

**US Army  
Performance-Based Acquisition (PBA)  
Lessons Learned  
Fiscal Years (FY) 2001 through 2006**



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FINAL

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## 1.0 Introduction

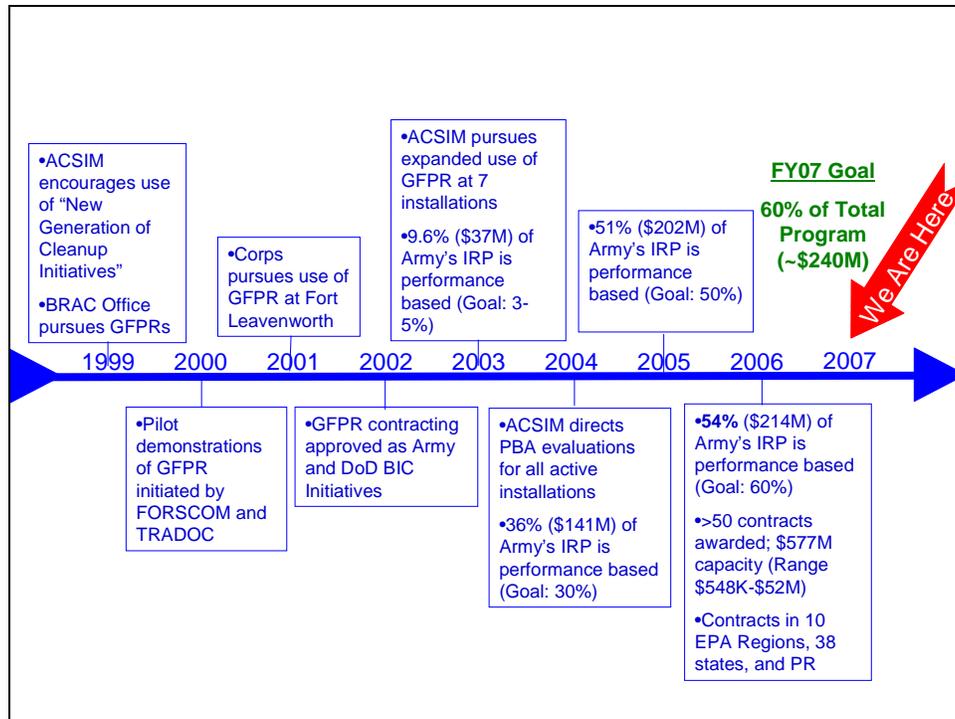
Since 1999, the Army has pursued use of performance-based acquisition (PBA)<sup>1</sup> at its active, excess, and Base Realignment and Closure (BRAC) installations. The Army's primary goal in implementing PBA was to lock in completion dates of cleanup and to cap costs. Prior to 2003, cost estimates for completion increased each year and fewer than 70% of the milestones were being met. The Army recognized that it needed to change its cleanup strategy.

As shown in Figure 1, the initiative has grown considerably since that time. As of the end of FY 2006, there are more than 50 performance-based contracts (PBCs) in place at installations in 38 states, Puerto Rico and all 10 US Environmental Protection Agency (USEPA) regions, with a total value of over \$570 million.

From the inception of the PBA initiative, the Army has pursued a path of continuous improvement. As issues have been raised, the Army has updated its PBA process to reflect new thinking, streamlined approaches, and lessons learned. However, because of the rapid pace of these changes, few of these observations and lessons learned have been documented.

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<sup>1</sup> Name of Army initiative has evolved from Guaranteed Fixed Price Remediation (GFPR), to Performance-Based Contracting (PBC), to Performance-Based Acquisition (PBA), which is consistent with the recently revised Federal Acquisition Regulation Subpart 37.6. Performance-based acquisition means an acquisition structured around the results to be achieved as opposed to the manner by which the work is to be performed. Performance-based contracts for services must include a performance work statement that describes the desired outcomes in measurable terms as well as the method of accessing contractor performance against standards.



**Figure 1: Timeline of the Army's Performance-Based Acquisition Initiative**

The purpose of this report is to present a summary of observations and lessons learned from implementing the PBA initiative, as identified through interviews with Army personnel and contractors actively involved with the Army PBA initiative.

## 2.0 Scope and Methodology

During January and February 2006, the US Army Environmental Center (USAEC) PBA Team<sup>2</sup> conducted interviews with USAEC Restoration Managers (RMs), installation personnel, U.S. Army Corps of Engineers (USACOE) personnel, Contracting Officers' Representatives (CORs) and procurement personnel currently working with performance-based contracts (PBCs) at active Army installations to identify observations from implementation of the PBA initiative. The objectives of the interviews were to: 1) identify ways to improve the process used in the PBA initiative for candidate selection through contract award, and 2) identify issues and/or challenges that are being observed in awarded PBCs that could be mitigated by changes in the pre-award process. The list of interview questions is provided in Attachment 1.

During the interview phase, the PBA Team spoke to 51 individuals representing 35 installations. The Team spoke to 15 USAEC Restoration Managers, 20 installation personnel, 5 USACOE personnel, and 10 CORs. In addition, the

<sup>2</sup> The PBA Team is comprised of USAEC personnel and support contractors assisting with the PBA initiative.

team interviewed the Contracting Officer (KO) from the Army Contracting Agency (ACA). The award dates for contracts discussed in this paper span FY 2001 through FY 2006 as follows:

- FY01 – 1 installation
- FY02 – 1 installation
- FY03 – 5 installations
- FY04 – 11 installations
- FY04 and 05 – 1 installation
- FY05 – 15 installations
- FY06 – 1 installation

A list of interview participants is provided as Attachment 2.

Although most respondents focused more on the issues than on the success stories, there was a strong indication that most contractors implementing PBCs are working at a rate on or ahead of the schedule that was proposed in their Project Management Plan (PMP). In cases where they are not, there are extenuating circumstances (e.g., regulator resources/schedules) which are out of the contractors' control. Regardless of the reason for delays, contractors are working diligently with regulators and the installations to identify ways to adjust internal schedules to ensure that the ultimate performance objectives can still be met.<sup>3</sup>

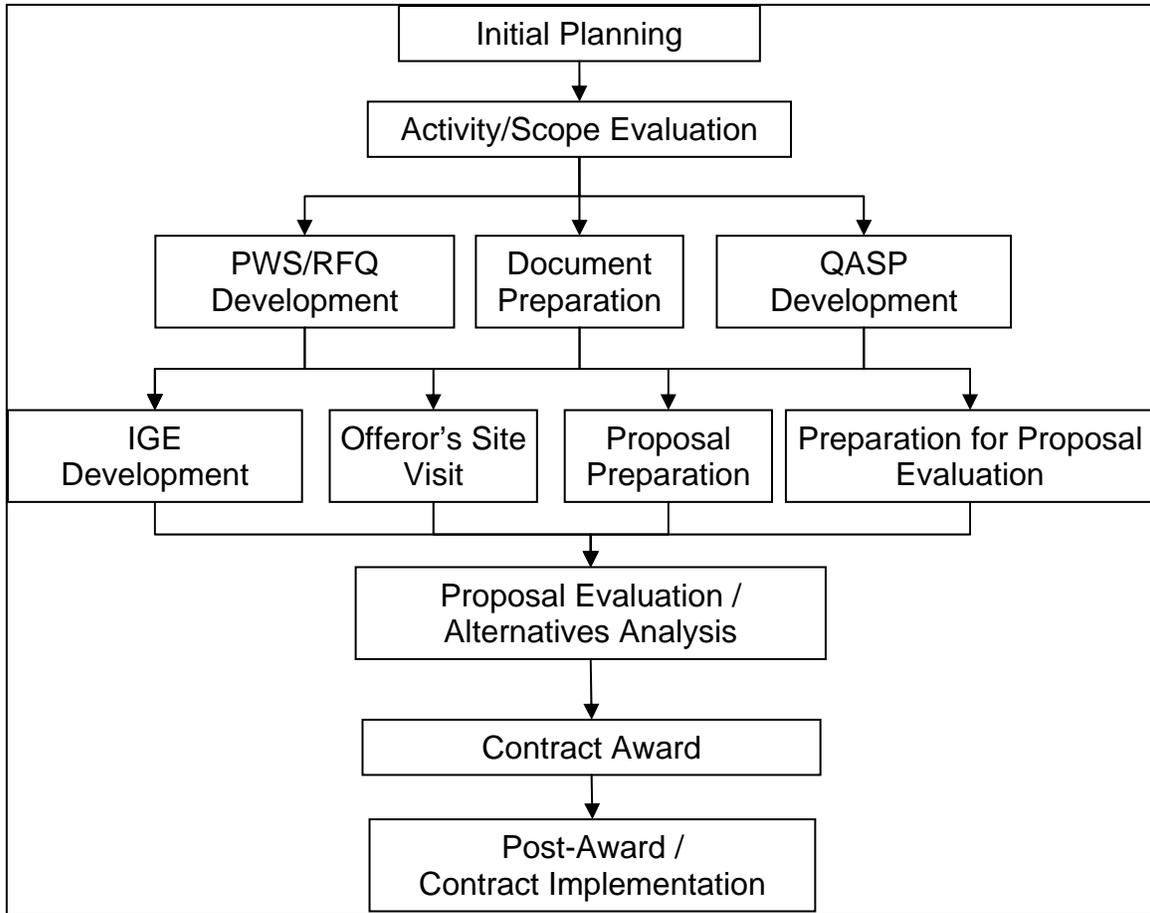
In addition, the general consensus from the Restoration Managers, installation personnel, and CORs is that the work being done by the contractors implementing PBCs is at a "meets or exceeds expectations" level. There are two instances where the contractor's performance has been poor or performance expectations have not been met. In one instance, a cure notice was issued.

The following sections provide summaries of interview results, divided into issues and organized according to the phase in the PBA process impacted by the issue (See Figure 2). Each section provides a description of the observation(s), discussion(s), lessons learned, and recommendation(s) based on input from the interviews.

The USAEC website <http://aec.army.mil/usaec/cleanup/pbc00.html> provides additional information on the PBA initiative. Questions related to this report or the Army's PBA initiative should be directed to US Army Environmental Command ([PBC.Team@aec.apgea.army.mil](mailto:PBC.Team@aec.apgea.army.mil)).

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<sup>3</sup>For more information on performance, see "Tracking Performance on the Army's Performance-Based Contracts."



**Figure 2: The Army's PBA Process**

### **3.0. Pre-Award Observations and Lessons Learned**

Observations in Section 3 are related to steps in the process, from initial planning for the PBA through award, including discussions on candidate evaluation and selection, performance objectives, and use of insurance.

#### **3.1 Candidate Evaluation and Selection: Managing Uncertainty**

##### Observation:

Failure to properly manage uncertainty has resulted in bids higher than necessary, and in one case, the need to cancel the procurement action.

Several installation personnel identified sites that were included within the scope of the PBC that in hindsight are not considered to be good candidates because of high levels of uncertainty with respect to key characteristics affecting closure. Although most interviewees stated that the criteria used to select sites for the PBC at their installation were valid, 13 percent (4 installations) felt that the criteria were not valid. Other installations felt that although the criteria were valid, some sites selected for the PBC did not meet those criteria. These sites could have been deferred until additional data were available to better characterize the site, or the performance objective could have been changed from achievement of Remedy in Place (RIP) or Response Complete (RC) to “regulatory acceptance of a Decision Document (DD) or Record of Decision (ROD). Interviewees for six installations felt that additional uncertainty reduction prior to bidding would have been beneficial.

##### Discussion:

Uncertainty is inherent in environmental restoration work. The key is to understand the potential impacts caused by the uncertainty and manage them. In the case of PBCs, the primary impact of uncertainty is unnecessarily high bids from which contractors could gain excessive profits. If a site is insufficiently characterized, bidders may assume worst case or near worst case conditions and bid accordingly. Competitive forces cannot remove unnecessary funds from bids if sufficient information is not provided to allow contractors to devise focused strategies. The potential for competition to reduce conservative assumptions is less when cleanup cost cap (CCC) environmental insurance is required, because the insurer is very conservative and refuses to insure bids that are based on too much optimism. One benefit of a PBC is to save money by encouraging innovative approaches that are more cost effective. The notion is not to ask bidders to roll the dice on uncertainty and save money for the Army by guessing wrong and losing their own resources. As a consequence, uncertainty affects both the sites selected for inclusion in PWS and the objectives set for the PBC.

There are a number of competing factors that must be considered when selecting sites for inclusion within the scope of a PBC at an installation. The issue then is how to best select sites for a PBC that will result in the lowest life-cycle cost to the Army. If the scope can be made fence-to-fence (i.e., include all open Installation Restoration Program (IRP) sites at the installation), it reduces challenges associated with interfaces among contractors and it puts everything under a single management structure. Moreover, the larger the number of sites, the broader the base for spreading risk and the less management burden that needs to be borne by any one site. On the other hand, putting sites under a PBC that have not been properly characterized raises the probability that bids will be higher than necessary to protect against unexpected requirements.

The most common factors noted when installation teams thought a site should not have been included in the scope were:

- 1) That a site was insufficiently characterized; and
- 2) That the PBC would not save money or expedite closure.

There is clear evidence that some sites were insufficiently characterized at the time they were put onto a PBC. On one PBC, two sites were undergoing interim actions at the time the procurement was let. Shortly after contract award, it was determined that neither of these two sites would require any further action. The contractor and the Army are currently negotiating the outcome of this issue. In two cases, sites were included when the information was insufficient, but actions were taken to prevent unnecessary expenditures by the Army. For example, at one installation a short duration study was conducted and results provided to bidders that reduced the bids by \$5 million. At another installation, preparation of the Independent Government Estimate (IGE) demonstrated how high the bids were likely to be on a site due to the lack of characterization data. That site was subsequently withdrawn from the final scope of the performance work statement (PWS).

The PBC for one of the Army ammunition plants includes all open Environmental Restoration, Army (ER,A) eligible sites. In retrospect, it appears that some of the effort included in the PWS did not require any significant effort to achieve the performance objective and including them in the scope may have caused some unnecessary expenditure for the Army. For example, contract line items (CLINs) were established in the PWS to address several groundwater plumes individually. This included development of separate deliverables for each plume. However, these plumes are now integrated into a single watershed approach, eliminating the need for individual plume capture report deliverables. In addition, the Army may have saved money if there had been some off-site characterization completed prior to the solicitation.

Uncertainty can have negative impacts when an improper objective is set for a PBC. At one installation, an issue was raised related to uncertainty and the level

of characterization available for a groundwater site. Although the Army believed sufficient data were available for the contractors to provide bids to achieve remedy-in-place (RIP), the contractors and insurance underwriters preparing the bids did not agree. In this case, data were available from multiple site inspection (SI) activities, although no formal remedial investigation (RI) had been conducted. Because the Army did not want to pay for an excessively high contingency, the Army changed the performance objective for this site from RIP to requiring a regulator-approved decision document (DD). A second PBC is planned for this installation when other site investigations have been completed, so completion of this site can be added to the scope of the second contract.

Other examples of challenges raised related to the performance objectives are associated with uncertainty as to when inputs from others will be available. At one installation, the performance objectives dates established were dependent on completion of work by the incumbent contractors. At the time of the performance work statement (PWS) development, the PBA Team assumed that the incumbent contractors would adhere to the established schedule. However, in one case, the incumbent contractor went bankrupt, requiring the Army to go through a new contracting effort to complete the work. For several other sites, the incumbent contractor fell very far behind schedule, preventing the PBA contractor from being able to achieve the objectives in the PWS. In this case, the PBA contractor chose a proactive approach and did the work themselves. This allowed them to influence the outcome of the predecessor documents for work they were responsible for, and to control the schedule for work being conducted. The contractor is still behind schedule for interim milestones, but believes they will be able to meet the overall RIP/Response Complete (RC) date for the sites on the PWS.

#### Lesson Learned:

The Army has now successfully implemented four different approaches to reduce uncertainty as a way of managing its impact on bids:

1. Remove the site from the PWS and allow it to be closed under another contracting strategy;
2. Defer putting the site in a PWS until sufficient characterization has been performed to reduce the uncertainty;
3. Modify the objectives in the PWS so the output is a decision document rather than site closure; or
4. Conduct a targeted data gathering exercise to provide additional information to bidders prior to the procurement.

The initial approach to PBA was to assume that the scope would include all open ER, A sites. In other words, a fence-to-fence procurement was desired. However, over time the PBA Team has developed a more rigorous review of the candidate sites to make sure that each site is considered for all factors, including

cleanup and characterization status, execution strategy, uncertainties, etc. This review process is shown in Attachment 3. The process is intended to identify uncertainties during evaluation and make a reasoned decision as to how they might impact implementation. Based on that assessment, one of the four uncertainty management options is adopted as the path forward. Once each site is reviewed, the PBA Team formally documents the results of the assessment, options, and recommendations in an After Action Report (AAR). The AAR is reviewed, commented on, and approved by the installation RPM and the USAEC RM. Now, the candidate evaluation approach also includes use of uncertainty analyses to help decision makers determine whether there is sufficient characterization to include a particular site, and development of multi-year implementation strategies that identify “break points” for each site (i.e., the optimum phase for the site to be included on a PBC).

Recommendations:

Continue use of the review approach presented in Attachment 3 when evaluating candidate sites at an installation. When warranted, conduct a Monte Carlo Uncertainty Analysis (MCUA) to identify the range of the impact that uncertainty could have, and use the results in conjunction with the assessment to better tailor the procurement strategy.

### **3.2 Use of Incentives and Disincentives**

Observation:

As of January 2006, only one installation has used incentives/disincentives as part of a PBC; however, installation representatives from four installations acknowledged that they should have made use of incentives or disincentives in the PBC at their installation.

Discussion:

A number of teams voiced concern that as contracts approach the end of the period of performance, there will be little money left to continue to motivate contractors to achieve the remaining objectives, particularly if a remedy-in-place is determined to require actions to correct identified deficiencies in the remedy. Moreover, there appears to be no way to ensure schedules are met other than the timing of payments to contractors. When those payments are small, the incentive for meeting schedules may not be enough.

One PBC includes a table of conditions for bonuses and/or reductions based on contractor performance. Incentives are offered for surpassing set schedules or exceeding prescribed quality levels. Deductions (disincentives) are imposed for late deliverables or low quality work. To date, the contractor has “broken even” between bonuses paid and deductions made. However, the installation believes

(and the contractor has confirmed) that the presence of incentives in the contract has motivated the contractor to effectively achieve performance objectives and to strive to obtain regulatory acceptance of the remedial approach proposed.

Another PBC contains language stating that if the contractor delays actions and the Army is penalized for missing Federal Facilities Agreement (FFA) deadlines, the fine is passed on to the contractor. Representatives of some installations would prefer to have had incentives/disincentives in their PBCs, especially disincentives. Currently the only “hammers” they have are to: 1) not pay the contractor, or 2) terminate the contract. Disincentives other than these two extremes would be more desirable.

When faced with a list of proposed interim milestones, the COR at one installation negotiated a ceiling so that only 90% of the milestone payment could be made before achieving regulator approval. In other words, only 90% will be paid for an interim milestone achieved on a particular site, e.g., Army approval of the performance objective; the remaining 10% is withheld until such time as the contractor completes the final remedy and the RIP/RC is approved by the regulator. Retentions could also provide incentive to ensure completion of all tasks (e.g., if the retention is held for the duration of the contract, rather than only through RIP/RC).

#### Lesson Learned:

To date the Army has little experience in using incentives and/or disincentives in the PBCs. The general belief is that incentives are inherent in a PBC (i.e., if a contractor performs well, they will be paid sooner, resulting in a higher profit margin). The installations that expressed a desire for incentives/disincentives were those installations where the PBA contractor has not performed to the Army’s expectations. Incentives/disincentives are seen as a means to keep pressure on the PBA contractors by providing a “hammer” to the COR that they can implement when problems arise.

#### Recommendations:

The use of retentions presents a viable solution to ensure on-time, quality performance. For example, 10% retention can be structured into the PBCs that states that in the event delayed performance negatively impacts the Army (i.e., a Defense Planning Guidance date is missed), then that 10% will be withheld. Should the contractor be able to get themselves back on schedule, the retention will be paid in full. In cases where meeting a schedule has a heightened importance to the Army, a bonus/incentive can be offered for achievement of the objective for performance that exceed expectations.

Beyond that, some consideration needs to be given to use of contractor performance reports as a way of identifying those contractors who do not find the

remaining funds to be sufficiently large to motivate them to complete final tasks. Ultimately, consistent, late performance should be used to recommend removal of contractors from the bidding pool.

1. Consider the use of retentions to ensure timely performance.
2. Consider the use of a bonus to reward accomplishment of a seemingly unachievable goal.
3. Utilize past performance reports to identify contractors who did not complete final tasks. Potentially remove those contractors from future bidding pools.

### 3.3 Use of Environmental Insurance

Observation:

There is considerable debate among Army personnel and contractors as to the value of environmental insurance (EI), and how the decision to require EI is made.

Discussion:

Respondents from thirty four (34) installations answered questions regarding EI coverage for their PBCs. Eighty percent (80%) of the interviewees stated that the PBCs at their installations are guaranteed by EI. At one installation, the contractor elected to self-insure the scope of effort required under the PWS.

The two primary reasons given for requiring EI were: 1) uncertainties associated with the extent of site contamination prompted the need to require insurance; and 2) the installation personnel believed that EI was required as an element of a PBC. One site

included insurance because it was “part of a pilot program proposed by the contractor.” Another installation thought that by requiring

<b>Contract Award Date</b>	<b>Number of Awards</b>	<b>Number of Awards Requiring Insurance</b>
FY01-02	2	2 (100%)
FY03	5	5 (100%)
FY04	15	10 (66%)
FY05	19	11 (58%)

insurance at the pre-award stage, they would “knock out unqualified bidders.” Representatives from ten installations felt it was necessary to require insurance because of various uncertainties associated with site characteristics, such as the extent of groundwater contamination plumes. Eleven installations obtained insurance because it was “prescribed from the outset” of the PBA effort. A few installations obtained coverage for a limited number of sites within the PWS.

A variety of other reasons were provided for the basis of the EI decision. One installation required EI for the “operation of the treatment system only.” A

representative from one installation stated that “at the time (contract award date August 2004), all of the PBCs being done by USAEC were insured...” and that, “there was little discussion of doing anything without insurance.” The site representative for another installation stated that, “it was determined that the job was too small to warrant insurance.” No insurance was obtained for another “smaller contract” with a five million IGE “with low complexity tasks, primarily LTM.” In another case, prospective bidders requested insurance when asked if they felt insurance should be required.

The current PWS template requires environmental insurance coverage, when applicable, equal to the Guarantee Limit of the contract. “Guarantee Limit” is equal to at least twice the sum of all of the prices for those sites identified in the task order. In some cases, the “Guarantee Limit” verbiage is changed to a value equal to the sum of the price for those sites requiring insurance, as opposed to twice the total award price. In other cases, USAEC is now reviewing the overall scope included in the PWS to determine whether a 100% insurance coverage is required. The belief is that requiring 100% coverage may be an excessive requirement. This series of changes reduces the amount of insurance required by the contractor, and therefore lowers the insurance premium somewhat. The use of insurance should not be a routine requirement, but rather based on the amount of perceived uncertainty at the sites, the phase of remediation completed to date, and the size of the business who will be awarded the work.

#### Lesson Learned:

The use of insurance should be based on a need rather than an assumed requirement. If the installation personnel believe there is some uncertainty associated with all or some of the sites included in the PWS, the use of environmental insurance may prove to be beneficial to the contractor. If the sites have been well characterized, or if there is little uncertainty remaining on the path forward for the remediation effort, environmental insurance may not be warranted.

Use of uncertainty analysis should be considered when trying to determine whether the level of uncertainty is too great even to cover with environmental insurance. [See section on uncertainty management.]

#### Recommendations:

The use of insurance should be based on:

1. The amount of uncertainty
2. The phase of completion to date
3. The size of the businesses bidding on the work

The results of MCUA, when available, should be used to help set insurance coverage limits such that insured amounts do not exceed reasonable overrun limits.

### **3.4 Obtaining Low Life-Cycle Cost for Army**

#### Observation:

Out of 31 respondents, 12 believed there were better ways to evaluate bids to ensure acquisition of the lowest life-cycle cost solution. Personnel from three installations in particular felt that some form of technical trade off (versus low cost/technically acceptable) would have been in the Army's best interest.

#### Discussion:

The ultimate goal of the IRP is to get sites to the point where there are no unacceptable risks to human health or the environment for the least life-cycle cost. The working premise for the PBA initiative is that with a properly written objective statement and competition, the PBA process will provide that result. Unfortunately, the practical reality is that some sites cannot be brought to a state of no unacceptable risk in the ten years (two five year contract periods) available for a PBC. As a consequence, the length of the contract period opens the possibility that bidders can select a remedy that has higher life-cycle cost because of post-contract cost obligations that more than exceed the savings over alternative remedies during the first 10 years. The issue then is whether there are ways to prevent contractors from putting in winning bids that ultimately cost the Army more than a higher bid would have cost.

Personnel from two installations felt that their contracts suffered from use of sole-source contracts in lieu of competition. Given the current position that competition is a key element of PBA, sole-source procurements should not be an issue in the future. The lessons learned survey merely underscores the value of competition in reducing costs to the Army. The concern for obtaining the best low life-cycle cost is more difficult to address.

In early procurements the objective was to obtain "Regulatory Closure," thus leaving it up to the bidder to select between alternatives that achieved remedy-in-place (RIP) and response complete (RC). As a consequence, in a low bid selection, there was no way to prevent bidders from selecting approaches that would have higher life-cycle cost in the form of remedial action (operations) and long-term management costs. There was also difficulty in defining what regulatory closure meant. Subsequently, some acquisitions were written specifying either RIP or RC for individual sites. However, there was concern that this was too prescriptive and dictated those sites that would receive more aggressive remedies rather than allow creative ideas to surface. Other procurements allowed for either RIP or RC but this suffered the earlier problem

with Regulatory Closure of inviting remedies that took longer to complete so costs were deferred to the Army after the 10 year contract period. Various attempts were made to require the successful bidder to provide documentation demonstrating that the proposed remedy would be the lowest life-cycle cost option. However, the successful bidder is not bound to the proposed remedy, so that proof was of no long-term value to the Army.

Ultimately, the Army has to accept a remedy before it is passed on to the regulators for approval. It is the Army acceptance process where contractors can be prevented from moving forward with an alternative that will be more costly for the Army than necessary. The Army can require the life-cycle cost analysis as a condition of accepting any remedy. Some caution is needed since this may put the Army in a position of forcing the contractor to spend more to reduce Army costs.

#### Lesson Learned:

The Army needs to determine how to incentivize the bidders to select the lowest life-cycle cost remedy even though the bid price only captures the first 10 years of the cost.

#### Recommendations:

The key is to be clear up front that the metric is lowest life-cycle cost and that the contractor will have to make a compelling case for their remedy if they expect to get Army approval. If the intent to scrutinize life-cycle costs is made clear in the bidding process and if the general means for performance of the life-cycle cost analysis is specified (e.g., use of present worth at specified discount rate), there should be little room to challenge an Army refusal of a remedy that would unduly burden the Army with out-year costs. To that end, procurement packages need to include a well-crafted section on what the Army will expect in the way of a life-cycle cost analysis for any remedy that does not achieve RC during the contract period.

### 3.5 Training

#### Observation:

Installation personnel and CORs had little or no comprehensive and formal PBA training on the use of PBA as a contract vehicle. Approximately 21 interviewees responded that neither they nor other PBA implementation team staff had received any formal training on PBA. In addition, one Contracting Officer (KO) reported that some CORs are confused on their lines of authority, and that contractors have expressed concern as to the extent to which CORs are attempting to direct their activities while implementing a remedy.

#### Discussion:

RMs, CORs, or Installation Managers were asked whether or not they had received any training on PBA before or after contract award.

Respondents from 11 installations said they had only received the AEC generic training on PBA. Respondents from 7 installations said they had received other informal training, were self-taught in PBA, or had attended U.S. Army Corps of Engineers training in PBA. Some site interviewees stated that because their performance-based contracts were considered pilots (i.e., prior to the PBA initiative really taking hold); no training was available at the time. Respondents from one site said they had no formal training, but received the equivalent of training in the form of “good assistance from the contractor” especially on insurance. The belief was that this contractor assistance was “equivalent to on-the-job training.”

Without formal training, certain installation personnel felt that they did not fully understand the benefits and pitfalls of a PBA approach. Rather, they felt they had simply bought into the benefits of PBA after attending USAEC briefings, and were just “going with the flow.” Formal training would have ensured more understanding and involvement in development of the PWS and IGE. In turn, installation personnel would have had a more comprehensive understanding of the pros and cons associated with PBA, and would have known how to better prepare to deal with them.

#### Lesson Learned:

It is clear that detailed PBA training needs to be developed or sought out and made available to installation personnel and proposed CORs before implementing a PBC. In addition, training or another mechanism needs to be developed to disseminate lessons learned information to installations implementing PBCs. Although the CORs for the PBCs have the required COR training, it would be prudent to develop training or guidance specific to issues associated with PBA implementation.

According to the interviews conducted, training should include the following topics:

- The level of risk a contractor is operating under when on a PBC versus other contract types;
- When modifications are/are not appropriate under a PBC;
- Contractor motivations and drivers when working under a PBC;
- Roles and responsibilities and lines of communication/authority for the installation personnel, contractors, regulators, CORs, and the KO;
- Pre- and post-award issues and resolutions;
- Interpreting the intent of the PWS scope;
- Evaluating Project Management Plans (PMPs) and milestone payment schedules;
- Updates provided (e.g., lessons learned from other installations);
- Institutional “attitude adjustment” in moving to PBA.

#### Recommendations:

1. Determine appropriate means for sharing lessons learned among installations.
2. Revise PBA briefings to reduce the amount of information on the history of the PBA initiative and increase the amount of information on lessons learned and implementing PBA. Share guidance with the installations before making the decision to implement PBA.
3. Work with KO to develop a guide for CORs implementing PBA.

### **4.0. Post-Award Observations and Lessons Learned**

Observations in Section 4 are related to activities taking place after contract award. These observations include regulator satisfaction, project management plans, quality assurance surveillance plans, contract line item number (CLIN) structure and performance objectives, contract modifications, communication, and roles and responsibilities.

#### **4.1 Regulator Satisfaction with Existing PBCs**

##### Observation:

In general, installation personnel believe that all regulators were initially leery of the PBA process. Some of the apprehension arose from bad experiences with other organizations’ attempts to utilize PBA. Specific concerns included:

- Fear of being overwhelmed by the PBC and the imbalance between resources and the anticipated workload;
- Fear of losing control of the work being done;
- Lack of confidence in the PBA contractor;

- Belief that the PBA framework drives contractors to cut corners; and
- Angst over introduction of a new process.

Of 18 installations where the regulators were concerned about the new PBA process, 5 remain unhappy, 11 have become more positive in their attitude towards PBA; and the remaining 2 installations have not had enough time to determine if the initial attitude has changed.

### Discussion:

Regulatory review is a key element of any PBA schedule and the results ultimately impact the contractor's ability to be paid. Poor reception to the PBA concept by regulators may result in barriers to performance and delays that could otherwise be avoided. As a consequence, it is important to determine if there are trends in regulator acceptance and if key characteristics are feeding resistance to implementation of PBA.

Due to a concern about being overwhelmed with documentation, regulators at one installation would only agree to accept 12 documents per year for review. This problem was resolved when the contractor developed a standard document template (including both format and contents) that has been agreed upon by the regulators. This effort has expedited reviews because the regulators know ahead of time what will be contained in the document and where the specifics requiring review are located. Now the regulator's perception of PBA is very positive. Similar concerns at another installation were resolved by the contractor developing a master work plan that covers all the common elements of the health and safety plan (HASP) and the quality assurance project plan (QAPP). As a consequence, site-specific work plans are much smaller and easier to review. Now the regulator is more receptive to the PBA process. At other installations, the work load has increased and as a result, there are still negative feelings. In one case the regulator requested that an RI/FS be withdrawn because they were overwhelmed with documents, but the Army has refused to do so. It is unclear how this type of dispute will be resolved.

One State agency was very upset with the PBA process. They had low confidence in the contractor. The agency was also upset with the additional workload. Significant partnering between the contractor and state regulators has improved things, but there is still a long way to go. The installation representative believes there could be a benefit to giving Army-funded training to the state regulators to help them cope with the demands on their time.

Only one installation indicated that the regulators had expressed concern with losing control of the work to be accomplished. The representative believed the state regulator was concerned that they would lose control over the groundwater remedy. Now that the regulators understand the PBA process better, their concern has been alleviated.

Federal regulators had a negative opinion of PBA at an installation and this opinion has not changed. In this case, USEPA believes profit motivation caused the contractor to make bad choices that would have been avoided in a time and materials contract. The regulators were not involved in the PBA decision-making process at one installation, and they still harbor ill feelings regarding being left out of this process. At another installation, the installation representative feels that there continues to be problems at the management level in the state. The state is still angry at USAEC over the whole PBA concept. The state regulators believe they were “sold a bill of goods” that PBA contractors would do whatever necessary to please the regulators, regardless of whether there was a driver or demonstrated risk. This opinion is not at the working levels for the state, but at the management level, which is affecting progress at the installation. At another installation, the installation representative believes the regulators have a very poor opinion of the PBA process. The early phases of the evaluation were handled poorly and there has not been time to recuperate.

#### Lesson Learned:

Early in the PBA initiative, attempts were made to include regulators in the bid evaluation process, and in at least one case that alone resulted in a positive change in attitude towards the PBA initiative. Policy does not allow for participation in the technical evaluation process any longer, but there may be other actions that could be taken to make the process as transparent to the regulators as possible. At a minimum, the Army should continue to offer regulators an opportunity to review the PWS and participate in candidate evaluation meetings. In addition, it may be good to develop a list of regulators willing to share ideas and experiences with regulators who are apprehensive. There are a number of individuals who have provided testimonials in the past.

#### Recommendations:

1. Involve the regulators early in the PBA process.
2. Invite the regulators to participate in the candidate evaluation meeting and bidder’s site tour.
3. Give the regulators an opportunity to review the PWS.
4. Actively engage the regulators in the PBA process.
5. Consider organizing a regulator forum that includes an outreach session. A component of this forum would be to address concerns to prepare regulators that have no experience with PBA and demonstrate good faith with those who have had negative experiences. This could be accomplished during or in conjunction with a Defense/State Memorandum of Agreement (DSMOA) conference.

## 4.2 Project Management Plans (PMPs) and Milestones

### Observation:

Although milestones are provided in the PWS, most contractors proposed modifications to the milestones in their proposal or in the draft PMP. In some cases these proposed changes did not meet milestone requirements or were not in the Army's best interest. As a result, the COR and the contractor had to negotiate the final milestone schedule for adoption in the PMP.

### Discussion:

Contract language allows the contractor to propose interim milestones that will result in partial payment for work performed as long as those interim milestones "...have a defined means for demonstrating completion in order to facilitate certification and approval." Cash flow considerations motivate the contractors to propose a large number of interim milestones, many of which do not meet the requirement. The resultant negotiations delay contract implementation and, in some instances, have led to acceptance of interim milestones that are not in the Army's best interest. The issue is how to foster development of interim milestones that are acceptable to both parties.

Seventy-five percent (75%) of the interviewees responded that the contractor proposed milestones in their draft PMP. Eighteen percent (18%) of the interviewees replied that the contractors proposed milestones in their proposal. The remaining seven percent (7%) responded that the milestones were specified in the solicitation.

Several installations experienced difficulties with the payment milestone schedules. On a multi-installation PBC, the milestones were finalized in the PMP. The Army was unhappy with what they deemed to be progress payments and poor metrics for assessing progress, but became concerned that the contract would not be implemented in a timely manner and accepted less than optimum milestones. In another PBC, the milestone payment schedule consists of four pages of interim milestones. The contractor has requested payments for items such as 40 project status reports, 30 milestone presentations, over 5 years of monthly reports, the draft PMP, 6 PMP revisions, and 2 PMP presentations. Similarly, in another PBC, the contractor proposed far too many milestones that were payments for documents generated/submitted, rather than documents approved. However, in this case, many of the proposed interim milestones were negotiated out of the PMP before the contract was awarded.

At the other end of the spectrum, the PMP another PBC does not allow for any interim payments. As a consequence, the contractor is struggling because they will not be paid until they have regulator approval of documents, and regulatory review is slower than they had anticipated. Meanwhile, the small business

contractor cannot move forward on other tasks, because they are waiting for a \$50,000 payment. In addition, they have an expensive subcontractor as the technical lead. Cash flow considerations are often more critical when the contractor is a small business; and it can be particularly difficult if a significant fraction of the work is subcontracted without similar milestone payment arrangements.

When faced with a list of proposed interim milestones in a PMP on another PBC, the COR successfully negotiated a ceiling so that only 90% of the milestone payment would be made before getting regulator approval.

#### Lesson Learned:

Interim milestones may be both necessary and appropriate, depending on the nature of the work required at an installation. In order to reduce delays in contract implementation, guidelines and sample interim milestones should be prepared and included in solicitation packages.

#### Recommendations:

The COR should discuss interim milestones with the contractor to ensure the milestones have a defined means for demonstrating completion. There is a need to provide guidance to CORs and contractors on what type of activity would be considered an appropriate interim milestone before delivery of the PMP. The key is early communication of expectations so delays are not encountered when the draft PMP is submitted on time, but is unacceptable because of improper interim milestones.

### **4.3 Quality Assurance Surveillance Plan (QASP)**

#### Observation:

During the PBA lessons learned interviews, it was noted that as of January 2006 22 of 33 installations did not have a QASP in place. Since a QASP is a requirement of the Federal Acquisition Regulation, this deficiency needs to be corrected.

#### Discussion:

Federal Acquisition Regulation, Subpart 37.6, sets forth the requirement for Quality Assurance Surveillance Plans for acquiring services using performance-based acquisition methods. Requirements for quality assurance and quality assurance surveillance plans are contained in Subpart 46.4, Government Contract Quality Assurance, where it states that "Government contract quality assurance shall be performed at such times (including performance of services) as may be necessary to determine that the supplies or services conform to

contract requirements. Quality assurance surveillance plans (QASPs) should be prepared in conjunction with the preparation of the statement of work.”

Prior to FY06, performance work statement language required the contractor to prepare a recommended strategy for Army Quality Assurance. The goal of the quality assurance strategy, provided by the contractor in the PMP supplied with their proposals, was to highlight key quality control activities or events that could be utilized by the COR to identify when independent Army inspections could be conducted to assess progress toward completion of milestones. The intent was that the COR would work these activities into a QASP. This teaming would allow a mutual understanding of how the work would be monitored and evaluated, as well as demonstrate how the contractor’s performance would be documented. As evidenced by the lessons learned interviews, many CORs failed to develop a QASP after contract award. At those installations where a QASP was not in place, the COR typically monitored the contractor’s work through submitted monthly reports, and compared the contractor’s efforts to the PMP. Where installations had a QASP in place, the COR reported success in monitoring the contractor’s progress as well as being instrumental in documenting project deficiencies.

Lesson Learned:

Development and implementation of a QASP is a requirement of the Federal Acquisition Regulation. In the past, this requirement was not always met. If the burden is placed on the contractor and a proposed QASP is identified as a required performance objective, it will ensure that the QASP is completed. In addition, having the contractor and COR work together to finalize the QASP will ensure interaction on key issues prior to finalizing the document.

Recommendations:

In January 2006 new language was incorporated into the PWS template to specifically call out the QASP requirement. This language directs the contractor to develop a draft QASP, using a supplied template, and submit this draft Plan with the draft PMP within 30 days of contract award. The final QASP will be developed in coordination with the COR and completed with the final PMP.

**4.4 Contract Line Item Number (CLIN) Structure and Performance Objectives**

Observation:

Installations have noted that the current CLIN structure for long-term management (LTM) activities and the performance objectives for exit strategies are not aligned to allow the contractors implementing PBCs to succeed.

### Discussion:

In several of the existing PBCs, LTM activities are divided among separate CLINs, one for each site for each year. In other words, if a contractor achieves RC on a site in the third year of a contract and the contract is for 10 years, then there will be seven severable CLINs associated with that site, each for a year of LTM. In the proposal, the contractor has provided a firm fixed price for each of those CLINs. If the LTM is not required, the CLIN will not be exercised. However, the Army added in a performance objective that requires the contractor to develop and implement a ramp down or exit strategy for all long-term activities, including LTM. If the contractor implements a ramp down strategy successfully, there will be no need to exercise the CLIN for LTM at that site, and essentially the contractor loses revenue that was planned in the original proposal. The current situation sets up disincentives for contractors to attempt to reduce the long-term costs for the Army.

### Lesson Learned:

The structure of the CLINs for LTM and the need to successfully achieve performance objectives has created a conflict in the PBA. As such, there is a need to carefully examine any changes to the PWS prior to implementation to attempt to identify issues with the changes before they are written into the contract.

### Recommendations:

Below are three alternatives for restructuring the CLINs.

1. Revise the CLINs to include LTM for all sites for one year as one CLIN (versus individual CLINs for each site). This would allow the contractor to be paid for the activities (and the “bonus” would be keeping the money for the LTM that is no longer required). This option would benefit the Army because in subsequent LTM contracts, the activities/requirements would be reduced.
2. Group LTM for each site into five-year increments and if the contractor can close out any requirements, they keep the extra money.
3. Some sentiment was also expressed for a mechanism that would share the savings from early exit or ramp down. Unfortunately, contractors can assign labor to LTM tasks and book revenues even if the work is not productive, so they may essentially keep all the savings rather than share them with the Army.

A final option may be to make all LTM activities optional and when a remedy appears to have met objectives, do not exercise future LTM CLINs and place

them on a contract designed to incentivize ramp down. Many times, the LTM work is small relative to other elements of the PWS, and a separate action is needed to have contractors focus on reducing LTM costs.

#### **4.5 Requirement for Contract Modifications**

##### Observation:

Although the goal is to eliminate the need to modify existing PBCs, there are some instances where technical and administrative issues have driven the need for contract modifications.

##### Discussion:

Most administrative modifications have been to revise the CLIN structure, to better align funding with activities required at the installation, or to exercise new CLINs. These administrative modifications have not resulted in changes to the overall price of the work.

There have been several instances where technical issues have arisen where change orders have been processed that add or subtract to the cost of the contract. In two instances additional scope has been added to the contract to address work that was not originally included in the PBC. At two installations, modifications have been required as a direct result of Army actions that have been outside the contractors' responsibility. In one case the existing landfill cover (trees) was harvested by the installation forester because of lack of communication between the restoration and the natural resource personnel. In another case, the schedule for conducting remediation had to be adjusted to meet the objectives of the installation commander. In one instance, the cost was reduced in a modification because the installation agreed to remove a chemical warfare material (CWM) site from the insurance requirement after contract award.

Installation personnel indicated that they believe additional modification requests are likely as the contractors get farther along in the contract implementation.

##### Lessons Learned:

Although the Army limits change orders allowed under a PBA, there have been some cases where there are justified modifications. Each request has been reviewed carefully by the COR, USAEC RM, and KO, and evaluated on whether a modification is justified.

##### Recommendation:

Continue to review each change order request to determine if there is a justified basis for the request. Maintain communication among the COR, KO, Installation, and USAEC RM to communicate issues associated with the modifications. If there are things that can be fixed in the pre-award phase that will help reduce the number of change order requests, ensure this information is shared among the KO, applicable technical staff, and the PBA Team.

#### **4.6 Communication and Roles and Responsibilities**

##### Observation:

Once a contract is awarded, some installations reported challenges in identifying appropriate lines of communication and establishing roles and responsibilities between the installation, contractor, regulator, USAEC RM, COR, and KO.

##### Discussion:

Early PBCs were largely awarded to contractors who had experience in private sector Guaranteed Fixed Price Remediation (GFPR) projects and in working for other federal agencies on privatized cleanups. As a result, there was some misunderstanding as to the level of oversight and participation that the Army would play when implementing PBA. In general, contractors on early PBCs expected and desired more latitude in negotiating with regulators than the Army was willing to allow. In one case the contractor was regularly communicating directly with the regulators and went so far as to submit documents to the regulators without the knowledge of the installation/COR. In other instances, there has been disagreement as to interpretation of the intent of the PWS. For example the contractor at one installation did not understand that they were responsible for finalizing draft documents prepared by the previous incumbent contractor. At another installation, the contractor attempted to work directly with the KO and USAEC RM when an issue arose (ultimately will result in a request for modification) without the installation/COR being aware that discussions with the KO were on-going.

In general, installation personnel reported that these were issues that were addressed early on in the contract, and have not been problems once the overall roles and responsibilities have been worked out. In addition, the PWS has been changed over time to clearly reflect that the Army will be involved in all negotiations with the regulators.

One KO reported that contractors are frustrated that installation personnel (non-CORs) are providing technical direction to the contractors, and that the CORs are micro-managing the contractors' remediation projects. In addition, there are some CORs that are under the impression that the technical approach presented in the winning proposal dictates the activities that will be undertaken during the remediation implementation, and manage the contractors accordingly. In most

cases, unless the contractor's proposal has been incorporated by reference into the contract, this is not the case.

#### Lesson Learned:

It is clear that even though the Army believes that the PWS clearly lays out the roles and responsibilities, there may still be differing interpretations of the PWS and activities required by the contractor. Roles and responsibilities may also change as a contractor gains the trust of the installation personnel and the regulators. Most installation staff indicated that they address these issues with the contractor first, and if necessary, raise the concerns to the KO for assistance in resolving them. In some instances, regulators have refused to communicate with the contractors because the Army is the responsible party. This has helped reduce the amount of times contractors are attempting to by-pass the installation staff.

#### Recommendation:

Continue to conduct contract kick-off meetings where roles, responsibilities, and overall mechanics of the contract can be discussed openly with the new contractor, installation staff, USAEC RM, COR, and KO. Ensure lines of communication are open, but clearly articulate how contractors are to raise issues and concerns, and how the overall team (including contractor, installation staff, USAEC RM, COR and KO) are to communicate when there are issues that require resolution. Make sure that early coordination by Army and contractors occurs with the USAEC legal staff on any documents that (1) present likely remedial alternatives (Feasibility Studies, Proposed Plans, Records of Decision, Decision Documents, etc.) or (2) create/document legal requirements (Federal Facility Agreements, permits, orders, etc.), and that coordination with the USAEC legal staff occurs before distribution to regulators. Consider incorporating penalties or issuing a cure notice when contractors go outside the appropriate communication channels (after a warning).

## **5.0 The Good News**

During most of the interviews conducted, the focus was on the issues and challenges faced by Army personnel in implementing or overseeing the PBCs and how we can make future improvements to the PBA initiative. However, participants also provided feedback regarding overall contractor performance, quality of the work, and ability to maintain schedules:

- Seventy-eight percent (78%) of those interviewed indicated that progress to date on the PBCs is "good" or better. The remaining responses were split equally between "poor performance" and "contractor is not far enough along in the contract to be able to respond."

- Seventy-five percent (75%) of those interviewed reported that the quality of the work being performed on the PBCs is “very good” to “excellent”, and “going beyond expectations.” The remaining 25% report that the work is adequate or fair and one installation indicated that work is still below expectations. Two respondents indicated that once cure notices were issued, the contractors’ work improved dramatically.
- Installations reported that 42% of the contractors are working at or ahead of schedule. However, 58% of the contractors are behind schedule on at least some portion of the PBC sites. Regardless, installations report that they believe the contractors will be able to make up the schedule delays and most will remain on schedule to meet their final objectives. In fact, when asked whether the contractors have a corrective action plan to get back on schedule, two installations reported a corrective action plan involving staff replacement, and three reported that they did not believe a corrective action plan existed. The remaining installations believe a corrective plan is not necessary because the contractor will still be on schedule to meet the performance objectives. This is consistent with results of USAEC’s recently conducted performance metrics study. In general, contractors have incorporated windows of opportunity into their schedules that can be used to collapse schedules when delays occur.

The interviewees also identified several overall benefits of having a PBC implemented at their installation, or an installation under their purview. These benefits include:

- A single contractor responsible for most activities at an installation simplifies the Army’s oversight responsibilities, and provides a consistent relationship with the Army personnel and regulators.
- A more stable source of funding is provided when an installation implements a PBC. This includes fewer administrative requirements to request funding for activities, as well as fewer, if any, contract modifications.
- The responsibility of accomplishing the work is transferred to the contractor.
- The cost of completing the work and the schedule are fixed. Although some work is currently behind schedule, contractors are working hard to get back on track.
- In some cases, contractors have successfully accelerated progress, particularly when adequate funding was available.

## **6.0 Conclusion**

Generally, the Army’s PBA initiative has been deemed a success because of the published cost avoidance and because of the overall improvement in contracting that has occurred as a result of the emphasis on using performance-based objectives. However, the initiative has undergone significant change since its inception. Most of the changes have been made “on the fly” in an attempt to

implement continuous process improvement. The intent of this document is to provide a summary of observations and lessons learned identified to date by those best suited to evaluate the program – the installation personnel, the CORs, and the USAEC Restoration Managers currently involved with one or more PBCs. The Army intends to continue focusing on areas that require improvement. As such, the Army encourages feedback and input on all aspects of the process -- from candidate evaluation through contract implementation.

## Attachment 1: List of questions

### 1. General Background

- What was the overall scope of the work being performed under this contract?
- Were a SOO or a PWS and a QASP used?
  - What factors influenced the decision as to which to use?
  - Was the QASP made available as part of the solicitation?
- What level of training was provided to the PBA implementation team on using a PBC as a contract vehicle?
- What regulatory agencies are involved with this project/installation?
  - How were the regulators involved in the decision-making process for PBC?
- Is environmental insurance included on this PBC?
  - How was the decision made to include insurance?
- What was the size standard or special status used for this contract (e.g., small business (500 employees), large business, full and open, minority owned, etc)?
  - Was this work competed? If yes, among how many competitors?
  - Was this work awarded as a stand alone contract, or as a task/delivery order on an existing base contract (e.g., MARC, ID/IQ, FPRI, etc.)?

### 2. Candidate Evaluation

- What were used as criteria when evaluating candidate sites for a PBC?
  - Were these criteria valid? Why/why not?
  - How was risk/uncertainty considered in the site selection decision?
- Are there specific sites/projects that should not have been selected? Why? Were there sites/projects that should have been included but were left out? If so, what factors drove the decision not to include those sites?
- Could the procurement have benefited from some further reduction of uncertainty prior to the bidding?

### 3. PBC Solicitation Process (once the decision is made to move forward, through contract award):

- How were the performance objectives developed?
- How were the performance measures developed?

- How were the performance standards developed?
- Does the contract include incentives/disincentives?
- What challenges were encountered in establishing evaluation criteria and contractor selection?
- How were payment milestones selected?
  - What input did the contractor provide?
- What difficulties were encountered in preparing the Independent Government Estimate?
- Are there specific changes to the PBC process (evaluation through contract award) that you would suggest?

#### 4. Contract Implementation

- Overall, how would you describe progress made to date on the project(s)?
- Is the contractor ahead of schedule? What factors/events have allowed work to proceed ahead of schedule?
- Is the contractor behind schedule? What factors/events have driven schedule delays?
- If behind schedule, what is the contractor's corrective action plan?
- How would you describe the quality of work being conducted under the PBC?
  - Quality of documentation?
  - Satisfaction of the regulators?
  - Satisfaction of the stakeholders?
  - Meeting expectations of the Army?
  - Is the Contractor meeting performance standards?
- Do you have a QASP?
  - If yes, how is it used in monitoring the work?
  - What difficulties have been experienced in utilizing the QASP?
- What problems have been encountered? How have they been resolved? (or what efforts have been made to get to resolution?)
  - PBC objectives in conflict with either Army policy or Corp regulations?
- What level of oversight have you used (e.g., project management, document review, field supervision)?

- As you have progressed, how has the level of oversight changed?
- What outstanding issues are you dealing with at this installation (as it relates to PBC – performance objectives, schedule, insurance coverage, regulatory issues, quality assurance, etc.)?
- Have there been any contract modifications?
  - If yes, what was the cause?
  - If no, has the contractor requested them?
  - Have there been any claims filed?
- In your opinion, what was the initial perception of the regulators/stakeholders of PBC?
  - Has the perception changed? If so, how?
  - What specific issues have been raised by the regulators, and how have they been resolved?
- What has been the most significant contract administration issues encountered?

## 5. Summary

- What is the single biggest benefit to having a PBC at the installation?
  - For USACE, the biggest benefit to utilizing PBC as the contract vehicle?
- What do you feel is the biggest drawback to using PBC?
- What unexpected experiences or outcomes have you encountered that can be attributed to PBC and/or the use of a PWS/SOO? (positive or negative)
  - Do you have a “war story” that can be used as part of constructing a case study for dissemination during lessons learned training and discussions?
- Are there other suggestions for improving the effectiveness of PBC?

## Attachment 2: PBA interview participants

Installation/Activity	Role
Aberdeen Proving Ground	USAEC Restoration Manager (RM)
Army Contracting Agency - USAEC	ACA Contract Officer
Camp Navajo	Future COR
Camp Navajo	Installation COR
Camp Navajo	National Guard Bureau Project Manager (PM)
Dugway Proving Ground	USAEC RM
Fort Chaffee/Camp Crowder, Fort Pickett	USAEC RM
Fort Detrick	Installation COR
Fort Detrick, Fort Meade	USAEC RM
Fort Dix	Installation Personnel
Fort Dix	USAEC RM
Fort Gillem, Fort Gordon, Fort Jackson	USACE Savannah District, COR
Fort Irwin, Hawaii installations	USAEC RM
Fort Jackson	Installation Environmental Coordinator
Fort Jackson	USAEC RM
Fort Leavenworth	Installation PM
Fort Leavenworth	Installation Technical Support
Fort Leonard Wood	Installation PM
Fort Leonard Wood	Installation Technical Support
Fort Leonard Wood	USACE PM, Kansas City District
Fort Rucker	Installation PM
Fort Rucker	Installation Personnel
Fort Sam Houston/Camp Bullis, Longhorn AAP, Los Alamitos/Camp Roberts	USAEC RM
Hawaii Installations	DPW/ENV/DIMCO Hawaii
Hawaii Installations	DPW/ENV/US Army Garrison Hawaii, COR
Hunter AAF	Installation PM
Hunter AAF	USACE Project Manager, Savannah District
Lake City AAP	Installation RPM and COR
Lake City AAP	USAEC RM
Louisiana AAP	Installation/Former COR
Milan AAP	Installation COR
Picatinny Arsenal	Installation Personnel
Ravenna AAP	Former Installation PM

<b>Installation/Activity</b>	<b>Role</b>
Ravenna AAP	USACE Project Manager, Louisville District
Ravenna AAP	USAEC RM
Red River Army Depot	USAEC RM (Contractor)
Redstone Arsenal	Installation Personnel
Redstone Arsenal	Installation Personnel
Redstone Arsenal	Installation RM
Redstone Arsenal	USAEC RM
Reserves Installations	Reserves Technical Support (Contractor)
Reserves Installations	USACE Omaha CX, COR
Reserves Installations	USAEC RM
Riverbank AAP	USACE Sacramento District, COR
Sierra AD	Installation COR
Sierra AD	USAEC RM
Sierra AD, Iowa AAP, Fort Leonard Wood, Joliet AAP	USAEC RM
Soldier Systems Center	Installation COR
USACOE Louisville District, Engineering Division, Compliance Section	Multiple Award Remediation Contract (MARC) POC
USACOE Louisville District, Engineering Division	Multiple Award Remediation Contract (MARC) POC

### **Attachment 3: Site Selection/Scope Development Process**

In identifying sites as candidates for a PBC, there are a number of factors that should be considered. The more significant of these factors have been organized in a binning logic as presented in Figure 1. The approach starts with the assumption that the preferred PBC is fence to fence, addressing all open sites. From that baseline, sites are removed and placed in unique bins representing specific characteristics that either precludes them from being placed in a PBC or that affect the timing or objectives of any PBC that includes them in its scope.

The first decision is to determine if the site is already funded through RIP/RC. If it is, but the schedule is not acceptable to the Army and the money can be re-programmed, the site is kept within the list of candidates for a PBC. If the money can not be productively re-programmed and/or the schedule is acceptable to the Army, the site is placed in Bin 1 as more than likely being better addressed by not changing the current contract mechanism.

The next group of sites removed from consideration is sites already in LTM. These sites are put in Bin 2. Ideally, these sites would be considered for an LTM/optimization PBC at a future date or could be rolled into the current scope. If a PBC is developed for the installation, Bin 2 can be reviewed to see if inclusion of these sites would draw on the same skill sets envisioned for the anchor sites on the contract and hence, could benefit from being put in the scope.

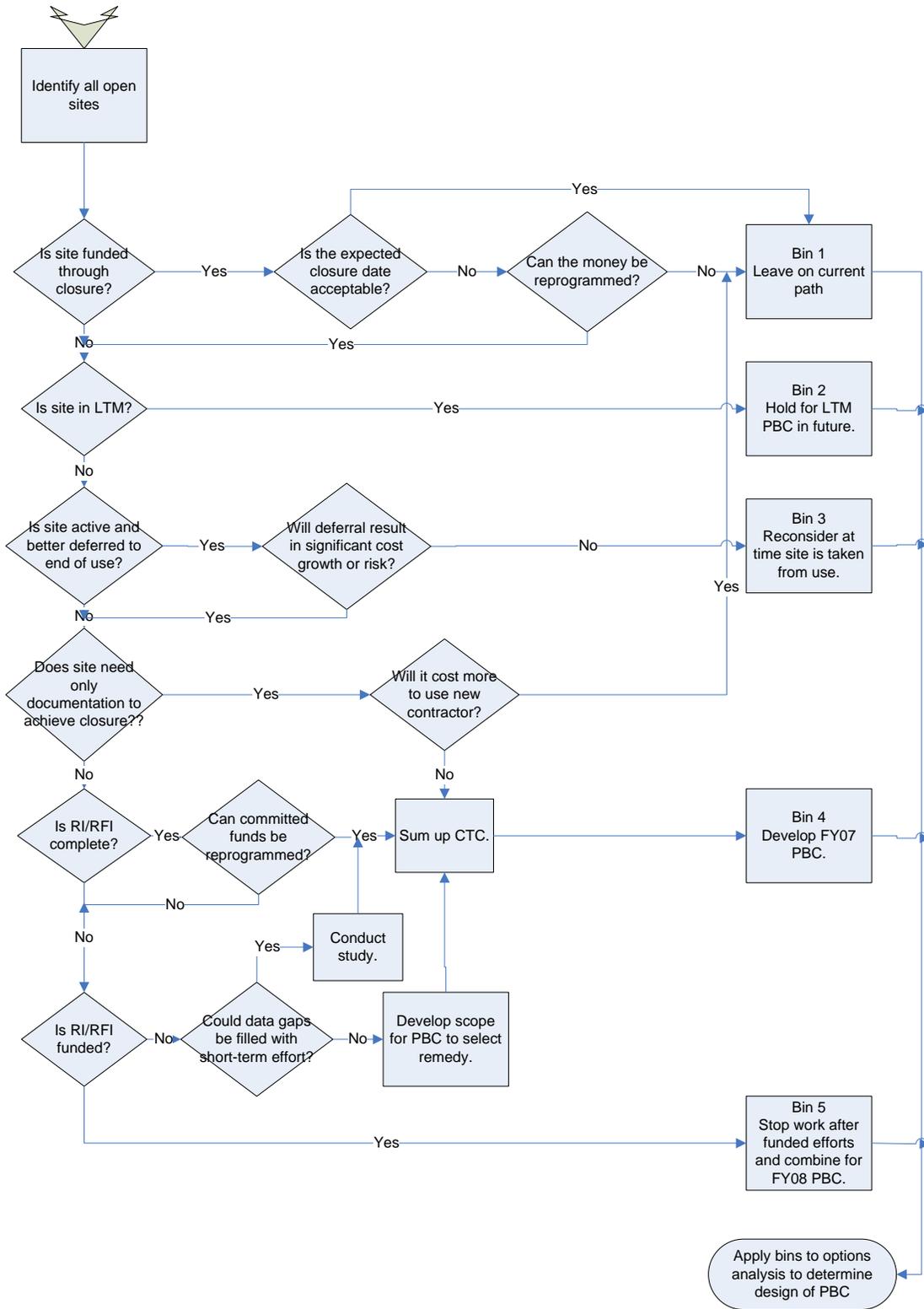
The third decision is to remove sites where ongoing installation operations still occur and would require a second round of characterization if put through site investigation and remediation prior to RIP/RC. For the most part, there is insufficient value in characterizing active ranges, treatment plants and disposal sites until they are ready for retirement. Exceptions would be sites where there is a legacy waste problem that may pose an imminent risk or could undergo significant migration to the point of greatly increasing the cost of correction when the site is closed. To the extent that none of the exceptions are determined to exist, these operational sites are put in Bin 3 and should be deferred until operations cease at these locations.

The next decision identifies those sites that need only complete documentation to achieve closure. This may be preparation of a closure report or it may be submittal of a NFA petition. If the current contractor has been performing this type of work efficiently and/or if there is probable cost growth in switching contractors at this point, these sites should be placed in Bin 1 for closure under the current contract.

The next query is to determine if site characterization (e.g., the RI) is complete. If characterization is complete, and committed funds can be productively re-

programmed, the site is a candidate for a PBC at the present and is placed in Bin 4. If the RI is not complete, the site is still placed in Bin 4, but with a note indicating the objective for that site would be to select an acceptable remedy. If funds cannot be productively re-programmed, the site is placed in Bin 5 and ongoing efforts should be completed and the site be put in a PBC at that time.

Figure 1. Site Selection/Scope Development Process



#### **Attachment 4: Acronyms**

AAP	Army Ammunition Plant
AAR	After Action Report
BRAC	Base Realignment and Closure
CLIN	Contract Line Item
COR	Contracting Officer's Representative
CWM	Chemical Warfare Materiel
EI	Environmental Insurance
ER, A	Environmental Restoration, Army
FFA	Federal Facilities Agreement
FS	Feasibility Study
FY	Fiscal Year
GFPR	Guaranteed Fixed Price Remediation
HASP	Health and Safety Plan
IGE	Independent Government Estimate
IRP	Installation Restoration Program
KO	Contracting Officer
LTM	Long-Term Management
MCUA	Monte Carlo Uncertainty Analysis
NFA	No Further Action
PBA	Performance-Based Acquisition
PBC	Performance-Based Contract/Contracting
PMP	Project Management Plan
PWS	Performance Work Statement
QAPP	Quality Assurance Project Plan
QASP	Quality Assurance Surveillance Plan
RC	Response Complete
RI	Remedial Investigation
RIP	Remedy-in-Place
RM	US Army Environmental Command Restoration Manager
ROD	Record of Decision
USAEC	US Army Environmental Command
USEPA	US Environmental Protection Agency