

Final Meeting Minutes
Restoration Advisory Board (RAB) Meeting
Sunflower Army Ammunition Plant (SFAAP)
Wednesday, May 14, 2003

1. The thirty-first RAB meeting was held on Wednesday, May 14, 2003, in the Clearview City Ball Room.
2. Copies of the agenda and sign-in sheets are attached.
3. Mr. Tony Spaar, the Commander's Representative at SFAAP, called the meeting to order at approximately 6:00 pm. Introductions were made around the room.
4. Comments were requested regarding the draft minutes from the March 5, 2003 meeting. A motion was made and seconded to accept the minutes as written. The motion passed.
5. Mr. Spaar gave a report on the Installation Action Plan (IAP) meeting held last week, May 6-8 in Lawrence, Kansas and handed out the new cost to complete spreadsheet. Mr. Spaar stated to note the bottom line – the new cost to complete for Sunflower is \$72.818 million. Mr. Spaar stated that the approximate \$14 million increase is due primarily to the following:
 - a) The Army requires the use of cost-estimating software called “RACER” if there is no feasibility study (FS) for the site. RACER tends to capture more of the true costs, thereby resulting in a higher cost estimate.
 - b) During the course of the remediation process, regulators often request additional analytes, more groundwater monitoring wells, more soil samples, etc., which were not originally added into the project costs, thereby increasing the total cost to finish the project.
 - c) Many of the sites have explosive hazards which require an Explosives Safety Submission which discusses how the site will be safely investigated and remediated.
 - d) As a result of the Environmental Baseline Survey (EBS), some of the existing SWMU boundaries were expanded; the cost associated with investigating and cleaning up these additional areas had not previously been included in the cost to complete.

Mr. Jim Oyler asked what has been spent to date cleaning-up Sunflower. Mr. Spaar stated \$17.8 million in previous years and \$3.6 million this year for a total of approximately \$21.4 million.

Mr. Spaar continued and stated that the cost to complete estimates were based on the establishment of a Corrective Action Management Unit (CAMU), of which there are two types:

- a) Type I which serves as a temporary treatment area and
- b) Type II which serves as a permanent storage area for the disposal of treated soil.

Mr. Spaar stated that he had been approached by EPA to look at the feasibility of a CAMU. He is now researching the idea to see if it will work at Sunflower. If the CAMU is not feasible for Sunflower, the cost to complete will increase approximately \$12 to \$16 million. Mr. Bill Maasen asked if a location had been selected for the CAMU. Mr. Spaar stated that the best place for the CAMU would be somewhere that is already bound by restrictions. Initially, SWMU 18 appeared to be the best location; however, existing conditions make it unfavorable. First, the extensive cost involved in placing a good cap on SWMU 18 exceeds Sunflower's immediate budget. Secondly, if the existing funds were spent capping SWMU 18, Sunflower would not meet its high DPG goals for the high priority sites since SWMU 18 is a low priority site. Additionally, only about 12 acres are needed for the CAMU, which is much smaller than SWMU 18. Therefore, SWMU 20 may appear to be the best potential site for a future CAMU.

Mr. Maasen then asked how a landfill fit into the future land use plan, as he didn't recall seeing any such plan for a landfill. Mr. Spaar stated that there are landfills currently in existence on Sunflower property that will remain following the potential transfer. At a meeting on February 21, 2003 at Sunflower AAP Mr. Spaar told the entire board of Johnson County Commissioners that their Land Use Plan needed to be modified because they had placed residential housing over the existing landfills. According to Mr. Spaar, the commissioners had said that they knew that the plan needed to be revised. Mr. Ken Herstowski stated that Mr. Maasen is right and there's no landfill outlined in the county's plan.

Mr. Tom Price then asked if SWMU 20 could be a parking lot. Mr. Spaar stated that it would be too tall. (After looking into this following the RAB meeting it was determined that parking lots, soccer fields, etc. could be built on top of the CAMU at SWMU 20.) Then Mr. Price asked about SWMUs 18 and 19. Mr. Spaar stated that SWMUs 18 and 19 could be a parking lot, but it would be better to leave it as a large open area. Mr. Maason then asked for confirmation that they are looking at cost savings. Mr. Spaar requested that everyone look at the cost to complete for SWMU 20 of \$2.8 million in FY05. This money is for cleaning the lagoons, checking the liner, and preparing the site for the new liner and CAMU.

Ms. Berger then asked if the previous cost to complete of \$58 million had included the costs for off-site disposal? Mr. Spaar stated that it had. Ms. Berger then asked what had happened to the costs. Mr. Spaar explained that the additional costs had put pressure on him to check on the feasibility of the CAMU. Ms. Meier stated that Mr. Spaar had explained some of the reasons behind the increase. Ms. Berger stated that she doesn't understand whether the increase in costs were more the result of the new areas of contamination or the application of the software. Mr. Spaar stated that the increase in the total cost were the result of both and provided examples.

Mr. Herstowski stated that 10 years ago when cleanup began at Sunflower, the team primarily looked at the ditches, but now the team knows that the areas around the buildings are contaminated as well and that the contaminated areas around the buildings need to be cleaned up or the ditches will become more contaminated. Mr.

Spaar stated that when he took over at Sunflower, he found documents that stated how much soil needed to be removed, but no documentation on how these numbers were derived. Now the team has used the remediation at SWMU 10 as a template to get better estimates. As a result of the increase in the cost to complete last year, Sunflower was audited and will likely get audited next year due to the additional cost to complete increase.

Mr. Maasen stated that if someone else takes over, they can make the decision whether or not to have the CAMU. Therefore, if someone were going to take over, they wouldn't put it in the plan. Mr. Herstowski stated that, based on his previous experience, developers usually try to just get rid of the contamination and haul it off-site. Mr. Spaar stated that the Army has to prepare their plan as if the Army were going to complete the remediation – not a developer.

Mr. Maasen then asked when an IAP would show a fewer number of years for cleanup completion. Mr. Spaar stated that as the Cost-to-Complete increases it will continue to extend the length of the program, and if the CAMU doesn't pass, the program completion will be pushed out an additional two to four years.

Mr. Oyler stated that the \$92 million is strictly for the cleanup of the SWMUs and doesn't include all costs. He then asked if the soils at SWMUs 21, 22, and 20 could be treated and placed in the CAMU. Mr. Herstowski explained that due to the fact that these sites are being remediated before the CAMU is in place, the costs for these SWMUs included off-site disposal. Mr. Oyler then asked where the feasibility was. Mr. Spaar explained that the feasibility is just in the cost savings of approximately \$12 to \$16 million. Mr. Oyler then asked if the CAMU would have been in place, would the soil at SWMUs 10 and 11 have been kept on the site? Mr. Oyler was told that they would have been. Mr. Herstowski stated that the soil piles at SWMUs 10 and 11 were a Type I CAMU. Mr. Oyler then asked, "What about the current POL contaminated soil at SWMU 21?". Mr. Spaar stated that those soils are different and they are being treated in a biotreatment unit. Mr. Herstowski stated that there will be on-site biotreatment for a long time.

Mr. Oyler stated that there are landfills at Sunflower that will remain whether or not a CAMU is approved. Mr. Herstowski handed out inserts from the Federal Register regarding CAMUs. Ms. Berger then asked what the components of the Feasibility Study were. Mr. Keith Walker stated that every attempt would be made to maximize the use of the land that is already bound by land use restrictions (i.e., landfills that can't be remediated to residential standards, so they will always be restricted). In addition, there are many geological and hydrological considerations. The components of the landfill and how they will affect the future land use need to be determined. How far the soil needs to be transported across the Plant also needs to be considered, as it could be cheaper in some instances to ship off-site. Mr. Walker stated that the Ash Lagoons offer a flat area with no vegetative cover with sufficient depth to groundwater with existing clay earthen berms. SWMU 20 offers an area away from clean areas. Capital costs to bring in the equipment to treat the soil are about the same whether a small or large amount of soil is treated. Mr. Walker further explained that in 1987, the Army conducted a study to evaluate a potential site for a

landfill. Siting a landfill requires a lot of study including groundwater levels and how the landfill will impact the groundwater and aesthetics of the area. Mr. Oyler then asked if the treatment would be the same as that used as SWMUs 10 and 11. Ms. Judy Meier stated that it would be. Mr. Oyler stated that Deffenbaugh used the soil differently and that he's afraid that the soil will look like the chat piles in Oklahoma. Mr. Spaar stated they will be using topsoil that is already stockpiled onsite in the Nitroguanidine Area to cover the treated soil. Mr. Herstowski then explained the requirements of a landfill. Mr. Oyler asked if a transfer occurred, would EPA be cut-out. Mr. Herstowski stated that EPA would not be cut-out. If a CAMU is approved, EPA will still have jurisdiction. Dr. Randy Carlson stated that even if there's a transfer, the RCRA permit goes with the property.

6. Mr. Spaar then asked for comments from Mr. Dave Rhodes who had attended the IAP Workshop. Mr. Rhodes stated that going to the IAP Workshop gets participants up-to-speed on the sites and the cleanup process and that he encourages everyone to attend if given the opportunity.
7. Ms. Meier then discussed the obligation plan and the funds that had been requested. Ms. Meier stated that as part of the ITS settlement, the Corps of Engineers received \$550,000 that was earmarked for Sunflower. These funds were set aside, as it was originally thought that with the use of these funds for resampling, sites could be closed. These funds are being used for resampling efforts at SWMUs 20, 44, and 52. Mr. Spaar explained that since these funds were not congressionally obligated, Sunflower had received \$550,000 on top of the \$3.2 million obligated by Congress.

Mr. Oyler asked what the hot spots were at the Rocket Test Area. Mr. Herstowski stated that hot spots are small areas of contamination. Dr. Carlson stated that a little lead and propellant had been found in certain areas. Mr. Herstowski explained that the operators would take the rocket grain prepared at SWMU 10 and test it at SWMU 14 and occasionally it exploded. Mr. Spaar stated that by the end of the month, Sunflower will be fully expended, so Mr. Spaar will submit a new list of expenditures for Sunflower to the members at the next RAB meeting

8. As a representative for Environmental Chemical Corporation (ECC), Ms. Michelle Beckman with Burns & McDonnell then provided members with a verbal summary of the LTM actions. On April 29, ECC transmitted the revised Quality Control Summary Report, May 2002 Initial Sampling Event, SFAAP, to the Corps, Sunflower, and the regulators. This document included approved responses to Corps review comments. On May 2, ECC transmitted the Working Draft, Long Term Monitoring Report, SWMUs 11 and 41, 2002, SFAAP, to the Corps, Sunflower, and the regulators for review. The Working Draft Data Summary Report, SWMUs 13, 27, and 48, 2002, SFAAP, is scheduled for transmittal on May 13, 2003.

Next, Mr. Phil Rosewicz with the Corps of Engineers discussed the LTM actions at SWMU 50. Mr. Rosewicz stated that there was scattered debris to the north which may require extended maintenance. Sunflower will need to keep an eye on the landfill and the slope may need riprap placed to address the erosion on the slope.

Ms. Meier then discussed the LTM sampling efforts. SWMU 11 is scheduled for sampling in May. SWMUs 33/35 will be sampled in May and possibly in September if hits of lead or PAHs are detected. SWMUs 33/34 will be sampled for closure in May.

9. Mr. Keith Walker with Shaw Environmental and Infrastructure provided a series of handouts regarding their work at SFAAP , which he then discussed. During his discussions, Mr. Herstowski asked Mr. Spaar to explain why the Explosive Safety Submissions (ESSs) were now necessary. Mr. Spaar explained that ATK (Alliant Techsystem) had conducted an ESS on the buildings, but now Sunflower needs to look at the soils. Since ATK is no longer working at Sunflower, that expertise has been lost. Typically, Alliant's work wasn't ER,A-eligible, but the soils around the buildings are.
10. Mr. Oyler asked what the percent of the treatment material was when the soil is encapsulated. Mr. Walker explained that the same people that tested the material for SWMUs 10 and 11 are testing the new material. They have found that adding 5% cement to a unit of soil was sufficient to create a reaction between the sulfates/phosphates and the lead in the soil. The soil will then pass a laboratory lead acid leachate test.
11. Mr. Ian Sangstrom with Shaw Environmental and Infrastructure presented information on the Stream Study which was conducted to determine if contaminants could be flowing from the SWMUs into streams. Shaw will be evaluating the sample results and defining the human and ecological risks. Shaw collected sediment samples from 34 sampling locations in January. In April and May, Shaw has collected samples from 19 of the 34 locations. Diesel, diethylphthalate, arsenic, nitrocellulose, manganese, and lead were detected above the Kansas RSK values in the sediment. The surface water results were not yet available.
12. Mr. Renny Zajac with Shaw Environmental and Infrastructure then discussed database consolidation at Sunflower. Mr. Zajac discussed the steps Shaw has taken to gather the historical data from previous contractors.
13. Mr. Oyler wants a copy of the SWMU map on CD. Mr. Spaar agreed to provide one. Mr. Oyler asked if the database will contain non-IRP data. Mr. Oyler was told that it would eventually, but was dependant upon funding.
14. Mr. Spaar suggested that New Business be tabled until the next meeting due to time constraints.
15. Next, discussion moved to Questions and Answers. Mr. Don Jarrett stated that he realizes the practicality of a CAMU, but that the County opposes on-site disposal and wants the entire area cleaned up. Mr. Oyler stated that he wanted to make it clear to Mr. Jarrett that there are already trash dumps that will remain on the property. Mr. Jarrett stated that he was aware of the existing dumps, but that doesn't mean that Sunflower should keep doing it. Ms. Annabeth Surbaugh confirmed Mr. Jarrett's opinion. Mr. Oyler stated that if the transfer goes through to a private entity, they can

choose to haul it off or to leave it. Mr. Spaar stated that Johnson County will be forming a redevelopment committee and they will have authority over Sunflower property once the land goes out of Exclusive Federal Jurisdiction and becomes part of the public domain. Now the Army has the authority to make these decisions with approval from the regulators. Mr. Jarrett pointed out that even the Federal government can't make a landfill anywhere they want, as they have to abide by current policy and this is not the current solid waste policy in Johnson County. Mr. Spaar stated the Army can choose to keep the land permanently. Mr. Jarrett stated that the Army would still have to permit it. Mr. Spaar agreed that the Federal Government would have to comply with current Laws and Regulations. The question was posed as to who would pay for the disposal if the transfer were to occur. Mr. Maasen stated that whoever owns it would be responsible.

Mr. Oyler asked if all the testing had been conducted for the new SWMUs. Mr. Spaar stated that CHPPM was still compiling the data. Mr. Oyler asked how many acres are within SWMU boundaries. Dr. Carlson stated that the area within the SWMU boundaries comprises approximately 3,000 acres. Mr. Spaar added that if the actual contaminated areas could all be scrunched together, it would probably only be about 300 acres; however, the contamination is spread out all over the place.

16. A motion was made, seconded, and approved that the next meeting date be moved to the second Wednesday in July, which is July 9, due to the July 4 holiday week.

17. Mr. Spaar then announced that agenda items for the next meeting will include:

- Update of IRP Projects
- LTM Update
- Update of Shaw's Work (Especially the surface water data from the Stream Study).

18. The meeting was adjourned at approximately 8:15 pm.