

**Restoration Advisory Board (RAB) Meeting
Recreation Center
U.S. Army Soldier Systems Center
October 14, 2004
Meeting Minutes**

I. Attendance

RAB Members Present

Joel McCassie, Co-Chair	Environmental, Safety, and Health Office (ESHO), US Army Soldier Systems Center (SSC)
Robert Campbell	Massachusetts Department of Environmental Protection (MADEP)
Marco Kaltofen, Co-Chair	Community Member
John McHugh	Restoration Officer, ESHO, SSC
A. Richard Miller	Community Member
Leo Pessin	Community Member
Dr. Harlee Strauss	Community Member
Christine Williams	US Environmental Protection Agency (EPA)
Dr. Kannan Vembu	Representative of Natick Board of Selectmen
James Fitzgerald	Community Member
Elizabeth McCoy	Employee Member, Natick Soldier Center

RAB Members Absent

Dr. Charles Czeisler	Community Member, Lakewood Association
Anthony Doheny	Community Member
Sidney Gantman	Community Member
Stephen Lubic	Representative of Natick Board of Selectmen
James Straub	Massachusetts Department of Conservation and Recreation (DCR) [formerly the Department of Environmental Management (DEM), Lakes & Ponds]

Others in Attendance

Michelle Bonanca	ESHO, SSC
James Connolly	ESHO, SSC
Gaynor Dawson	US Army Environmental Center (USAEC) - Calibre
Anne Marie Desmarais	Environmental Insight
Stacey Forman	Recorder, ICF Consulting
Michael Kipp	US Army Environmental Center (USAEC) - Versar
Dr. Margaret McVey	Environmental Consultant, ICF Consulting
Kevin Palaia	Environmental Consultant, ICF Consulting
Andrew Pajak	Camp, Dresser & McKee
Jeffrey Pickett	Environmental Consultant, MACTEC
Harold Prebensen	ESHO, SSC
Amy Rosenstein	Environmental Consultant, ICF Consulting
Joseph Sczurko	Environmental Consultant, MACTEC
Robert Snyder	US Army Environmental Center (USAEC)
Kathleen Thrun	Environmental Consultant, ICF Consulting
Jerry Whitaker	US Army, Public Affairs Office (PAO)

II. Handouts

1. Part I Draft Sediment Ecological Risk Management Technical Memorandum – ICF Consulting
2. Presentation of Draft After Action Report for Performance-Based Contracting Candidate Evaluation Meeting SSC – USAEC
3. Draft After Action Report Soldier System Center PBC Candidate Evaluation Meeting, October 14, 2004 – USAEC

III. Meeting Minutes

Mr. McCassie called the meeting to order at 7:20 pm. He then asked for a review of the minutes from the June 3, 2004 meeting.

Mr. McHugh stated that at the bottom of page 21, the comment by Mr. Wiggins should read, “Mr. Wiggins replied that they are involved in everything up to the site scoping and everything beyond that is procurement sensitive.”

Mr. McCassie asked for any other comments on the minutes. There were none. The minutes were accepted as amended.

General Comments

Mr. McCassie asked for General Comments.

Mr. McCassie congratulated Jim Connolly and his wife on the birth of their new son Brendan.

Mr. McHugh then spoke about the Environmental Assessment (EA) for the thermal test facility. He stated that Mr. Kaltofen’s written comments would be addressed in the final EA, which should be completed in 2 to 4 weeks. He also stated that Mr. Kaltofen’s comment regarding informing the RAB of EA’s will be taken into consideration for future EA’s as they are published through the Garrison and Installation Commander here.

Mr. Kaltofen asked if all his comments on the environmental assessment would be incorporated.

Mr. McHugh stated that all except the first one (which addresses general non-technical information about RABs and CABs) would be addressed. The non-technical comment would not be appropriate to put in the EA.

Mr. McCassie asked for any other general comments, and there were none. He then introduced Mr. Kevin Palaia and Ms. Amy Rosenstein of ICF Consulting, who would present the Part 1 Draft Sediment Ecological Risk Management Technical Memorandum.

Part I Draft Sediment Ecological Risk Management Technical Memorandum

Mr. Palaia stated that they would be presenting the results of the Sediment Risk Management Technical Memorandum, and would be focusing on the ecological risk assessment (ERA) activities performed as a follow-up to the original Tier III ERA. He indicated that they had also performed a human health risk assessment (HHRA) on fish consumption from Lake Cochituate, and those results would be discussed at an upcoming meeting. He introduced Dr. Margaret

McVey from ICF Consulting.

Mr. Palaia stated that copies of Sediment Risk Management Technical Memorandum should be available to the RAB before the next RAB meeting.

Mr. Palaia summarized the results of the previous ecological risk studies that have been performed at SSC over the past few years, including those at the T-25 Area outfall, the Main Stormwater Outfall (MSO), the Boiler Plant, the former proposed gym site (FPGS), and a number of other sites that extend along the shoreline of SSC. The previous results concluded that the contaminated sediments at SSC could adversely impact the benthic organisms, with risks being driven primarily by pesticides and PCBs. The subsequent Tier II ERAs involved a sediment quality triad (SQT) approach which looked at a number of other lines of evidence with higher confidence levels, including sediment toxicity testing, benthic macroinvertebrate surveys, and an evaluation of wildlife forging habitats of birds and mammals in the area. The Tier II ERAs identified various degrees of impairment of the benthic communities, varying degrees of chronic and acute toxicity, and confirmed that a complete food chain pathway exists at the facility, where higher-level organisms could potentially be exposed to contaminated sediments.

Mr. Palaia stated that the Tier III ERA built upon the results of the previous ERAs, and involved an extensive fish and benthic invertebrate sampling and analysis program across all of Lake Cochituate, to determine the direct impact the sediments may have had on the fish receptors. Food chain modeling was also performed to estimate risk to the higher-level receptors, such as birds and mammals. The Tier III ERA used conservative effects and exposure assumptions. The toxicity reference values (TRVs) used were generally the lowest literature values. The site use factors were set at 100%, which means that a receptor (e.g., bird, mammal, or fish) is living at the site for its entire lifetime - a conservative assumption. The diet fraction assumed that mammals and birds ate only fish from the site, and did not consider other non-aquatic food sources. The Tier III ERA used a weight of evidence approach to determine the risks to these various receptors.

Mr. Palaia then presented a graphic illustrating the receptors evaluated in the Tier III ERA, which included invertebrates (mussels), fish (largemouth bass, bluegill, and eel), birds (great blue heron, belted kingfisher, osprey), and mammals (raccoon and mink). These receptors were selected partially because these are the species representative of the local area, which were identified during previous wildlife surveys at the site.

Mr. Palaia then summarized the Tier III ERA results. The weight-of-evidence (WOE) approach concluded that for benthic (mussels) and bird receptors, there is a minimal potential incremental risk from the contaminated sediments at the site. For the fish receptors, the WOE approach identified low potential incremental risks for largemouth bass and eel, primarily due to PCBs, cadmium, nickel, and zinc. For the PCBs and cadmium, the incremental hazard quotients (HQ) were less than 5, while the HQ for zinc was approximately 20. Literature suggests that when using conservative assumptions, HQs less than 5 generally indicate insignificant risk, while risk quotients greater than 5 or 10 suggest there is a potentially significant risk. While there were some low level risks for fish, the extensive fish sampling program found no visible impacts on the fish (e.g., the fish did not contain any gross lesions or tumors), and found an abundant and diverse fish population.

Mr. Palaia stated that for the mammals (raccoon and mink), low incremental risks were calculated. For mink the risk was primarily from PCBs, with HQs generally less than 5. For raccoon, the risks were associated with PCBs and cadmium, with HQs generally less than 10. As a result of the previous wildlife surveys, the site could potentially provide a suitable habitat for

the mink and raccoon. However, the site usage by these receptors is likely to be low, given the nature of the activities at the facility.

Ms. Rosenstein then discussed the additional ERA activities performed. While there were some low risks calculated during the Tier III ERA, they weren't negligible, so the Army felt that it was necessary to look at some of the conservative assumptions that were used and some of the uncertainties associated with the use of those conservative assumptions. The additional ERA activities evaluated some of the key uncertainties identified in the Tier III ERA to see what impact they might have on the risk estimates.

Dr. Vembu asked that given the conservative assumptions you have made, is there an explanation for the difference in the estimated mink and raccoon risk?

Mr. Palaia answered that the risk estimates were generally in the "less than 10" range for both mink and raccoon. However, mink are generally more sensitive to PCBs.

Mr. Kaltofen stated that raccoons have been a tremendous problem in his neighborhood, and he would bet that the officer's club at SSC would provide a fabulous habitat for raccoons (due to presence of garbage) and that site usage at this installation would be high, not low as previously suggested.

Mr. Palaia acknowledged Mr. Kaltofen's comment, and stated that one of the key uncertainties being evaluated is the raccoon diet fraction. The Tier III ERA assumed that raccoon ate exclusively fish and aquatic food sources, and no terrestrial sources (such as garbage). It is well known that raccoons are opportunistic feeders, and they are probably going to eat from a dumpster because it is a lot easier than catching fish in the lake.

Mr. Kaltofen stated that he would be willing to say that the site usage for this particular installation would be high, but at the same time it would cut into their fish consumption.

Ms. Rosenstein presented the three key uncertainties that were the focus of the additional ERA activities, including toxicity reference values (TRVs), site-use factors, and diet fractions. The additional ERA activities focused on identifying more realistic values for each of these key uncertainties, which were more applicable to the receptor species.

Ms. Rosenstein then presented some graphs illustrating the conservative nature of the TRVs that were selected for use in the Tier III ERA. She indicated that for the new TRVs an updated comprehensive literature search was conducted, including review of relevant ERAs for the Northeast region (e.g., Housatonic and Hudson River ERAs) with similar receptors and chemicals. Strict selection criteria were used to select each new TRV, which included evaluating the appropriateness of the exposure time, the type of chemical exposure, and the effect.

Ms. Rosenstein then presented the new TRVs selected for mammals, with a comparison to the TRVs used in the Tier III ERA. The TRVs presented were the Lowest Observed Adverse Effect Level (LOAEL). In many cases the median or the average of several appropriate studies was used. If all were on the same species then the average was used. If there were varying species across studies, then the median was used. Priority was given to studies on the exact receptors that were being evaluated.

Dr. Strauss asked if for the PCBs, did we look at similar levels of chlorination.

Ms. Rosenstein replied that most of the studies were based on Aroclor 1254 and Aroclor 1260,

which is consistent with the predominant Aroclors present in the sediments and fish tissues collected from the site.

Dr. McVey stated that for PCBs for mink, the TRV we used was an average value from two laboratory mink studies. This average value was similar to three additional studies in which contaminated fish from contaminated water bodies were fed to the mink instead. So basically we looked at 5 studies that gave similar results, but we decided to focus on the two studies where we knew which Aroclors had been administered.

Ms. Rosenstein then presented the TRVs selected for fish receptors. She pointed out that for nickel we could only identify one appropriate study, so that study had to be used. For PCBs in largemouth bass a single field study was used – the field study was performed in Massachusetts and evaluated the reproductive health of largemouth bass in PCB-contaminated regions of the Housatonic River.

Ms. Rosenstein then presented the site-use factor uncertainty. In the Tier III ERA, a site-use factor of 100% was used, which assumed that a receptor foraged at the SSC site 100% of the time. She explained that the realistic home range of a receptor is likely to be larger than just the site area; for example, the mink has a habitat foraging range of 1-6 km along a shoreline. To arrive at more realistic site-use factors, we reviewed the site-use factors developed by the biologists who performed the wildlife surveys at the site. We also reviewed relevant literature to make sure that the wildlife biologist values were consistent with literature. As a result, we ended up using an intermediate site-use factor and a most-likely (realistic) site-use factor.

With regard to the uncertainty associated with diet fraction, Ms. Rosenstein stated that the Tier III ERA assumed that 100% of a minks and raccoons diet was fish and shellfish. This is likely an overestimate for raccoon, which may get a lot of its food from either terrestrial sources or from humans. A literature review of published ERAs for other sites was performed and we came up with a variety of more realistic diet fraction values. The raccoon diet fraction was developed from 4 published studies. For mink, we used the Housatonic River ERA average and maximum diet fractions for fish, which were based on a very large literature study.

Ms. Rosenstein then presented a table of the developed diet fractions. The Housatonic River ERA showed an average fish diet fraction of 23% for the mink and an upper bound fish diet fraction of 65%. The diet fractions do not add up to 100% because some portion of a receptors diet is from terrestrial or other non-aquatic sources.

Ms. Rosenstein then presented the risk results for fish using only the newly developed TRVs. The risk estimates were calculated for the central tendency exposure (CTE) and the reasonable maximum exposure (RME). The CTE used the average site concentrations, while the RME used the 95% upper confidence limit (UCL) of the mean concentration. For largemouth bass, all HQs for all chemicals at the site were less than 1, and the incremental risks (which is site HQ minus the reference HQ) are also less than 1 for all chemicals. For the American eel, HQs for cadmium and PCBs were less than 1 at the site and the reference location. Nickel HQs ranged from 1.5 to 4.3 at the T-25 Area, the reference nickel HQ was below 1, and the incremental risk was 1.4. Zinc HQs ranged from 2.2-6.2 at the T-25 Area, the reference HQ was below 1, and the incremental risk for zinc was 1.7.

Ms. Rosenstein then presented the risk results for mammals using only the newly developed TRVs. For mink, cadmium HQs were less than 1 for the site, reference, and incremental. PCB HQs for mink ranged from 3.2 to 4.5 at the site and 2.3 at reference, resulting in an incremental risk less than 1. For raccoon, HQs for cadmium and PCBs were less than 1 at the site and

reference.

Ms. Rosenstein presented the risk results from incorporating the new TRVs and the new site-use factors. For mink, the incorporation of the intermediate and most likely site-use factors lowered the absolute HQs to 2 - 4.5. Incremental risks were less than 1 before and are still less than 1. For raccoon, all the absolute and incremental risks were already below 1, so incorporation of the less conservative site-use factors will make them go even lower than 1.

Ms. Rosenstein presented the risk results from incorporating the new TRVs and the new diet fractions. For mink, lowering the aquatic diet fraction from 100% to the average of 23%, lowered all the HQs to less than or equal to 1. Using the high-end diet fractions of 64% the HQs were in the 2-3 range for the mink. Incremental risks were still less than one. Raccoons were already below 1, so incorporating the new diet fractions lowered the risk estimate even further.

Ms. Rosenstein presented the conclusions from the additional ERA activities. Based on the results of the additional activities, the sediments may pose low-level risks for nickel and zinc to individual American eel. However, the proportion of the total eel population in the lake that could be affected is likely to be small; therefore the population-level risks to eel are likely to be negligible. The sediments may also pose low-level risks to individual mink that feed at the site; however, given the larger exposure unit that is likely for the mink foraging range, the magnitude of exposure to site-related contamination (in sediments and/or food items) for individual mink is likely to be small. In addition, considering the overall population of mink in the larger area of Lake Cochituate, the number of mink that might actually be exposed to the site locations is likely to be small. Therefore, population-level risks to mink are probably negligible. The application of more realistic toxicity and exposure assumptions results in limited incremental risk to populations of ecological receptors. Therefore, the sediments associated with SSC do not pose population-level ecological risks that would warrant further evaluation or action.

Mr. Miller stated that he thinks that we are weighing this with two measures: one is how large and significant the dose would be, and the other one seems to be how many or the total general population that happen to live here. If you take a large enough area, and the animal's food intake is a small enough part of a whole, then as long as we look at a small enough part of the whole area, we can ignore the risk?

Ms. Rosenstein replied that in the Tier III ERA we did look at that small area, and 100% usage of the small, localized area shows that there were some low incremental risks. But the reality of whether a mink or raccoon would actually just stay in the one small area around the site is unlikely. The literature suggests that these receptors forage over a larger area than just the site. For raccoons, the population centers might stay closer to areas where they can get garbage, but for mink it wouldn't really stay in that one location for a long time, it would move around to various locations, and would only be exposed to the site a very small percentage. It is more realistic to account for the larger foraging area.

Mr. Palaia stated that in an ERA, you generally are concerned with the potential risk to the entire population of a receptor (e.g., mink), versus the individual mink that may be foraging in that area.

Mr. Miller stated that he has noticed one mink in the area where he lives and sees them in very limited locations. He stated that he does not believe that we are in that rural of an area, so it is possible that mink roam less than we might think.

Mr. Kaltofen asked if he could clarify what the question Mr. Miller is asking. He stated that the conclusion on page 20 of the presentation says the sediments may pose low-level risk to

individual mink that feed at the site, however, the number of mink that might be exposed is likely to be small, therefore, population risks are negligible. Meaning because the number of mink that might be exposed is small, the population risk is negligible. He stated that if he reading the conclusion properly, this conclusion is not based on the size of the forage area, but based on the number of individuals in this location. He stated that if that is the case, he has to agree with Mr. Miller that it's not sufficient to average in a larger amount of animals and say well the ones that live around here are going to be problematic, but there are enough to carry on the bloodline. He stated that the answer we gave is not much different, saying that their forage area extends to include a much larger region. That would be true whether the population was made up of one individual or one thousand. So either what you just told Mr. Miller is the correct answer or the conclusion in the presentation is correct, but one doesn't fit with the other.

Ms. Rosenstein stated that she thinks they are part of the same question. The foraging range is part of the whole question, because if there are say 50 individuals around the lake (or whatever the sustainable population of mink might be), it may only be two individuals that are actually affected by the site. The whole population is likely spread out and not necessarily exposed at this particular site.

Mr. Kaltofen asked if we are saying that the population risk is negligible simply because the affected individuals are outnumbered by the unaffected ones, or are we saying that the population risk is negligible because the forage area is large?

Ms. Rosenstein stated that it is both. The population would not likely be affected because the entire population exists over a larger area than this one small area, and for individual mink, because each individual mink's foraging area is larger than this small area, their exposure at the site is likely to be small.

Mr. Palaia stated that it's a combination, and that an individual represents a very small portion of the entire population.

Mr. Kaltofen asked if there is some EPA guidance that weighs individual versus population-level risk, and is it ok to not worry about individuals because the populations are large.

Ms. Williams stated that she does not have an answer to that question.

Dr. McVey stated that EPA guidance and Superfund policy state that if you are discussing an endangered or threatened species, the Superfund policy is concerned about individuals. If it is not an endangered or threatened species (such as at SSC), the Superfund policy is to be concerned about the maintenance and sustainability of the population and not the individuals.

Mr. Miller stated that what he does know as an interested observer tells him that we have a larger population of raccoons, with rare sightings of mink and fisher. The lake perimeter in many places is about 10 feet deep, and most places the lake is somewhere between 20 - 50 feet deep. It is generally not good terrain around Lake Cochituate for these mammals, except where something adjacent happens to offer a good natural area. He stated that the mink and fisher that he has seen appear to show up in the same places, not just randomly around that narrow perimeter of the lake.

Mr. Palaia stated that the wildlife surveys performed at and around the site during the Tier II ERA's included 8 separate surveying periods conducted over the entire year. He stated that as far as he was aware not a single mink was observed, and recognized that mink are very difficult to actually observe. The surveys were performed at the SSC and in other locations around South Pond of Lake Cochituate.

Mr. Miller stated that it sounds like he is the expert on mink in this area and that's unfortunate. He stated that he is not worried about wiping out state's mink population, but he is worried about the Lake Cochituate population. He stated that he would like to have clarification of what EPA's interpretation would be. He said that it sounds wrong to him to just ignore the individual mink that might get harmed at the site, but to say that averaging out the risk over the entire population is fine.

Ms. Rosenstein stated that mink was a receptor that was selected based on that fact that it could be a species in this area, and that it is known to be sensitive to the chemicals associated with the sediment at the site.

Dr. Strauss stated that it seems that the risk to the individuals is mighty low, and that she would really hate to see the Army spend a lot of money protecting mink, where it is quite unsure whether there are that many mink actually impacted.

Mr. Kaltofen asked what effect was observed in the study that was selected for the TRV for mink.

Dr. McVey responded that it was a reproductive effect. She also indicated that the Housatonic River study was one of the mink studies reviewed where fish were fed contaminated water.

Dr. Strauss stated that she happens to know that study very well, and she agreed that they were looking at the reproductive endpoints.

Mr. Kaltofen asked if someone could explain what the HQ is mathematically.

Ms. Rosenstein replied that it is the site concentration divided by the toxicity reference value.

Mr. Kaltofen clarified that a HQ of 2 means you are twice the concentration at which you begin to observe actual effects.

Mr. McCassie then introduced Mr. Mike Kipp, Mr. Rob Snyder, and Mr. Gaynor Dawson from the USAEC Performance Based Contracting evaluation team.

Update of Performance Based Contracting Initiative Army Environmental Center

Mr. Snyder stated that they wanted to provide the RAB with an update of the performance based contracting (PBC) evaluation performed at the SSC facility and an overview of the Draft After Action Report.

Mr. Snyder presented a slide illustrating the steps in the PBC implementation process, and indicated that the site-scoping visit was held in July 2004 and the Draft After Action Report has been developed. The remaining steps deal with contract-related actions. He then provided a brief explanation of the remaining steps in the process.

Mr. Snyder presented a slide on issues and questions raised by the RAB on PBCs at the June 2004 RAB meeting. The first issue was how the PBC addresses new or previously unknown contamination identified during an investigation process. He stated that new sites would be handled just as they would be handled under traditional contracting mechanisms - they would not be part of the PBC. Work that may be required on newly identified sites would need to be scoped out separately from the PBC. As far as new contaminants that are found on a site that is under a PBC, newly identified or discovered contaminants would be part of the PBC. The second issue is

how stakeholders are involved in the CERCLA process after a PBC is awarded. He stated that the National Contingency Plan (NCP) and CERCLA are still guiding the process, so public meetings and public forums are still part of the process. For the RAB, the rules remain the same. The RAB continues to provide advice and feedback to the installation and the regulatory community, as well as to the community at large. The RAB also continues to review documents.

Mr. Dawson stated that a question that arose at the June 2004 RAB meeting was “Is it typical to go to a PBC when you do not have a Record of Decision (ROD)?” He stated that of the 91 sites that have been put under PBC (not installations, but individual sites), 81 of these sites had no decision documents available at the time of the PBC award. Mr. Dawson said that contractors that bid PBCs actually prefer to bid prior to decision documents, because they believe there is more flexibility available to get to the designated endpoint with innovative and creative thought. Regardless of the contract mechanism used, the endpoint is the same – you want a closed site that is protective of human health and the environment. The Army’s history with its cleanup program is that sometimes the path we take spends a lot of money that did us absolutely no good in terms of the product that we got. The significance of the PBC mechanism is that it makes the contractors just as responsible as the decision makers in trying to pick a cost-effective way to get to the end point. The true selection is do we have enough of the uncertainties pinned down that we believe we can cost effectively procure services that will get us to the end point.

Mr. Dawson then described the PBC candidate evaluation meeting held at SSC at the end of July 2004. The meeting was attended by USAEC representatives, installation personnel, regulators, and a town of Natick representative. The evaluation was performed by a team of individuals working for the USAEC. The evaluation meeting is a part of the decision process. The goal is to gather information about the facility to understand as much about the site to determine whether it is a good candidate that it would benefit from using the PBC mechanism. They try to understand what residual uncertainties exist and how significant are the uncertainties relative to the decisions that have yet to be made. Time is spent walking around the sites, going through the history of the sites, trying to determine what is under existing contract, what are the anticipated costs that get to closure, what is the current schedule to get to closure, and what are the opportunities for accelerating the schedule. The primary objective of this program is to accelerate closure, and the Army is under mandate to do this. The program benefits if we can move cleanup forward, and bring closure as close to the current date as possible.

Mr. Dawson stated that from the site-scoping visit, an After Action Report is developed. The After Action Report is a synopsis of what we learned and ultimately leads to a recommendation as to whether the site is a candidate for PBC, and if the site is a candidate, what the scope of that contract might be. It addresses how many of the sites might be included in a PBC and what the endpoint would be. For example, would you take the sites to closure or would you take them to some intermediate point. From that point, the next steps would be writing a performance work statement (PWS), determining what the likely costs are, and announcing it to bidders.

Mr. Dawson stated that USAEC’s view is that SSC falls into three categories, differentiated by media: ground water plumes, contaminated soil, and sediment. Mr. Dawson stated that no decisions have been made yet, and that as part of the decision making process, USAEC is here to get input from the RAB. He stated that USAEC’s current thinking is that the soil sites at SSC are likely to be cleaned in a timeframe that would beat any new contract initiative; therefore USAEC does not see a reason to convert the soils to a different contract mechanism. He stated that the sediment sites are also not a good candidate for PBC, because there is a significant level of uncertainty right now as to whether the sediments will require action and, if so, what the appropriate action would be.

Mr. Dawson stated that USAEC believes that the ground water plumes are a good candidate. He presented a slide that listed four ground water site, including the T-25 Area (NRDEC-05), Building 2/45 (NRDEC-11), Building 22/36 (NRDEC-16), and the Former Proposed Gymnasium Site (FPGS) (NRDEC-06). He stated that NRDEC-06 (FPGS) has two more rounds of sampling left to hopefully show that it has been cleaned up. The USAEC believes that the other three sites (NRDEC-05, -11, and -16) are good candidates, and they are looking at possibly rolling those three sites into a single comprehensive contract that would take them all to Remedy in Place (RIP). He stated that these three sites are very similar to the types of sites that many of the PBCs have been awarded to by the Army throughout the country. Chlorinated solvents are one of the areas where the Army is seeing a lot of creative remedies being applied in PBCs to accelerate clean up. Mr. Dawson reiterated that the Army is still in the decision process, and no decisions have been made yet.

Mr. Kaltofen asked that if a site does not appear on the list, is it not considered for PBC.

Mr. Snyder clarified that the list includes all the open sites in the Army's environmental database, so this should be an all inclusive list of all sites at SSC.

Mr. Kaltofen asked if Building 22 is meant to be Building 22 and 36.

Mr. McHugh replied that it was.

Mr. Kaltofen then asked if the Parking Lot Outfall is also the Main Stormwater Outfall.

Mr. McHugh replied that the Parking Lot Outfall is one of three outfalls that fall under the sediment category - the other two are the T-25 Area outfall and the Main Stormwater Outfall.

Mr. Kaltofen asked if off-site portions of the ground water plumes are considered under the PBC.

Mr. Dawson replied that the off-site portions of each plume are part of each site, and would be considered under the PBC. He stated that contiguous plumes would all be dealt with in the same action.

Mr. Dawson stated that no final decision regarding PBC at SSC has been made yet, and that USAEC is here to gather some more information and comments from the RAB. After this, the USAEC will make a draft recommendation to go up the chain of command and hopefully be finalized in not so distant future. He stated that additional information on the overall PBC initiative is available at <http://aec.army.mil/usaec/cleanup/pbc00.html>.

Dr. Strauss asked if Mr. Dawson could speak more about what remedy in place means.

Mr. Dawson stated that typically there are two options: response complete or remedy in place. Response complete would mean you have restored the environment to a level that is completely protective of human health and the environmental, without having to take further actions. You've either removed all contaminants, or you put it in a mode that is acceptable for whatever purposes that site is for. Remedy in place means that you have put your remedy in place and it is operating successfully and properly, but you aren't at the end point yet. He stated that typically with ground water contamination the Army asks for remedy in place, which either means clean up all the way, or cleanup and get through two successful five-year reviews. A five-year review process is designed to assess whether you are meeting your objectives and have corrected all deficiencies found during prior reviews. So typically for ground water, the PBC end point will be remedy in place, however the Army is willing to evaluate proposal that consider cleaning up the whole

thing, provided the cost is reasonable.

Dr. Strauss asked if the three ground water plumes would be combined into one PBC, despite each of the three being at different stages - one has a remedy in place of pump and treat already.

Mr. Dawson replied that was correct. He stated that as he recalled that at the T-25 Area (NRDEC-05) there are some modifications to the ROD that are necessary, because capture perhaps not a complete - the PBC would be expected to address that. One of the reasons the Army is eager to tie all three areas together is because we think there may be some economies. The Army may want to do some pump and treat actions associated with all three, and tying those together may be more economic than trying to do three totally separate actions.

Dr. Strauss stated that that makes sense, but she is not sure that is different from what the Army is already doing. She asked that where there is not a ROD already in place and there is not an agreement that pump and treat is the right thing to do, whose decision is it at that point, the PBC contractor or the Army.

Mr. Dawson stated that the decision making process does not change. The PBC contractor will come to the stakeholders and say "here is what we think makes sense", and they would need to get approval for their approach before they can move forward with it, just as any contractor would today. I know that there is a lot of concern that if the contractor bid to get to closure, they must have told you what process they are going to take therefore haven't you already accepted the remedy. In reality successful PBC contractors do not bid a single individual remedy, they actually run a Monte Carlo simulation where they look at numerous different variations of remediation approaches, and they typically pick a price based on the 85th percentile cost. They consider the uncertainty in the acceptability of the different approaches. Mr. Dawson stated that it is kind of like an insurance game, where the contractor bets that they will win sometimes and lose sometimes, and are essentially pooling their risk. So in the proposals, contractors tell the Army that they think Plan A is a good approach for this site, but here is Plan B and C, if Plan A is not acceptable. Their price is not dedicated to an individual technical approach, but a combination of all approaches.

Dr. Strauss asked if the proposals are bid as a fixed cost.

Mr. Dawson replied that they are fixed cost with an insurance policy. Typically for ground water, it is a cost cap insurance policy. The contractor actually makes their bid in league with their insurer. For example, the insurer is saying that if the bid is for a 10 million dollar job, the insurer is putting another 10 million dollars on the table, which they would use to cover overage if they underestimated what the real cost of that job was. A common question is what happens if it is more than a 20 million dollar mistake that is made? In this case, the Army has to step back in because the Army never ultimately loses their responsibility or liability of the situation. So if the overage breaks both their budget and the insurance policy, the Army ultimately steps up and pays what comes over that. Mr. Dawson stated that within the Army's PBC program, they have yet to have a claim against any of the 23 PBCs out now. On the public sector side there have been some claims made against these cost cap insurances on Brownfields developments. But to date, the Army has not had any claims.

Mr. Kaltofen asked if Mr. Dawson meant a successful claim or any claim.

Mr. Dawson replied any claim.

Mr. Pessin asked how long the Army has been using this type of contractual instrument.

Mr. Dawson replied since 2002.

Mr. Pessin asked if there had been any claims in the two years of this contracting mechanism.

Mr. Dawson stated that the Army has actually had some sites that have been closed for several years now, but for two years after closure, we have not had any successful claims. He stated that some of these sites in the BRAC program met their objectives, they obtained regulatory closure, they were deemed to be protective, they were transferred to the public, and they are currently in use.

Mr. Miller asked to what degree were the RAB members were included in the July 27 through 29, 2004 meetings.

Mr. Dawson replied that there were no RAB members at those meetings, because the discussions at those meetings were procurement sensitive. To protect both contractors in the community that may want to bid on these jobs and the RAB members from being in a position where it would compromise the integrity of procurement, the Army has a policy that those discussions and evaluation meetings be held within the Army community. It is a RAB meeting like tonight's where the Army asks for input from the RAB members in such a way that we are not having that conflict of interest situation arise.

Mr. Miller asked what representatives from the town of Natick were involved.

Mr. McCassie replied that Mr. Bois was sent from the town.

Mr. Kipp stated that the Army has yet to make a decision on whether to proceed with the PBC mechanism at SSC. He stated that the Army had an obligation to present the Draft After Action Report to the RAB, and that there are copies of the report available after the meeting. Mr. Kipp stated that based on the evaluation the ground water sites probably have the best potential to group together. He stated that the Army intends to make a decision within the next two to four weeks as to whether we are going to proceed with this contracting mechanism or not. If the decision is to go the PBC route, the Army will follow through the sequence of steps, primarily contracting actions including: the development of a performance work statement, independent government cost estimate, solicitation, evaluation, and potential contract award. That process could take between 6 to 9 months. As far as public involvement goes, the solicitation would be released to the public and the site bidders meeting would be open to the public. The remaining actions are conducted by the Army PBC team, the installation personnel, and the Army contracting office. The Army typically invites the state and federal regulators to participate on the technical review board to evaluate the technical aspects of the proposals.

Ms. McCoy asked if there is a 5-year review requirement in these types on contracts, since it sounded like that was the time when you would determine whether the contractor has met their obligations.

Mr. Dawson replied that the 5-year review is a major regulatory requirement, and that the contractor would not get paid until they meet the milestones. The milestone is tied to something that has a measure – the Army does not pay the contractor to give them a draft report, but we pay for them to give us a final report approved by the regulators.

Ms. McCoy asked that if there were performance issues in the 5-year period, would the Army terminate a contractor for nonconformance.

Mr. Dawson replied that is correct.

Mr. Pessin asked what medium would be used to publish the Request for Proposal.

Mr. Kipp stated that they typically use the CBD, or Commerce Business Daily.

Mr. Dawson clarified that it also depends on which contracting organization is used or which vehicle the contracting officer chooses to use, but it is generally published in either hard copy or over the internet.

Mr. Campbell asked if the Army was restricted to contractors you can use, to a list of contractors that GSA provides you with, or can anyone bid.

Mr. Dawson replied that it depends on the contracting vehicle that is used - some of the PBCs are full and open competition, others are for firms with GSA Environmental Services schedules. There is also currently an IDIQ contract under evaluation which will have a pool of 5 large businesses and 5 small business contractors pre-approved to bid on PBC jobs. Part of the decision process here is defining which contracting vehicle would be appropriate for a specific job.

Mr. Campbell asked if it is possible to go outside that list if the installation has someone local that they have confidence in.

Mr. Dawson replied that going the full and open route is an option.

Mr. Fitzgerald asked how the decision is made, is it a committee, is it USAEC, or is it SSC.

Mr. Dawson replied that it is the panel that Mr. Kipp spoke of earlier. The panel is made up of members of the USAEC evaluation team who wrote the scope of work, the environmental coordinator from the installation, and the regulators if they want to participate.

Mr. Snyder clarified that the selecting official for the Army is the contracting officer, and this happens at the procurement activities contracting office.

Mr. Fitzgerald asked where that is happening, here in Natick, Maryland, or somewhere else.

Mr. Dawson replied that it depends.

Mr. Fitzgerald stated that there are some contractors that have been at the site for a long time and have gone through the investigation and remediation process. Based on his understanding of how the process has gone, it might be difficult to meet PBC milestones. The phased process of CERCLA always seems to go a long time, and he thinks that is good because we have had a lot of great input and a lot of different ideas to look at. He is curious that now that insurance companies are getting involved, it seems that there is going to be a lot more pressure to get to conclusions quickly - which may be good, but it may not be good. He stated that he understands what is behind this new mechanism, but making it work well seems really extensive.

Mr. Kipp stated that he thinks that some of the current contracts are relatively mature and the Army needs to move forward toward an endpoint. There have been many studies to date, and most of them have been through the RI and FS at this point.

Dr. Vembu asked who is taking the risk, is it the site or is it the contractors.

Mr. Dawson replied that you can never take the risk or liability away from the Army. The way the Army views it is that the contractor and the insurer are electing to share some of the risk with the Army. There are three parties sharing the risk.

Dr. Vembu stated that somehow this intuitively raises the question of meeting deadlines – will the three parties be tied in knots and will things take longer.

Mr. Dawson replied that the insurers don't get involved unless there is a claim against it. The decision makers don't change. The Army's experience is that we are getting closure faster and it's costing the Army less money, and that is why the Army has been told to move forward with this initiative.

Dr. Strauss stated that she is a small business owner/contractor, and that she could never take something like this on, because you are restricting the contractor's availability, and a small business is 500 people.

Mr. Dawson replied that up until last year the largest contract that the Army ever let went to a small business.

Mr. Miller stated that based on his own experience he is concerned that typically the low bidder gets the contract. The low bidder usually bids under the realistic price and then relies on overruns in order to be able to make a profit, like we have seen on the Big Dig in Boston. He stated that he thinks that it would not work differently here. He stated that he is also very concerned why the RAB wasn't involved in the meetings back in July, and why the RAB continues to be marginalized. He stated that he thinks that there will be more reasons for contractors under pressure to make it look like everything is ok, until they come to a crash point and have to renegotiate.

Mr. Dawson replied that there are no change orders under these contracts, and because there is insurance, there is no option to come back and say this scope is different than you told me and I am going to make myself wealthy with a change order. That is what the insurance policy covers. He stated that this is not a straightforward fixed-priced contract. It is a guaranteed fixed-price contract, which takes away the change order capability.

Mr. Campbell asked who provides this insurance.

Mr. Dawson replied that AIG and Zurich are two of the main insurers, but there are some other smaller ones.

Mr. Campbell stated that we are talking about very large indemnifications here, and that it is not uncommon to see costs of remediation of \$20-30 million or more.

Mr. Dawson stated that the largest PBC that the Army has let to date is \$55 million, and that is insured.

Mr. Pessin asked if the cost estimates are set in concrete.

Mr. Dawson replied that was correct.

Mr. Pessin asked who would bid on something like that when they can't tell what their costs will be 2 to 3 years down the road.

Mr. Dawson replied that there was very healthy competition on the \$55 million PBC, and there were a lot of very challenging aspects of that job.

Mr. Pessin stated that he couldn't tell you the cost of fuel six months from now and neither can someone who is going to truck away excavated soil.

Mr. Fitzgerald stated that the contractors are bidding on the potential risks. He said that they are not going to come in and answer 50 action items by the RAB, so this is a no win situation for the RAB members. He asked whether the Natick site has been spending excessively, and is that why the Army is considering a PBC.

Mr. Dawson replied that is not what anyone is saying here, and that a PBC is not a punishment.

Mr. Fitzgerald stated that he would approach it by asking do we have a problem with the contract mechanisms that are currently in place today. He indicated that initially he was surprised to see multiple contractors looking at various sites at SSC, but then he realized that it was nice because the Army and the RAB were getting inputs from different people with different experiences, which was valuable. He stated that he thinks that we have done a lot of positive things at the site to date, and that needs to go into the decision. He stated that if the financials were way out of whack, then maybe PBC is the right way to go. However, to his knowledge that was not the case and that a lot of good things have been done at the site with the current contract vehicles. He then asked what the current contract vehicle the Army uses at the site.

Mr. McHugh replied that it varies, some are fixed price, some are time and materials, and some are cost plus fixed fee.

Mr. Dawson reiterated that there is no implication here that USAEC is criticizing this facility or the financial management of the schedules or anything else. Right or wrong, a decision was made way up the Army food chain that they wanted to try what private business has been so successful at. PBC was piloted back a few years ago within the Army and it was successful, both in cost savings and accelerating closure. We all want to get safe protective conditions as quickly as possible, we do not want an environment that poses a risk or threat any longer than it has to. To the extent that the PBC initiative has been able to accelerate closure I think we all win. The decision the Army is trying to make, can we in fact get to safe conditions faster for a reasonable cost, and if we can, then that is what we should be doing.

Mr. McHugh stated that regarding the community and the RAB, community acceptance is one of the 9 CERCLA criteria for approval of a remedial action. He stated that in order to get regulator approval of an action you would first need community acceptance.

Mr. Snyder stated that the contract mechanism does not to impact the requirement to comply with CERCLA or the NCP. We are required to conduct actions that are protective of human health and the environment that comply with our legal requirements, but we also have a fiduciary responsibility of being cost effective.

Dr. Strauss commented that the Army should take community acceptance seriously. She stated that she thinks it is a good idea to have some of the operating units under the single contract mechanism to achieve cost savings, and as a taxpayer and a community member she appreciates that. However, the issue of the community acceptance, the effort of continuing to work with the community, and how that is going to work, is a legitimate concern. The other concern is associated with low bids and technical qualifications.

Mr. Dawson stated that the Army has thrown bidders out because they believed that their community involvement program was not sufficiently robust. We have found them deficient because they did not address those issues. So we do take it seriously.

Dr. Strauss asked about the technical qualifications as well.

Mr. Snyder stated that when the technical evaluation board gets together, they review the technical proposals only, to assure that they have technical merit. The technical evaluation board is not responsible for reviewing the costs proposals. The award is based upon technical acceptance and low cost.

Mr. Pessin asked what portion of the PBCs have gone to GSA schedule service providers.

Mr. Dawson replied that a large number (approximately 75%) of these have been done through GSA service providers over the past few years.

Mr. Pessin asked whether the Army was aware of the fact that there are two provisions in the 2005 budget, which might preclude GSA from continuing the schedules.

Mr. Dawson replied that they were aware of this issue, and in fact, they had already elected to not use GSA schedules on a bulk of the PBC procurements going forward.

Mr. Kaltofen asked what the length of the contract would be and using the T-25 Area as an example, wouldn't some of the remedies extend out beyond the contract window.

Mr. Dawson replied that the award would likely be for two 5-year contracts, wherein the contractor would be obligated to continue operating the remedy, meet all the deficiencies in the current system, and at end of the 10th year successfully pass the second 5-year review with the regulatory agencies and fix anything found in that review. The Army may also want to incentives the contractor to shorten the cleanup time and actually get the entire site cleaned prior to the 10-year period. The Army has found a number of the bidders propose very aggressive approaches, rather than say pump and treat. At SSC you have a different situation because you are in a ground water protection zone. The more aggressive methods typically involve putting chemicals into the ground (e.g., in-situ chemical oxidation, reductive dechlorination), which may or may not be desirable in this case. Mr. Dawson stated that if he were bidding this job, he would probably leave the pump and treat in as my a safety net, and try to go at the source area or heart of the plume more aggressively, mitigate whatever residuals are left behind from the chemicals added to do that, and try to clean that up in that 5-10 year window. That may or may not be possible; it may or may not be acceptable to the community and the regulatory community because of either real or perceived risk with those chemicals.

Mr. Kaltofen asked at what point in the PBC process, if at all, will members of the public be able to get information on the evaluation preparation and proposal evaluation steps.

Mr. Snyder stated that those steps are within the procurement process, a process that we must protect the integrity of. The solicitation would be available when there is published of the Request for Proposals. The RAB will coordinate with the installation and will be made aware as soon as the contract has been awarded.

Mr. Kaltofen asked if the identity of the bidders is available to the public or the RAB.

Mr. Snyder replied that they are not, and in fact, the identity of the bidders is not even identified to him.

Mr. Kaltofen stated that with regards to the insurance process, he could see businesses suing their insurance companies. He asked if this is something that SSC is going to have to deal with if there is a need to make a change order. If a contractor wants to get paid by the insurance companies, are they going to have to go and sue the insurer, or is there some other mechanism.

Mr. Dawson replied that you need to differentiate between the kinds of insurance policies. They never intended to insure against pollution events. Insuring against pollution events causes the cost to be greater than that which was bid. You would have to name the Army as an additional insured party, which would be difficult.

Dr. Vembu asked if there was a sample contract that is available.

Mr. Dawson replied that on the USAEC website there is an example performance work statement, and it also identifies other installations that were involved in this and have done this before.

Mr. Kaltofen asked if Fort Devens or Watertown have used PBC.

Mr. Dawson replied that PBC has been used at Fort Devens.

Public Comments

Mr. Kaltofen commented that there was a proposal for a new thermal test facility at the SSC that required an environmental assessment. He stated that he had submitted written comments on the draft environmental assessment and he just wanted to ask that the written Army responses be distributed in a normal fashion to the RAB. He said that he is expecting two written responses: one regarding the technical issues in the environmental assessment document, and the other regarding the process-related issues.

Mr. Miller asked what the timing was on the responses and the final environmental assessment.

Mr. McHugh replied that there is a 30-day comment period on the environmental assessment. Mr. Kaltofen has submitted comments to that, and the Army is going to address those comments in the final environmental assessment itself. One of Mr. Kaltofen's comments was not technical - it addressed notification to the RAB prior to an environmental assessment being published. Mr. Kaltofen requested that when SSC publishes an environmental assessment, that they notify the RAB when they are published.

Mr. Kaltofen commented that if people have these kinds of issues that don't seem like they would be on the agenda naturally, either contact Mr. McCassie or myself as early as possible and we will get the item on the agenda.

Mr. Miller stated that he would like to go on the record as saying that his comment (which was distributed to all members of the RAB via email) upon my becoming aware of published environmental assessment, that he has the same two issues that Mr. Kaltofen mentioned. He also stated that he thinks the citizen members were marginalized in this process, and that they are still waiting for a discussion. He stated that he thinks that this is exactly counter to the kind of trust that we have worked for years on, and he hoped that an open discussion on this issue would happen soon. He then asked when the next RAB meeting was scheduled for.

Mr. McHugh stated that the next proposed meeting date is November 18, the 3rd Thursday of November.

There were no other public comments.

The meeting was adjourned at 9:32 PM.

Action Items

1. Mr. Kaltofen asked if all his comments on the environmental assessment would be incorporated.

Mr. McHugh stated that all except the first one (which addresses general non-technical information about RABs and CABs) would be addressed. The non-technical comment would not be appropriate to put in the EA.

2. Mr. Kipp stated that the Army has yet to make a decision on whether to proceed with the PBC mechanism at SSC. He stated that the Army had an obligation to present the Draft After Action Report to the RAB, and that there are copies of the report available after the meeting. Mr. Kipp stated that based on the evaluation the ground water sites probably have the best potential to group together. He stated that the Army intends to make a decision within the next two to four weeks as to whether we are going to proceed with this contracting mechanism or not. If the decision is to go the PBC route, the Army will follow through the sequence of steps, primarily contracting actions including: the development of a performance work statement, independent government cost estimate, solicitation, evaluation, and potential contract award. That process could take between 6 to 9 months. As far as public involvement goes, the solicitation would be released to the public and the site bidders meeting would be open to the public. The remainder of the actions are conducted by the Army PBC team, the installation personnel, and the Army contracting office. The Army typically invites the state and federal regulators to participate on the technical review board to evaluate the technical aspects of the proposals.
3. Mr. Kaltofen commented that there was a proposal for a new thermal test facility at SSC that required an environmental assessment. He stated that he had submitted written comments on the draft environmental assessment and he just wanted to ask that the written Army responses be distributed in a normal fashion to the RAB. He said that he is expecting two written responses: one regarding the technical issues in the environmental assessment document, and the other regarding the process-related issues.
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