LUST cleanup fraud and abuse have been estimated to consume 40 to 60 percent of aggregate annual spending by UST cleanup funds. As a result, some cleanups have to be deferred for lack of money. Attempting to increase cleanup spending without conspicuous environmental results may even result in cuts in cleanup funding. In two previous articles (LUSTLine #30 and #31), we discussed issues of fraud and abuse of petroleum cleanup trust funds and suggested a variety of approaches for dealing with fraud and abuse:

- Whistleblowers/abuse hotline
- Audit hit teams
- Global tracking software and pattern detection software
- Database of norms
- Interstate list of abusers
- One strike and you’re out
- Expanded penalties for fraud (Go directly to jail. Do not pass go.)
- Fixed-fee services/pay for performance

In this article, we’ll focus on the last item—pay for performance (PFP). We’ll look at PFP as a tool to deal with fraud/abuse and examine how PFP can, itself, be abused.

**PFP as a Tool to Prevent Fraud and Abuse**

In PFP, the cleanup consultant or contractor (we are using the terms interchangeably) performs the site cleanup with a minimum amount of supervision and is paid only when agreed-upon cleanup milestones have been accomplished. The contractor is given considerable latitude, within the regulatory structure, to engineer and implement the cleanup. PFP is based on the principle that, given sufficient latitude and financial motivation, consultants will perform cleanups with greater efficiency, speed, and effectiveness. Data from more than 300 PFP projects in progress or completed have confirmed this expectation. The contractor is given considerable latitude, within the regulatory structure, to engineer and implement the cleanup.

The invoices for PFP payment usually amount to just a few sheets of paper accompanied by a brief technical report that verifies the results. This reduction in paperwork, alone, is an enormous administrative benefit compared with the detailed reimbursement applications that are typical of many trust funds.

**A Typical Time and Materials Cleanup Rip-off**

The Simpson Consulting Company is located in the Town of Springfield. The company is in the process of cleaning up 10 LUST sites (currently doughnut shops and formerly gasoline stations), all located in Capital City, 100 miles east of Springfield. Mr. Simpson goes to Springfield once a week to check on all 10 operating remedial systems. The trip requires 4 hours total driving time and 30 minutes at each system—a total of 9 hours. But instead of requesting reimbursement for 9 hours, Mr. Simpson requests a reimbursement from the trust fund for 45 hours by billing for the round-trip travel time of 4.5 hours plus the on-site time for each site—a total of 45 hours. This discrepancy between actual time spent on the task, 9 hours, and billed time, 45 hours, is abuse of the fund.

To prevent this kind of abuse, the trust fund administrator will have to implement sophisticated and time-consuming procedures, which may include the following:

- Preapproval of all expenditures
- Unit rate rules and tables
- Thorough paper audits
- Field audits
- Third-party review

None of these procedures would be entirely effective against this abuse without significant management oversight to actually account for the site visits.

**How PFP Prevents Typical T&M Billing Rip-offs**

PFP prevents rip-offs associated with time and materials (T&M) billing, because it pays only for demonstrable and verifiable environmental results. Under PFP, how many sites Mr. Simpson visits on his weekly trip to Capital City has absolutely no bearing on how much he will be reimbursed. Under PFP, it makes no difference how often Mr. Simpson visits Capital City, as long as he visits sufficiently often to meet the applicable regulatory reporting requirements.

If Mr. Simpson chooses to visit a site daily because he wants to run the system as efficiently as possible, that is his business decision. Under PFP, he is more likely to visit the site according to an optimal remedial schedule rather than maximize his visits to maximize his billing under a T&M reimbursement or preapproved schedule. PFP eliminates the potential “gang visits” and “overutilization” abuses “that flesh is heir to”
with no requirement for intervention or oversight from the regulator. PFP can also minimize other types of fraud and abuse. (See the LUSTLine #30 article, “Fraud and Abuse: What State Cleanup Funds Can Learn from Medicare,” by Bob Cohen for a discussion of the various types of fraud and abuse.)

Controlling Performance Fraud and Abuse in PFP

PFP is certainly not free from potential fraud and abuse. However, there are fewer opportunities for abuse, and abusers are easier to catch and prosecute. The controls for fraud and abuse under a PFP cleanup are simpler and easier to implement than those needed in a reimbursement or preapproved cleanup. In addition, the controls to prevent or document fraud or abuse in PFP cleanups are aligned with measuring results and not with adherence to a process. Nevertheless, there are several ways the unscrupulous may try to test the reimbursement system in PFP cleanups.

In the PFP world, for example, there may be a temptation to understate the contamination, inasmuch as it could accelerate the payment schedule. Conversely, in the T&M reimbursement world, there may be a temptation for the consultant to overstate the concentrations of chemicals of concern during remediation—the greater the contamination, the longer the system can operate (e.g., pump and treat annuities).

Taking PFP baseline contamination-level measurements just before the treatment is initiated forestalls another type of reimbursement abuse. Because PFP payments are triggered by contamination-level reductions, a contractor might profit handsomely by postponing active remediation and allowing natural attenuation to reduce levels enough to trigger a performance payment.

One of the very first PFP agreements in the early 1990s did not have a procedure for establishing the baseline at the commencement of remediation. After the cleanup contract was signed, a six-month delay ensued because of legal issues. Upon commencing the job, the consultant sampled the monitoring wells, declared the site clean, and requested his $200,000 payment—natural attenuation had completed the job for him. This type of abuse can be prevented if the cleanup fund establishes the baseline for the percentage-reduction payments just before the treatment system begins operation.

Deliberate fabrication or distortion of contamination-reduction data may also tempt PFP contractors. The potential for this type of fraud and abuse has been a concern in Florida, South Carolina, and Oklahoma, the three states that have significant experience in PFP programs. Fortunately, the trust funds and environmental agencies in these states are well equipped to deal with this situation. The personnel are predominantly scientists and engineers, who are fully capable of verifying field results. By splitting samples between the state and the consultant, the potential for fraud is kept in check. Laboratories used to analyze the samples should be different and both should be independent of the cleanup contractor.

Unannounced site visits can also deter cleanup abuse and fraud. In one state, at one of the earlier PFP sites, there was an alleged incident in which it appeared the contractor was attempting to distort forthcoming data samples. The consultant was cleaning up using a massive air sparging technique. The consultant notified the state that he planned to do a milestone-sampling event on a Wednesday. Because of a misunderstanding, the environmental agency technician arrived at the site on Tuesday. He found the consultant air sparging all the monitoring points. Needless to say, this practice was quite unacceptable.

Some treatment technologies may be applied in ways that move the contamination away from the performance measurement points. This strategy may make the contamination levels decline to trigger performance payments, but it does not reduce the contamination; in fact, it can make it worse by spreading it to uncontaminated areas. To prevent and check for this event, PFP agreements authorize the state or implementing agency to install supplemental wells and borings, at its discretion.

EPA’s 1996 PFP guidance document (a new revision is due in March) recommends that the state split samples with the consultant at critical and final milestones and that the PFP agreement allow the installation of supplemental wells and borings by the state. This provision will, of course, create some additional administrative burden for already overly stressed state agencies. Nevertheless, the experience of those states using PFP technology has proven that this burden is more than compensated for by the reduced administrative overhead of PFP.

Controlling Pricing Fraud in PFP Cleanups

There are two broad models for setting the prices of PFP contracts: competitive bidding and negotiation. Both present different opportunities for abuse or fraud in setting PFP cleanup prices.

In the bid model, best exemplified by the South Carolina program, using information from a state-approved site characterization, consultants will bid a PFP price. The low bid sets the cleanup price. On state-led cleanups, the lowest bidder is awarded the job. On owner-led cleanups, the lowest bid sets the maximum price the state will reimburse. This provision will, of course, create some additional administrative burden for already overly stressed state agencies. Nevertheless, the experience of those states using PFP technology has proven that this burden is more than compensated for by the reduced administrative overhead of PFP.

Strict adherence to fixing the maximum reimbursement at the amount of the lowest bid prevents an opportunity for kickbacks from the contractor to the owner in consideration for selecting a higher-priced contractor. For example, unless the lowest bid sets the cleanup price, the owner and the contractor could privately agree that the contractor would share the profit of the higher-priced cleanup.
Covert collusion between contractors is a time-honored way to subvert any competitive bidding process, especially to raise prices the state pays. Many states have customarily required owners to get three bids on owner-led cleanup work. Often the perception that the owner will choose a known contractor that he or she is believed to favor already deters the submission of bids. An empirical study shows that three-bid procedures produce much higher prices for comparable cleanups than do public, statewide-advertised invitations for bids. Open competition in bidding that draws more contractors into the competition is a very good way to deter private contractor collusion to raise cleanup prices.

Under PFP, whether the state or owner leads, the contractor must reach the cleanup goal within an agreed-upon time frame. That time frame is based on the use of fate and transport models to predict receptor impact. Performance bonds may be required to assure completion. Without such a time frame, the contractor might be motivated to in fact or in effect walk away from a cleanup where recovery rates have flattened out short of meeting the cleanup goal. This abuse can be discouraged by requiring the contractor to post a performance bond or a declining letter of credit.

**Controlling Abuse in Negotiated PFP Cleanup Prices**

In the negotiated model, where cleanups of individual sites or groups of sites are negotiated between the state and the responsible party or consultant, there is more room for fraud or abuse, because the negotiated model is not tied in tightly to market forces. Following are some areas of potential abuse in negotiated PFPs and suggested controls:

- **Overstatement of the problem to inflate price offers** The consultant overstates the problem as presented in the assessment and thereby justifies a higher dollar amount in the negotiated contract. This situation can happen when the same contractor who does the site characterization also does the cleanup. One way to prevent this problem is to use a different contractor for each activity. This abuse is also discouraged if you assure that the site assessments are carefully specified and thorough and that final sampling events are witnessed and split sampled.

- **Overstatement of remedial efforts to justify high price offers** The contractor bases his or her price offers on an exaggerated portrayal of the amount or difficulty of the contamination to be removed or on a “gold-plated” treatment system. Where cleanup prices are negotiated, environmental agencies should review the corrective action plan to assure that the proposed technology and scope are not excessive or unnecessary.

States can develop their own internal prices for evaluating contractors, price offers, and for developing counteroffered prices to help prevent this abuse. State staff should also “comparison shop” to find the lowest price paid for a similar cleanup at a similar site. When it comes online this year, EPA’s PFP Site Information Exchange Web site will provide pricing information support.

Focusing negotiations mainly on the price, rather than on the technology, also helps prevent pricing abuse—especially if you know that similar sites are being cleaned up at a lower price. PFP is intended to give broad latitude to the consultant to engineer the cleanup in an efficient and cost-effective manner. If a consultant abuses this procedure, consideration should be given to soliciting alternatives from other consultants.

- **Bait and switch** The consultant negotiates a price based on an expensive technology and then uses a less expensive approach. This problem can be prevented by basing the negotiated price on the prices paid for remediation at similar sites, not on the chosen technology. However, if you must base a PFP price on a specific treatment technology, then this problem can be controlled by structuring the PFP agreement so as to require implementation of the design presented during the negotiations. The agreement must also allow for subsequent modification of that design, or implementation of a new technology, so that the contractor can continue to manage the cleanup effectively.

- **Coasting** The closest we’ve come to fraud in any PFP cleanup in Florida is when the contractor coasts to the end of an agreement as soon as he suspects that the final milestone will not be reached or that he will not reach it within the allocated budget. We have added language that requires that a timetable be set up for milestone completion. Failure by the contractor to achieve the milestones on schedule or to continue to make good faith efforts to do so can result in a determination of nonperformance and subsequent expulsion from the program as an absolute last resort.

**A Viable Antidote**

PFP is an effective tool for controlling many types of fraud and abuse, because the nature of PFP focuses attention on results rather than process. The results are subject to scientific verification, and payment amounts are agreed upon before the work is begun. Most of the fraud and abuses associated with reimbursement programs do not have an opportunity to work in PFP. Although PFP can spawn its own type of abuses, these abuses can be controlled by taking simple measures and the controls themselves focus on verifying results rather than on following process. Information on PFP is available at the OUST Web site: [http://www.epa.gov/swerust1/pfp/index.htm](http://www.epa.gov/swerust1/pfp/index.htm).

Robert S. Cohen, BS, MS, is a professional geologist specializing in LUST cost-containment issues, PFP training, and trust fund audits. For more information, contact Bob in Gainesville, Florida, at bobcohen@ivs.edu or (352) 337-2600.

Brian Dougherty, Ph.D., is an Environmental Administrator with the Florida DEP. He is currently overseeing Florida’s scale-up program for pay-for-performance cleanups. For more information, contact Brian at Brian.Dougherty@dep.state.fl.us or (850) 487-3299.