant variations on how states price their PFP cleanups. Prices may be set by award to the lowest-price bid submitted in open competition among qualified contractors or by negotiation with the contractor. Oklahoma, South Carolina, and Florida—all PFP pioneers—have been pricing their PFP cleanups using different methods. Oklahoma state staff negotiate a price with the cleanup contractor. South Carolina conducts competitive bidding and awards the cleanup to the lowest bidder. Florida has experimented with both negotiation and bidding and has also awarded "bundles" of multiple PFP cleanup sites for one total price. And predictions that lowest-bid contractors would produce shoddy work have not proved true.

The leadership of these states and the success of their PFP cleanups offer a wealth of experience that others can adapt in developing their own PFP initiatives. These states are finding that their PFP cleanups are typically less expensive and environmentally effective, conclude in the expected time, and spur innovation in cleanup technology and management by contractors.

The following three articles shed some light on the Oklahoma, South Carolina, and Florida PFP programs. PFP is a work in progress. Support for developing a state PFP program is available through OUST/EPA Regional Office representatives.



Oklahoma

After Some PFP Growing Pains

Oklahomans Realize PFP Benefits

by Richard McKay

Any state starting a performance approach to remediation will go through some growing pains. For the smoothest transition possible, those involved must accept that remediation programs will undergo a paradigm change. Leaders, technical groups, and accounting staff must think outside their traditional time-and-materials program models.

The growing pains can be intensified if the regulatory and fund groups work independently. In our experience, the ideal arrangement is to have a technical staff with both regulatory and fund authority. When one department is managing the technical and financial aspects of a case, a consistent message is projected to consultants and tank owners, and the potential for having a case slip between the cracks is reduced. If this setup is not available, a spirit of cooperation between all parties is required.

Regulators, fund groups, and consultants are all entrusted with the responsibility to protect human health, safety, and the environment and to ensure that cleanup funds are spent effectively. These purposes will be undermined if the parties involved do not consciously work together toward a common goal.

Statutory Roadblocks

Although statutes may not specifically provide or allow the authority for a state agency to enter into performance-based cleanup contracts, this omission may not necessarily be an obstacle. Recognizing that the concept of performance-based cleanup contracts made a lot of sense, the Oklahoma Petroleum Storage Tank Division (PSTD) implemented a pay-for-performance (PFP) program in 1996 on a voluntary basis. The necessary forms were created, several contracts were signed, and the remediation systems were installed and implemented.

Despite challenges to our statutory authority, the performance-based reimbursement program prevailed. There were some parties, however, who felt specific authority was needed. Thus, with the full support of the state's petroleum marketers, statutes were passed in 1998, mandating that all work be preapproved and empowering the authority to enter into preapproved purchase orders and performance contracts. The rules were revised to make the preapproval process mandatory. Now all site work must be preapproved and most site remediation is performance based.

Benefits of Pay for Performance

Oklahoma's PFP program provides benefits for the environment, for fund protection and management, and for claim processing. These benefits include the following:

- Consultants now install better-designed remediation systems. Thus our most difficult sites are being cleaned up, and all site cleanups are progressing faster.

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- Consultants must guarantee results, and no payments are made until incremental goals are attained.
- The flow of fund money is manageable, because remediation costs are fixed and controlled through negotiation and the use of TankRACER software. We are thus able to encumber preapproved site remediation monies in predictable amounts.
- The time it takes to pay claims is shorter, and there are minimal disputes over reimbursements and disallowances. Disputes over reasonable prices are eliminated.
- Minimal claim support documentation is required, minimal erroneous or questionable documents are received, and payment for work that is not performed is eliminated.
- Collaboration between the tank owner, the consultant, and the state has improved so that tank owners are more likely to view the agency as an advocate than as a headache.

Oklahoma's PFP program has shifted the consultants' focus from keeping cases open on a time-and-materials basis, with little incentive to close a case, to achieving results to make money. As a consequence, the rate at which groundwater benzene concentrations are reduced has changed from a small, slow decrease over several years to a large decrease within a few months.

For example, in cases where contaminant reduction milestones have been achieved, on average, the 25 percent milestone has been achieved in 6 months, 50 percent in 8 months, 75 percent in 11 months, and 100 percent in 16 months from baseline concentrations measured prior to system start-up. In each case, the consultant signed a performance contract guaranteeing results in three to five years from system start-up, and the existing remediation system was replaced by an entirely new system. None of the previous systems had been able to maintain contamination levels below site-specific cleanup levels, and most showed very little progress.

Under PFP, the consultant guarantees that the soil and groundwater readings in the remediation area will be below cleanup levels for all chemicals of concern (COCs) before the system can be turned off, and the readings must remain at or below site cleanup levels for six months before the final contract payment is made. When we convert a time-and-materials site to PFP, contamination levels typically drop suddenly, rebound somewhat, and then continue to decrease.

Changes on the Run

The PSTD has gone through several episodes of growing pains since implementing its program in 1996. Our experience with writing performance contracts has helped us close a number of loopholes. For example, system design was initially not specifically itemized as part of the final cost. One consultant contested this policy, so we changed our guidelines.

We have received many ideas for program revisions from consultants—in the spirit of cooperation—to improve the contract, rather than take advantage of an omission. By keeping an open mind throughout this process, our agency has had the opportunity to learn from its mistakes, as well as from people outside the agency, such as consultants and their attorneys.

Through our experience, we've incorporated many important defining points into our performance contract, including the following:

- Items that the contract price includes or excludes;
- The remediation system warranty area;
- Fair and reasonable payment terms;
- Which party takes responsibility for damages caused by the tank owner or his or her employee;
- The situations that will allow the contract to be renegotiated (i.e., secondary release, continuing release, or migration of a plume onto the site);
- A provision that ensures continual system operation;
- Appropriate penalties if a consultant abandons remediation activities prior to termination of the contract;
- Points at which to take baseline samples;
- Lab analyses that should be run, schedules for sampling wells, and conditions under which the consultant will be able to change labs during the course of the contract;
- Ways that reduction payments are related to BTEX concentrations and the method of calculation;
- The method for measuring free-product reduction; and
- A sampling protocol to qualify for reduction payments, reserve the agency's right to verify all sampling data, identify key monitoring wells and compliance monitoring wells, and determine a reasonable period to monitor for rebound once all wells are below cleanup levels.

The term of a PFP contract varies based on site-specific conditions, the chosen remediation technique, and the operating history of similar techniques. For example, after writing several contracts, we found that in clay-rich soils, the time it takes to achieve the final 25 percent reduction can be longer than the time it takes to attain the 75 percent reduction milestone. To compensate for this slowdown, many of these performance systems have been enhanced by localized dig and haul operations, additional remediation wells to increase well density, the introduction of nutrients to increase bioremediation, or the introduction of oxygen-releasing materials. The state also allows a PFP system to be modified from the original scope of work, provided that modifications are performed within the terms of the contract and at no additional cost.

Without the ability to make these modifications, the consultant risks leaving up to 40 percent of the performance contract on the table. Keep in mind, there are also sites where the 100 percent milestone has been achieved six months after start-up, leaving the consultant with 2 to 2 1/2 years of operation and maintenance money as pure profit. These cases create an established history from which the agency can learn what a reasonable remediation time frame should be and apply that lesson to future

contracts. Although system performance varies, the consultant must ultimately achieve the final goal in a reasonable time frame and deliver a site that is ready to be monitored for closure.

Negotiating a Fixed Cleanup Price

One of the primary objectives of PFP cleanup is to achieve results at a reasonable price. Cleanup prices can be set through negotiations and/or bidding. Since the program's inception, Oklahoma has used a customized price build-up computer program, TankRACER, to determine a reasonable price. Detailed printouts from TankRACER are used as support documents for negotiating a final contract price with the consultant. Through this negotiated procedure, we have saved a total of $875,000 over the consultants' original proposals, which can then be used for characterization and restoration work on other sites. Typically, the TankRACER price varies by only 4 percent, on average, from the final contract price, and assures all parties that the final negotiated price is reasonable.

Reasonable Cleanup Goals and Price

Cleanup goals have a direct effect on the performance remediation price and are commonly based on a category system, a maximum contaminant level (MCL), or a tiered risk assessment. Oklahoma changed from a category system to a tiered approach in 1996, allowing more reasonable and achievable site-specific cleanup goals that are protective of human health and can be attained at a reasonable price. Based on this tiered approach, the consultant guarantees that soil and groundwater will be remediated to site-specific cleanup goals at a negotiated price that includes all remediation costs. Today the average performance site remediation price using air sparge and soil vapor extraction techniques is $498,000 for a 26,500 yd^3 plume or $18.80 per yd^3.

Had we utilized a risk-based program to determine reasonable cleanup levels and instituted a performance program from the inception of our tank program, we estimate we could have saved as much as $6.48 million on just 41 sites that were changed from time and materials to performance. This savings assumes that each site moved from site assessment directly into PFP remediation. These cases represent a small portion of the sites that require remediation. The economic consequences of not instituting programs to determine site-specific cleanup goals and a reasonable site remediation price could be substantial.

Since these changes were instituted, we have been able to prioritize each site, use better budget controls, and move the worst sites more quickly toward implementing corrective action. In addition, the consultants are now more inclined to develop and use remediation techniques that are faster, more efficient, and more cost-effective. ■

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