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MINUTES FROM 17 JULY 2001 RESTORATION ADVISORY BOARD MEETING NAS CECIL
FIELD FL
7/17/2001
TETRA TECH NUS INC



Minutes

Cecil Commerce Center and Cecil Field Airport Restoration Advisory Board (RAB) Meeting Minutes Tuesday, July 17, 2001

The quarterly meeting of the Cecil Field Restoration Advisory Board (RAB) began at 7:10 PM on Tuesday, July 17, 2001. The meeting was held in the Conference Room of Building 82 at the Cecil Field Airport.

The following RAB members were present:

Community Members

Richard Darby, Community Co-Chair
Margaret Day-Julian, RAB Member

Navy, Regulators, and Officials

Mark Davidson
Scott Glass, Navy Co-chair
David Grabka
Debbie Vaughn-Wright
John Flowe, RESD

The following members were absent:

Community Members

Diane Peterson, Alt. Community Co-Chair
Lisa Chelf
William Dike
Iran Maisonet
Edward Renckley
David Scott

Navy, Regulators, and Officials

David Farrell, USFWS
Lewis Murray, USGS
William C. Wilson, SJRWMD

The following support personnel and guests were present:

Andy Eckert (JEDC), Ralph Hogan (J.A. Jones), Bob Simpson (JPA), Diana Stone (JPA), Mark Speranza (TtNUS), Rob Simcik (TtNUS), Mark Jonnet (TtNUS), Ralinda Miller (TtNUS)

Administrative

Richard Darby called the meeting to order at 7:10 PM. The April RAB Meeting Minutes were approved without changes.

Report from RAB Workshop

Richard Darby and Scott Glass attended the Department of the Navy RAB/TRC Training in Denver, CO from May 18th through 20th, 2001. Richard reported that a lot of good information was presented, but that some of it had already been covered by the Cecil Field RAB because it is one of the older RABs. He did not hear a lot of horror stories about RABs being dysfunctional, and in general, there seemed to be trust between most community and Navy co-chairs. A very good presentation on the Navy's budget process was given by Dave Olson. Some information on site closure was presented, and a list of names and contact information for all of the Navy and community co-chairs was received.

Q: Were all bases represented at the conference being closed?

A: No. The RABs were involved in cleanups at active and Base Realignment and Closure (BRAC) bases. Actually, closures were in the minority.

Site 3 Update

Mark Speranza of TtNUS presented an update on the status of Site 3 groundwater monitoring and air sparging (AS) system operations. Ten quarterly groundwater sampling events have occurred at the site from December 1998 to January 2001. The next scheduled sampling event is this week (July 2001). The AS system is currently not operating based on analytical results from the January 2001 sampling event in which trichloroethene (TCE) concentrations were below the system remedial goal of 1,255 µg/L. The system remedial goal was determined using groundwater modeling to calculate the source concentration that would allow downgradient concentrations to naturally attenuate in a reasonable time frame.

AS system start-up was on May 27, 1999, and shut-down was on May 26, 2000 after the April 2000 sampling event in which all TCE concentrations were below 1,255 µg/L. During the October 2000 sampling event, TCE concentrations increased to greater than 1,255 µg/L, and the system was restarted on December 27, 2000. During system operations, TCE dissolved in groundwater was volatilized by the injected air. Increasing concentrations of TCE after the system was shut down are a result of the release of TCE that had been sorbed onto soil particles within the aquifer. January 2001 concentrations of TCE were less than 1,255 µg/L, so the system was shut down on February 14, 2001 and remains off.

Q: Do you anticipate that this cycle of turning the system on and off will go on for a while?

A: Yes, it will probably continue for a while. It is not effective to operate the system continuously because sorbed contaminants cannot be released when the system is running. If TCE concentrations in the latest sampling event rebound to greater than 1,255 µg/L, the system may be restarted and run for a month or so. Subsequent sampling will determine the course from there.

At the March meeting of the Base Realignment and Closure (BRAC) Cleanup Team (BCT), the sampling frequency for all wells at Site 3 was reduced from quarterly to semi-annually. At well CEF-3-28S, closest to Rowell Creek, concentrations of volatile organic compounds (VOCs) remain elevated. There was a discussion at the March BCT Meeting that some type of more active remediation may need to be considered in this area within 1 year if concentrations do not decrease. Right now, we are just continuing to monitor concentrations in groundwater from this well.

In the future, if TCE concentrations rebound above 1,255 µg/L, the AS system will be restarted. All wells with TCE above 1,255 µg/L will be sampled 1 month after system restart. If all concentrations have been reduced to below 1,255 µg/L, the system will be turned off. If not, the system will continue to run, with all wells in question being sampled monthly until the system remedial goal (1,255 µg/L) is reached. When this occurs, the AS system will be shut down.

Overall, the AS system at Site 3 has been successful in cleaning up the source area fairly quickly.

Q: Are the wells at different depths? Do they extend into the Floridan Aquifer?

A: The deepest sparging wells are at approximately 50 feet below ground surface. None of the wells extend into the Floridan Aquifer.

Site 16 Update

Mark Speranza of TtNUS presented an update on the status of Site 16 groundwater monitoring and air AS/soil vapor extraction (SVE) system operations. Eleven quarterly groundwater sampling events have occurred at the site from August/September 1998 to January 2001. The next scheduled sampling event is this week (July 2001). The AS/SVE system is currently not operating based on analytical results from the January 2001 sampling event in which TCE concentrations were below the system remedial goal of 1,000 µg/L. This value was determined using groundwater modeling as described for Site 3.

AS system start-up was on June 18, 1999, and shut-down was on May 26, 2000 after the April 2000 sampling event in which all TCE concentrations were below 1,000 µg/L. During the October 2000 sampling event, TCE concentrations increased to greater than 1,000 µg/L, and the system was restarted on December 22, 2000. January 2001 concentrations of TCE were less than 1,000 µg/L, so the system was shut down on February 7, 2001 and remains off.

At the March BCT meeting, the sampling frequency for source area wells at Site 16 was reduced from quarterly to semi-annually. Because they are seeing successful results, they don't need to keep such a close eye on it.

As described for Site 3, if TCE concentrations rebound above the system remedial goal (1,000 µg/L), the AS/SVE system will be restarted. All wells with TCE above 1,000 µg/L will be sampled 1 month after system restart. If all concentrations have been reduced to below 1,000 µg/L, the system will be turned off. If not, the system will continue to run, with all wells in question being sampled monthly until the system remedial goal (1,000 µg/L) is reached. When this occurs, the AS/SVE system will be shut down.

Groundwater remediation at both sites has been successful. The remaining small amounts of contamination are more difficult to remove. Both systems are expected to operate in pulse mode (short times on/short times off) for some time.

Finding of Suitability to Transfer (FOST) Update

Scott Glass of SOUTHDIV gave an update on the status of the FOSTs. Parcels for which transfer has been completed include:

- Clay County – 641 acres (June 1999)
- JAX Navy Federal Credit Union – 1.1 acres (July 1999)
- Jacksonville Port Authority (JPA) Phase I – 5,751 acres (September 1999)
- Parks & Recreation Phase I – 2,017 acres (December 1999)
- (Jacksonville Economic Development Commission (EDC) Phase I – 7,891 acres (September 2000)
- JPA Phase II – 28 acres (September 2000)

Remaining EDC Parcels to be transferred consist of carveouts from the Phase I parcel and include:

- EDC Phase II – 29 acres (scheduled for September 2001)
 - Includes Tank 199, Building 190, Old Golf Course (MB3), and Building 623
- EDC Phase III – 7 acres (scheduled for March 2002)
 - Includes Buildings 9, 46, 404, 271, and 428
- EDC Phase IV – 252 acres (Scheduled for March 2003)
 - Includes Golf Course (PSC 51), Site 11, PSC 49, Site 5, PSC 32, and PSC 44
- EDC Phase V – 42 acres (scheduled for March 2004)
 - Includes TFM/BFM, PSC 25, PSC 45, and Former railroad bed sites Building 98, Former Fuel Depot and Building 635

Transfer challenges for remaining EDC parcels include:

- PSC 51 – Active Golf Course. The reuse plan is unclear, and it has been difficult for the BCT to define cleanup requirements. In addition, the regulatory driver is uncertain. Discussions are ongoing about whether the site is to be considered a CERCLA site (requiring an RI/FS, ROD, and 5-Year Reviews) or an “Other” site (with cleanup to support reuse). These issues may affect the transfer schedule.
- Building 635 – Former Railroad Bed site. The extent of polynuclear aromatic hydrocarbon (PAH) contamination has been greater than expected and difficult to define, and this may affect the transfer schedule.
- Building 199 – Petroleum site. This is the first site being transferred with land use controls (LUCs) and deed restrictions. Agreement has not yet been reached on how the LUCs will apply to transferred parcels. The Draft FOST document has been released, and the Navy and the regulators are working on acceptable language. Cecil Field is at the leading edge for property transfer issues, and language approved for this site may be used as a standard/template for other sites at other bases.

Remaining JPA Parcels to be transferred include:

- JPA Phase III – 47 acres (scheduled for December 2001)
 - Includes Sites 1, 2, 7, 8, and 17, Building 367, Fuel Pits, and PSCs 39 and 44
- JPA Phase IV – 9 acres (scheduled for June 2002)
 - Includes Jet Engine Test Cell, South Fuel Farm, and Buildings 82 and 860
- JPA Phase V – 90 acres (scheduled for June 2003)
 - Includes Sites 3 and 16
- JPA Phase VI – 157 acres (scheduled for June 2004)
 - Includes North Fuel Farm, Day Tank 1, Building 312, and Site 36/37/Day Tank 2

Q: How long will there be a crew working at North Fuel Farm?

A: Approximately a month and a half.

Q: Where is Site 17 located?

A: Between Sites 1 and 5.

Transfer challenges for remaining JPA parcels include:

- Sites 1, 2, 7, 8, and 17. Operating Properly and Successfully (OPS) determinations must be approved by EPA as a prerequisite to transfer. Transfer of most of these sites is scheduled for the end of the fiscal year (September), but will depend on progress with the LUC language that must be included with OPS determinations. Because we are still struggling with LUC language, the OPS reports cannot be finalized. OPS approval by EPA is required for all Installation Restoration (IR) sites that are to be transferred.
- Sites 57 and 58 (Buildings 824A and 312). Investigation of these are newly identified solvent plumes on the flightline will effect scheduled transfer of the final JPA parcel.
- North Fuel Farm. The start of groundwater cleanup, and therefore property transfer, was delayed by Fiscal Year (FY) 2002 funding limitations. Currently, groundwater contamination is being delineated following the extensive soil removal effort, which probably changed the configuration of the groundwater plume at the site. Direct push technology (DPT) is being used along with a membrane interface probe to provide a 3-dimensional view of the distribution of groundwater contamination across the site. This information will be used to more effectively design the groundwater monitoring program. It is expected that the monitoring plan will be prepared by the time funding becomes available.

Remaining Parks & Recreation (P&R) Parcels to be transferred include:

- P&R Phase II – 12 acres (scheduled for December 2001)
 - Includes Building 610 and PSCs 40 and 42
- P&R Phase III – 161 acres (scheduled for September 2004)
 - Includes Site 15

Transfer challenges for remaining P&R parcels include:

- Building 610. Soil removal was just completed last week. A well is to be installed and sampled prior to closure. The City needs Phase II sites to support near-term P&R redevelopment plans.
- Site 15. Negotiations to determine alternate cleanup levels for PAHs and lead in soil are ongoing.

Q: What are the contaminants at the P&R Phase II sites?

A: At Building 610 and PSC 42, it is generally PAHs. At PSC 40, it is metals.

Proposed Plans for Sites 21, 25, and 45

Mark Speranza of TtNUS presented a summary of the Proposed Plans for Sites 21, 25, and 45. These sites began as either “gray” sites or Areas of Interest (AOIs) and then were elevated to Potential Sources of Contamination (PSCs). Time-critical soil removals were conducted based on Action Memoranda, and groundwater contamination required that the sites enter the CERCLA process (RI/FS, Proposed Plan, ROD). At Site 21, 2,962 tons of soil were excavated in June 2001 to support industrial reuse. At Site 25, 1,473 tons of soil were excavated in May 2001 to support residential reuse. At Site 45, 364 tons of soil were excavated in August 2000 to support industrial reuse.

Site 21

Site 21, the Former Pesticide Mixing Area, has been used as a golf course maintenance area since the 1950s. Activities include storage and mixing of pesticides and herbicides and storage and maintenance of golf course equipment. Groundwater concentrations of chlordane and 4,4-DDT in one well are slightly greater than the Florida Department of Environmental Protection (FDEP) groundwater cleanup target levels (GCTLs). The calculated excess lifetime cancer risk (ELCR) associated with these concentrations is 2.4×10^{-6} . This is within the EPA acceptable risk range of 10^{-6} to 10^{-4} , but is greater than the FDEP acceptable ELCR of less than 1×10^{-6} . Because the ELCR for Site 21 exceeds the FDEP value, groundwater remedial action is required.

The remedial alternatives considered for Site 21 groundwater include:

- 1.) No action (This is a required part of the evaluation.)
- 2.) Natural attenuation, Institutional controls (ICs), and Monitoring. Cost (present worth) of \$98,000 and 50 months to reach cleanup goals.
- 3.) Pump and Treat (Extraction, Onsite treatment, Surface water discharge, ICs, and Monitoring). Cost of \$784,000 and 39 months to reach cleanup goals.

The BCT evaluated these alternatives and recommended Alternative 2, natural attenuation. Because groundwater concentrations were only slightly above GCTLs and were in one well only, the increased cost of Alternative 3 was not justified by the slightly shorter timeframe.

Q: How does Site 21 affect the playability of the golf course? How does it affect the transfer of the golf course?

A: It does not and will not affect playability. Site 21 can be transferred as a carve out within the golf course after the natural attenuation monitoring system is in place and the OPS determination has been approved by EPA (OPS is currently not anticipated for the golf course because it may be under different regulatory requirements, not CERCLA). LUCs for groundwater can be dropped after concentrations have been reduced to below the GCTLs. ICs will continue to be required for soils because of the soil cleanup to industrial criteria. The industrial cleanup would be supportive of a recreational reuse (meets recreational criteria), which is consistent with keeping it as a golf course.

Q: What is the timeframe for transfer of Site 21?

A: It is scheduled to be transferred with EDC Phase V (March 2004).

The Proposed Plan for Site 21 will be issued in late October. The public comment period will be announced in a local newspaper. If requested, a public meeting will be held at the October or January RAB meeting.

Site 25

Site 25 was used for storage of transformers on unpaved ground until the 1990s. It also includes a pesticide storage building that was used from 1956 to 1975. The groundwater concentration of BHC (a pesticide) in one well is slightly greater than the FDEP GCTL. The calculated ELCR associated with this concentration is 5.1×10^{-6} . As with Site 21, groundwater remedial action is required because, although the ELCR for Site 25 is within the EPA's acceptable risk range, it exceeds the FDEP risk criterion of less than 1×10^{-6} .

The remedial alternatives considered for Site 25 groundwater include:

- 1.) No action (A required part of the evaluation.)
- 2.) Natural attenuation, ICs, and Monitoring. Cost \$85,000 and timeframe of 16 to 32 months.
- 3.) In-site enhanced biodegradation, ICs, and Monitoring. Cost of \$578,000 and timeframe of 36 months.

4.) Pump and Treat (Extraction, Onsite treatment, Surface water discharge, ICs, and Monitoring). Cost of \$702,000 and timeframe of 25 months.

The BCT evaluated these alternatives and recommended Alternative 2, natural attenuation. Because the groundwater BHC concentration was only slightly above the GCTL and in one well only, the increased cost of Alternatives 3 and 4 were not justified. In addition, there is some question about the effectiveness of Alternatives 3 and 4 to remediate BHC.

Q: Why is the timeframe for Alternative 3 longer than Alternative 2, which involves just natural attenuation and monitoring?

A: There is some upfront time for the treatability study required for this alternative, so it would take longer to start the actual treatment process.

Q: What is the footprint of the plume?

A: There is not really a plume; only one well is contaminated. The footprint would be an approximately 100-foot circle around that well.

Q: Can the area around the contaminated well be carved out and the remainder of the site transferred? The area is marketable if it could be transferred and built on.

A: That is an option. Because the soil removal was to residential criteria, there would be no restrictions for surface work.

As with Site 21, the Proposed Plan for Site 25 will be issued in late October. The public comment period will be announced in a local newspaper. If requested, a public meeting will be held at the October or January RAB meeting.

Site 45

Site 45, the former steam plant (Building 11), was built in 1941 and generated steam for use on the Base. Building 7, a hazardous materials storage building, was built on the site in 1989. Fuel storage tanks are also associated with the site. Vanadium concentrations in groundwater do not pose a significant health risk on a site basis, but the FDEP GCTL is exceeded in five wells. The hazard index (HI) for the site is 0.4 – typically, a HI of greater than 1 is unacceptable. The calculated HI for Site 45 is within the EPA risk range. The FDEP GCTL is a TBC (a criterion that is “to be considered”), although there is no legal driver mandating cleanup of vanadium at these concentrations.

The remedial alternatives being considered for Site 45 groundwater include:

1.) No action (A required part of the evaluation.)

2.) Natural attenuation, ICs, and Monitoring. Cost of \$68,000 and timeframe of greater than 30 years.

3.) Pump and Treat (Extraction, Onsite treatment, Surface water discharge, ICs, and Monitoring). Cost of \$601,000 and timeframe of 18 years.

In addition, innovative technologies were evaluated, but there are not really any that have been proven to treat vanadium effectively, and those that might work require treatability studies and have high costs.

The BCT evaluated these alternatives and recommended Alternative 2, natural attenuation. However, this decision has not been finalized because EPA and FDEP management have not yet concurred. This alternative was recommended because of the low mobility of vanadium, the lack of an unacceptable health risk, and the high cost and/or questionable effectiveness of other options.

As with Sites 21 and 25, the Proposed Plan for Site 45 is scheduled for release in late October. The public comment period will be announced in a local newspaper. If requested, a public meeting will be held at the October or January RAB meeting.

Partial Deletion from the National Priorities List (NPL)

Debbie Vaughn-Wright of U.S. EPA provided an update on her activities to remove several sites within Cecil Field from the NPL (partial deletion). A few months ago, the City of Jacksonville requested that EPA consider partial deletion from NPL. When bases are initially listed on the NPL, it is from fence line to fence line, instead of as individual sites, because there are many unknowns over large areas. In 1995, EPA developed the idea of partially delisting parts of bases where large areas are determined to be clean or where remedial actions have been completed.

At Cecil Field, all sites, buildings, open areas, etc. are being evaluated using the following three criteria:

1. Have all appropriate response actions been implemented, including implementation of ICs, OPS determinations, and Land Use Control Implementation Plans (LUCIPs)?
2. Has the site been determined to require no further action (NFA) by the responsible party (Navy)?
3. Has a Remedial Investigation (RI) shown that any releases that may have occurred do not pose a risk to public health or the environment?

Because the base is a BRAC facility, all of the sites have already been looked at, but Debbie is going through them again one by one to make sure that nothing has been forgotten and to confirm that the files are complete. It is anticipated that only IR carveout sites (OUs) and a few PSCs will remain on the NPL. All sites that remain on the NPL will require further work under CERCLA. Petroleum sites are regulated under the State's program and can be excluded from the NPL even if further work is required. This is because they do not require any further work under CERCLA.

The site evaluation process is ongoing. When the research effort is finished, a Partial Deletion Docket will be prepared for approval and a Notice of Intent to Delete will be printed in the Federal Register announcing a 30-day comment period. If no comments are received, the partial deletion will automatically take place. If comments are received, responses must be prepared, and the process is delayed. If someone would like to express support for the partial deletion, he/she should just tell Debbie. Any official comments, even if they are in support of the deletion, must be responded to, and this will slow down the process. Debbie requests that official comments be submitted only if there are concerns about the deletion.

Q: Why does the City want partial deletion?

A: Inclusion on the NPL is a "red flag" for developers and investors, and removing the designation might encourage additional development and investment at the site. In addition, the parts of the base that are removed from the NPL become eligible for Brownfields grants, tax credits, redevelopment funds, etc.

Q: Will all OUs and some PSCs stay? What about the OUs that have been NFA'd?

A: All OU sites that do not have an NFA determination will stay on the NPL. OU 4, Site 10 and OU 5, Site 14 have been NFA'd and can be included in the deletion proposal.

Q: How long will the process take?

A: Not sure.

Q: Is there any way to work the Golf Course (PSC 51) into the deletion list within the expected timeframe?

A: This is unlikely because it is still a big unknown. Discussions are still ongoing as to the status of the site. It may be classified as a pesticide release by EPA. For now, it stays on the NPL unless some resolution is reached very soon.

Q: How far along are you in the process?

A: About 50%.

Q: Has the EPA done partial deletions before?

A: Yes, but it is not common. Debbie has never been involved in one. Cecil Field is a larger site than most of the other partial deletions she has looked at.

Q: Will the partial deletion include the parks in Clay County?

A: Yes.

The guidance on preparing a partial delisting says to outline the areas to be deleted, but Debbie is finding it easier to outline the sites that will stay on the NPL. These areas have already been surveyed as part of the carveout process, providing the latitudes and longitudes needed for the deletion application.

Site 15 Human Health/Lead Exposure

Ron Kotun of TtNUS presented a summary of the human health risk assessment for Site 15, the former skeet range and ordnance disposal area. Soil contaminated with lead and PAHs has been delineated at the site, with lead and PAH contamination generally occurring in distinct areas. Proposed future use of the area is as a “green space.” The site is forested, with various access roadways, and the soil surface is covered with a layer of leaves and pine needles (referred to as “duff”) that is up to 6 inches thick. This duff layer minimizes exposure by preventing direct contact with the soil beneath. Soil samples only were collected at the site – the duff layer was not included. The site is expected to remain a forest with no significant development, such as parks, playgrounds, etc., anticipated.

People can be exposed to lead by breathing air, drinking water, or eating foods with lead, or breathing or eating dust or dirt with lead. Uptake of lead through the skin, direct contact, is not a significant exposure pathway because metals do not easily penetrate the skin and are not readily absorbed. Preschool children (ages 0 to 5 years) are more likely to be exposed to lead because of their mouthing activity (eating dirt, paint chips, etc.). These children, in addition to the developing fetus, are most susceptible to damage from exposure to lead. For this reason, regulatory criteria for lead are generally developed to protect the fetus and young children.

PAHs are widespread in the environment due to human activities involving fossil fuel combustion (auto emissions, industrial emissions, burning wood, barbecuing, etc.). Exposure to PAHs can also occur by incidental ingestion of soil, ingestion of foods with PAHs (charred), and inhalation of polluted air and cigarette smoke. Direct application of PAHs can cause skin irritation; however, because PAHs adhere strongly to soil, it is unlikely that these compounds will move from soil to skin. Some, but not all, PAHs are known animal carcinogens and probable human carcinogens.

At Site 15, approximately 400 soil samples were collected for lead analysis, and an additional 400 samples were collected for PAH analysis. Lead concentrations in soil at Site 15 range from not detected to a maximum concentration of 65,500 mg/kg. The average lead concentration across the entire site is 1,157 mg/kg. The exposure area used in the Site 15 human health risk assessment is the entire 85 acres that make up the site because exposure can take place anywhere on the site. The exposure concentration to be compared to criteria is based on the average concentration across the site. This is because, when using the site as green space (no development), people will not be spending all of their time at one location. Their activities will not be focused in specific developed areas such as playgrounds, ballfields, or other places that would be returned to frequently. Exposure is best represented by the average concentration across the entire site, not a specific concentration at one location.

The lead screening level of 400 mg/kg (parts per million) was derived from the Integrated Exposure Uptake BioKinetic (IEUBK) Model, which is based on children exposed in a residential setting. The IEUBK model incorporates exposure through air, soil, water, dust, and diet from both background and contamination sources. Based on the model, the screening level of 400 mg/kg was developed such that children would have an estimated risk of no more than 5% of exceeding a target blood lead level (10 ug/dL). This level assumes exposure 350 days per year for 30 years and ingestion of 100 mg of soil per day. The 400 mg/kg value, accepted by FDEP and EPA, is considered a screening level, not a cleanup level.

Because the average lead concentration (1,157 mg/kg) is greater than the residential screening value, Site 15 is currently not acceptable for residential use. The extent of soil cleanup required for residential use would be determined based on dividing the site into ½-acre residential exposure areas and determining the average

concentration in those areas. In addition, site-specific information can be used to develop an alternate screening level.

FDEP's industrial soil cleanup target level (SCTL) for lead is 920 mg/kg based on an adult lead model. This model assumes exposure 219 days per year and ingestion of 50 mg of soil per day. The EPA industrial screening level is 750 mg/kg. Because the average lead concentration at the site is greater than these industrial values, cleanup would also be required for industrial use of Site 15.

The recreational screening value, derived using site-specific assumptions agreed to by the BCT, is 3,300 mg/kg. This value was developed using the adult lead model and assumes exposure for 50 days per year for 20 years and ingestion of 50 mg of soil per day. The average site concentration (1,157 mg/kg) is less than the recreational screening level; therefore, Site 15 is currently acceptable for recreational use.

The conclusion is that, based on future recreational use of the site, soil lead concentrations would not pose any adverse impact to human health. This recreational use involves exposure over a large area, so elevated concentrations at single sampling locations are not of concern – exposure would be to an area, not a point. The lack of planned future development will reduce the likelihood of repeated, localized exposure to individual points. In addition, exposure to soil (and dust) is minimized by the presence of the duff layer. To be exposed to the soil, a person would have to remove the duff layer.

Although cleanup of lead at Site 15 is not required based on human health risks, cleanup to protect ecological receptors may still be required. Investigations are ongoing to determine if lead and PAHs pose adverse impacts to ecological receptors. A recent sampling event was conducted to assess impacts to the food chain (insects, birds, etc.). In addition, remediation may be required to reduce exposure to carcinogenic PAHs.

Q: If all of the duff were burned off (i.e., in a forest fire), would the site still be okay?

A: Yes, for recreational use.

Q: Would camping in a tent be ok?

A: Based on the recreational model with exposure across the site to the average lead concentration, a person could safely camp at the site for one day per week for 20 years.

Q: How deep does the contamination extent?

A: The lead contamination is a result of lead shot "raining down" on the area during its use as a skeet range, so contamination at depth would not be expected.

Sites Update and PSC Update

Mark Davidson of SOUTHDIV briefly reviewed the status of sites at Cecil Field, referencing the Sites Update document distributed with the July RAB materials and the PSC and Grey Site Schedule/Status Table available today.

For OU 1, the draft OPS Report, a precursor to transfer, was submitted in June 2001. At Site 7, groundwater contamination has been reduced to benzene only in one well. An air sparging pilot test using a portable sparge unit was conducted and the concentration initially decreased to below the GCTL, but then rebounded to about the same level it was before. Groundwater monitoring will continue at Site 7. At the North Fuel Farm, we are now "re-baselining" groundwater contamination following soil removal activities. A groundwater monitoring design plan will be developed based on the data collected.

Limited soil and groundwater contamination was found at 103rd Street and Wesconnett, and investigations continue there. The investigation of pipeline anomalies and valves identified seven areas that required further evaluation. Following evaluation, NFA was recommended for two of the areas. The remainder of the areas are located on Florida Department of Transportation (FDOT) rights-of-way, and remediation would disturb roadways. Discussions are ongoing between FDEP and FDOT to approve use of the existing FDOT system

of documenting and tracking soil contamination on rights-of-way for these areas to prevent disturbance to roads.

The nutrient-enhanced air sparging system for groundwater remediation at Building 9 has operated since January 2001. Two wells were contaminated, and concentrations in one of those wells are now below GCTLs. A similar system at Building 46 was also started in January 2001. Seven wells had groundwater concentrations above GCTLs, and concentrations remain above GCTLs.

Two underground storage tanks (USTs) were located in July 2001 near Building 858. This building is scheduled to be renovated in September, and tank removal work should begin in the next few weeks.

The Public Health Assessment document by the Agency for Toxic Substances and Disease Registry (ATSDR) was released, and the Navy is preparing a reply.

As detailed on the PSC/Grey Site Status Table, soil excavations completed since the April meeting include Sites 21 and 25, Building 610, and Former Fuel Depot and Building 98, former railroad sites. The Site 36/37 soil excavation is in progress, and excavation to residential criteria is scheduled for another former railroad site, Building 535. (This site was originally dug to industrial criteria). Open sites remaining at the next meeting will include Building 635, PSC 49, Site 15, and the active golf course.

Conclusion

Richard Darby adjourned the meeting at 9:25 P.M. The next meeting is tentatively scheduled for October 16, 2001 at the same location. If anyone has any suggestions as to future RAB agenda items, contact one of the BCT members. If the location changes, a public notice will be placed in the Florida Times-Union announcing the new location.