

## NASJRB WILLOW GROVE RAB MEETING MINUTES

Meeting Date: September 13, 2000

Meeting Time: 6:00 p.m.

Meeting Place: Navy Conference Room, Building 1, NASJRB Willow Grove

Attendance:	Name	Organization
	Mary (Liz) Gemmill	(Community ) Co-Chairperson
	John C. Martin	RAB Member
	Kaye Maxwell-Martin	RAB Member
	CDR Gilbert Viera	NASJRB Willow Grove (Co-Chairperson)
	LCDR. Bill Schoen	NASJRB Willow Grove
	Jim Edmond	NASJRB Willow Grove
	Hal Dusen	ARS Willow Grove
	Charanjit Gill	ARS Willow Grove
	Col. Dana Marsh	ARS Willow Grove
	Lt. Jacqueline Siciliano	ARS Willow Grove
	Carl Heckelman	Army Corps of Engineers
	Jim Baron	Army Corps of Engineers
	Scott Shaw	HSI Geotrans
	James Colter	NORTHDIV
	Jeff Dale	NORTHDIV
	Ron Sloto	USGS
	Russ Turner	Tetra Tech NUS, Inc
	Kevin Kilmartin	Tetra Tech NUS, Inc
	Carl Reitenbach	EA Engineering and Science
	April Flipse	PA DEP
	Pamela Reigh	PA DEP

A brief site visit, planned to precede the meeting, was canceled due to the low community attendance.

Jim Edmond opened the meeting, noted that only three community RAB members were present and thanked those present for coming. Mr. Edmond gave a brief update on the F-14 mishap. The Navy removed the trees, stumps and soil contaminated with jet fuel from the crash site. Confirmation soil sampling results were submitted to Pennsylvania DEP (Pamela Reigh and April Flipse) who reviewed the results and found them within regulatory limits. The site has been cleaned, leveled and graded. The Navy has planted 50 Japanese white pine trees to screen the site from the road and nearby residences. The final action this year is to hydroseed the disturbed area with grasses. In the Spring of next year, the Navy will sponsor a tree planting effort in conjunction with local organizations like the Boy Scouts, to complete restoration of the area. Mr. Edmond noted that the soil samples taken indicate that (spilled fuel) concentrations were well within the most stringent soil cleanup regulatory limitations.

A RAB Member (Liz Gemmil) wished to express condolences on behalf of the RAB and the community at large to the families of the pilots and the Air Base family.

CDR Viera replied that the families of the pilots have been very grateful for the support the community has shown, especially to the daughter of one of the pilots. Funds have been received for a scholarship for her. The families have received the crosses, flags, and other momentos, like the kind drawings local children have done and placed near the site in sympathy with the families. Thank you very much.

Jim Edmond mentioned that Tetra Tech NUS has been working at Site 5 - the former Fire Training Area, installing wells and performing a rock core investigation, and introduced Jim Colter to summarize recent and pending events planned within the Installation restoration program.

Jim Colter mentioned that the Navy has been performing the activities outlined at the last RAB meeting as defined in the Work Plan for Site 5 distributed to RAB members. Tetra Tech will give an update on those activities. Mr. Colter presented a time-line for activities at Site 5 in response to RAB requests for planning information the Navy may have. This time-line gives the RAB an idea of the lengthy list of tasks the Navy has planned to comply with the "laundry list" of comments and requests received from EPA for this site. When the current sampling is completed and the analytical results are received, the Navy will begin to finalize the Remedial Investigation (RI) report for Site 5. The Navy has decided to prepare individual RI reports for each site to facilitate comment and response. As soon as the Site 5 RI report is complete, the Navy will begin to prepare the Feasibility Investigation (FS) for Site 5 groundwater, to explore potential remedial alternatives for clean-up/response. The Navy would like to see remedial construction/response at Site 5 by August 2001. Results of recent studies will be presented by Tetra Tech NUS.

Kevin Kilmartin began with a review of the status of Site 5 and conclusions from the draft RI report, issued in April 1998. There is a plume of solvents in the groundwater that is confined in the area of Site 5 that does not appear to be moving off the base. In reviewing the draft RI report, EPA expressed concerns and identified several areas for further study. The current activities are in response to EPA concerns of delineation/definition of the plume vertically, solvent movement and geological structure, and source issues. One issue already investigated, was the issue of potential impacts on the Horsham Township well H-26. USGS and the Navy investigated the issue. Dan Goode of USGS gave a report of those investigation findings at the last RAB meeting. Mr. Kilmartin provided a detailed comparison of the types of wells (monitoring wells and supply wells) found in the area and reviewed site geology and the model of the solvent plume. Each issue from the EPA comments was discussed in detail, and the current status of the investigation was presented. Results of the rock core extraction activities were described by Mr. Kilmartin, using photos to show the different strata of rock and fractures. Ron Sloto of the USGS provided more detail of the actual rock coring operation. Mr. Sloto explained that he is replacing Dan Goode, who has moved to Israel to accept a two-year assignment, as the USGS hydrogeologist. Mr. Sloto mentioned that since the rock coring operation had been finished only less than a week before the RAB meeting, he could prepare a presentation for the next RAB meeting.

Jim Edmond asked if the rock core extracted came out in pieces or was it one long rock cylinder, say 17 feet long? Mr. Sloto explained that the photos generally showed the condition of the rock core extracted. It looked like it was a series of broken segments. Generally, everywhere you see a break in the core in the photo there was a fracture in the rock strata there. The exception is that at the end of every ten feet of column, the rock-coring machine makes a mechanical break to facilitate removal of the core segment to that point. Some of the natural fractures were just breaks, and others were water bearing fractures where you could see black or brown iron and manganese deposits on the fracture surface. Mr. Edmond asked if there was erosion effects visible at the fractures. Russ Turner described that you can see the water bearing fractures in the photos, even though the projected image doesn't show it well. It looks like a brown stain on the fracture surface where water has been running leaving a stain behind.

A RAB Member asked, What is the limit of "a little bit more investigation" (requested by EPA). What is the Navy's understanding of this, a little bit means what in terms of dollars and time? Jim Colter replied that as he said back in 1997 the Navy performed a full round of sampling at all four IR sites presented in the thick RI report issued for comment. The current investigation is being performed in response to EPA comments on that document. A RAB Member asked if there could be more comments on the recent investigations (and more investigation in response)? Mr. Colter stated that yes, there could be, until the Navy, State and EPA agree that the groundwater plume is delineated. A RAB Member stated that we could go on forever on this thing. Mr. Edmond interjected that the purpose of the EPA comments is to err on the side of public safety if there is any question of their mandate to protect public health and the environment. These comments and resulting investigations are filling data gaps to be sure that our model of the contaminant plume accurately reflects the situation so that groundwater users on and off base are safe. Mr. Colter agreed that the EPA comments were valid in that the Navy was basing conclusions on one or two data points, and that it seemed reasonable to collect more complete information. That

10/17/00

way, the Navy can avoid implementing a costly remedial construction activity that might miss a significant portion of the contamination. This process can actually save money (and time). The comments were pretty good in that respect. Now we have a handle on the unknown issues. We shouldn't have any more data gaps we can't fill as part of design of the eventual remedial system, but we have to submit this to EPA and the State for their view.

Charanjit Gill of the Air Force introduced Scott Shaw of HSI Geotrans to discuss the current status of remediation and the pilot study underway at Air Force Site Number One - the POL site. The August sampling results will be discussed.

Mr. Shaw summarized the orientation/location of the site to be covered in his presentation. The locations of the original ORC (oxygen releasing compound) injection one and a half years ago, and again about four months ago, were pointed out on a map of the area. Mr. Shaw also pointed to the monitoring wells used to evaluate progress as well as other site features. The Air Force recently completed a groundwater model similar to the one referred to by Kevin Kilmartin. The Air Force model divided the area into grid squares of 20'X20' in the area near the POL area, and into grid squares of 100'X100' further out from the POL area. The water table was plotted on the resultant grid. Unlike the case discussed by the Navy, where the solvent is heavier than water, and therefore sinks, dissolving as it goes, Jet fuel floats on water.

Using a process called "particle tracking", it is deduced that a particle spilled at the POL area flows downgradient and is discharged at the stream. Using graphic slides, Mr. Shaw described the concentrations of BTEX (benzene, toluene, ethylbenzene and xylene) found in monitoring wells at site over time. All in all, levels are decreasing at the site for the entire site.

From the Air Force's perspective in light of the historical data, the most recent sampling results continue to be encouraging. The evidence suggests that intrinsic remediation is ongoing and perhaps a significant process at the POL area that may be enhanced to improve the rate of remediation.

A RAB Member asked if any thought has been given to the oil industry and their way of getting the last of the hydrocarbons out of the wells, in other words, an active pumping scenario of some type now? Has the Air Force tried pumping a solution into the ground to flush out the hydrocarbons? Mr. Scott replied that the problem with using a solution like this is actual delivery of the compound you are using so it affects a wide enough area. You can't guarantee to actually get the solution to where it has to be to remove the remaining product from the subsurface system. LCDR Bill Schoen discussed the problems of attempting a "flood" using water or some other chemical compound to extract hydrocarbons. Typically, because of the difference of permeability from place to place, you actually end up with "fingering" and actually bypass sections of the formation. The oil in the formation tends to stick to the soil rather than flow. A RAB Member asked, We have the same thing working here, right? We need something economical? A RAB Member stated that the difference here is this isn't necessarily hard rock like an oil well would be. The hydrocarbons are in the upper part of the water table, which is broken-up rock (soil), which is more porous and has more places for the jet fuel to stick.

Jim Edmond asked for remaining comments. {None were received.} Mr. Edmond mentioned that The Navy has awarded a contract to Tetra Tech NUS to purchase and install an Internet Server that will contain environmental program information like RAB meeting minutes, the latest Fact Sheet, and eventually the complete Administrative Record for the IR program at NASJRB Willow Grove. A RAB Member asked, what is the address? (<http://nasjrbwillowgrove.navy.mil/index.htm>). The new information will be available on the public access portion of the server in 3 to 6 months.

Jim Edmond announced that the Navy will be breaking ground for the new Haz. Mat. materials storage building out near the Fire Department Building. A RAB Member asked, What building? Mr. Edmond described a hazardous and flammable materials storage building, designed for that purpose, to be

10/17/00

installed near the current Fire Department Building. Mr. Edmond mentioned that the Nature Trail is available - contact the PAO at 215-443-1776. Also, tours of the air Station can be arranged. The Country Fair is scheduled for September 30 at the Air station. There will be a chile cookoff competition in conjunction with the Country Fair.

The next RAB meeting was scheduled for Wednesday, December 6, 2000, at 6:00 p.m.

AGENDA FOR  
RESTORATION ADVISORY BOARD  
FOR  
NAS JRB / ARS WILLOW GROVE  
13 September 2000

5:45-6:15      Tour of Sites

6:15-6:30      Welcome  
Community Member Agenda Items/Comments

6:30-6:35      Clean up of F-14 Mishap Site

6:35-7:00      Update on Navy Site 5 & Future Site Work

7:00-7:15      Break

7:15-7:45      Update Air Force POL Site Remediation

7:45-8:00      a.) Questions & Comments  
                  b.) Set Date for Next RAB Meeting  
                  (6 December 00)  
                  c.) Meeting Adjourned