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MEMORANDUM OF RESTORATION ADVISORY BOARD MEETING OF 10-26-1995 NSB  
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26 October 1995

MEMORANDUM

From: Restoration Advisory Board Co-Chairs

Subj: SUBASE KINGS BAY RESTORATION ADVISORY BOARD (RAB) MEETING  
MINUTES

NAME	POSITION	PHONE EXT
Attendees:		
LTJG Kristin Burbage	SUBASE Co-Chair	673-2728
Richard King	Community Co-Chair	673-7285
LT Jamie McGonagill	Deputy, Facilities & Environmental	673-4604
John Garner	Technical Advisor	673-8845
Mr. Sandi Mukherjee	Technical Advisor	673-1217
Sandy Truett	Environmental Protection Assistant	673-8818
Bob Farris	Community Member	882-2056
Monty W. Thrasher	Community Member	882-2317
Carl Johnson	Community Member	673-8683
John X. Linnehan	Community Member	882-4820
Bill Blankenship	Community Member	882-3192
Bruce Khaleghi	GAEPD	404-656-2833
Mr. Billy Hendricks	GAEPD Hazardous Waste	404-656-2833
Madeleine Kellam	GAEPD Hazardous Waste	404-656-2833
Anthony B. Robinson	SOUTHNAVFACENGCOM	803-743-0339
Bill Barker	GA Dept of Transportation	912-427-5703
D.W. Hicks	U.S. Geological Survey	770-903-9100
Ted Taylor	ABB Environmental Services	615-531-1922
Bob Steller	SUBASE Public Affairs	673-4714
John Peterson	Camden County Administrator	576-5601
Lannie Brant	Camden County Landfill	729-4099
Carl B. Dolton	Camden County Landfill	729-4099
Cathryn Gallaher	Channel 21 - Brunswick	262-6397
Jill Bauter	Camden County Tribune	882-4927
Andy Drury	Southeast Georgian	912-729-5231
Dave Smith	KBAY 106 Radio	729-6106

1. A meeting of the Restoration Advisory Board (RAB) was held on Thursday, October 26, 1995 at 10:00 a.m. LTJG Kristin Burbage, the RAB Navy Co-Chair, welcomed all RAB participants and began around-the-room introductions. LTJG Burbage reviewed the agenda for the meeting and asked if there were any questions concerning the July RAB meeting

minutes. LTJG Burbage distributed copies of the Georgia Times Union newspaper article written by Admiral Delaney, the Navy Regional Environmental Coordinator. Admiral Delaney's article, titled "Navy is Committed to Environmental Restoration," responds to a previous article called "Cutting Back on Base Cleanup."

2. Mr. Sandi Mukherjee, the SUBASE Installation Restoration (IR) Program Manager, provided a status update on Site 11, the Old Camden County Landfill.

a. Using various maps, tables, and graphs, the current status of the investigative and remediation phases were presented. Mr. Mukherjee explained contaminant distributions and discussed findings from the source identification procedure conducted in November 1994. It was mentioned that a discrete or "point" source was not discovered during excavation. This has both positive and negative implications. Not finding a source adds a degree of uncertainty to remedial efforts since we cannot simply go into the landfill and extract the source of contamination and then continue with cleaning up released contaminants. On the positive side, because an extensive amount of excavation was performed with no solvent source found, the source is either very small, or the contamination is a result of a one-time dump or release and no source remains. The excavation efforts also lend to the conclusion that if a source still remains in the landfill, it is not widespread.

b. Questions were raised about the timing of the IR program, when the landfill (Site 11) was first identified as a source of contamination, and how long it was before remedial efforts began. Mr. Mukherjee explained the IR program, the Resource Conservation and Recovery Act (RCRA) permit process, and the identification of Solid Waste Management Units (SWMU's) at SUBASE. Sixteen SWMU's were identified at SUBASE, of which only five have the potential for contaminant releases. These sites have been incorporated into the RCRA Part B permit. Four of the five have been investigated to some degree. Site 11 is by far the most significant SWMU, and the only one undergoing active remediation. Site 12 was investigated and no contamination was detected. A no-further-action plan for Site 12 has been approved by Georgia Environmental Protection Division (GAEPD). The remaining three units are well within the confines of the base and contaminant releases have not been identified from two of the three units investigated (Sites 5 and 16) as they have from Site 11. The final SWMU (Site 2), located near the waterfront, will undergo investigation in the future.

c. The timing of activities at Site 11 was discussed. There was some concern expressed that the IR program started in 1985 and that no action was taken until 1989. Mr. Mukherjee explained how all identified SWMU's go through an initial screening process and there was no reason to suspect that contaminants were a problem at the Old Camden County Landfill until initial intrusive investigations started in 1992. Contaminants were first discovered along the Spur 40 right-of-way in August 1992 and Interim Measure (IM) pumping wells were turned on in March 1994, a 19-month period. In terms of RCRA remedial actions, this is a relatively short time period. Mr. Mukherjee mentioned that the Navy has spent approximately \$3.5 million at Site 11 over the past three years.

d. At this point, several community members commented on how they felt that SUBASE has handled communications with the public admirably. SUBASE has shown obvious concern and commitment to stopping contamination migration with the construction

of the IM system, and has kept the public well informed of the significance of the problem and how it is being managed. The comment was made that the Navy should not interpret poor attendance at RAB meetings as a sign of disinterest, but rather an indication that the community is comfortable with the Navy's actions and attention to the problems. The statement was made by a community member that there will be a point of diminishing returns with the cleanup effort. The \$3.5 million spent at Site 11 is nominal compared to cleanup costs at many sites across the country. Removing all of the contamination from the groundwater may not be cost-justified if little or no risk is involved.

e. A discussion followed about the irrigation wells. The prior risk assessment mentioned that water from the irrigation wells should have restricted use, particularly in terms of consumption. A community member mentioned that the neighborhood residents are aware of this, and in addition, the water has such a bad odor from natural causes, that no one would drink it anyway.

f. Mr. Mukherjee displayed some charts showing trends in chemical concentrations. Vinyl chloride concentrations have decreased, whereas trichloroethylene shows little change from September, 1994 to April, 1995. The upcoming Supplemental RCRA Facility Investigation (SRFI) report will present the collected data in significantly more detail.

3. Mr. Billy Hendricks of the Georgia Environmental Protection Division, Hazardous Waste Branch provided a presentation on hazardous waste, corrective action permits, and how risk assessments fit into the regulatory process at GAEPD.

a. Mr. Hendricks described the difference between a hazardous waste and a hazardous constituent. A hazardous waste is defined by four criteria: (1) ignitability, (2) corrosivity, (3) reactivity, and (4) toxicity. For example, if discarded, fingernail polish remover becomes a hazardous waste because it contains acetone which is a hazardous constituent. Likewise, battery acid is a hazardous waste because sulfuric acid is a (corrosive) hazardous constituent. The same is true about a rifle shell because of the lead, and Sweet and Low sweetener because of the sodium saccharin. These examples of ordinary products being considered hazardous may seem extreme, but Mr. Hendricks explained that it all depends on the dosage of the hazardous constituent.

b. A discussion followed on how operating facilities that produce or handle hazardous constituents or wastes become involved in RCRA, and how RCRA facilities identify SWMU's. A SWMU is a site that is potentially contaminated with a hazardous substance or substances based on past use of the site. He explained how Site 11 is a SWMU because it is on property of a facility which operates under a RCRA permit. If Site 11 were on a private owner's property that was not operating under a RCRA permit, it would not be a SWMU. If there has been confirmation that releases have occurred from a SWMU, a Corrective Action Plan (CAP) is developed to guide remedial efforts. Partial CAP's for Hickson Corporation and Delta Airlines were provided as examples.

c. The topics of cleanup goals and risk assessment were discussed. Mr. Hendricks explained how maximum contaminant levels (MCL's) which have been established for certain compounds or contaminants, are developed based on risk. MCL's can be used as established cleanup goals for those contaminants that have MCL's. However, if a contaminant does not

have an MCL, GAEPD requires cleanup of that contaminant to background concentration. For man-made substances, such as volatile organic compounds (VOC's), the background concentration is zero. Mr. Hendricks explained that GAEPD prepared a draft policy statement to the U. S. Environmental Protection Agency (EPA) requesting use of risk assessment procedures to establish a cleanup standard for contaminants that did not have MCL's. As a result of this request, hundreds of questions were raised and until these questions are addressed, GAEPD is not recognizing risk assessment as a basis for an alternative cleanup standard. Mr. Hendricks warned that if SUBASE wants to perform a risk assessment for the purpose of proposing cleanup standards for contaminants at Site 11 that do not have MCL's, SUBASE would be doing so at the risk that the assessment may not even be considered by GAEPD.

d. The question was asked if GAEPD factors cost into the decision process for selecting a remedial alternative. If it is technically infeasible to remove the VOC's to zero concentrations, and if risk calculations indicate that a contaminant's residual concentration does not pose a significant risk as defined by EPA, will cost be a consideration in removing residual contamination? Mr. Hendricks stated that cost is not factored into the calculation of risk. He further stated that GAEPD does not consider cost as a selection criteria for remedial options.

e. Mr. Hendricks presented a bar-graph, purposely without quantification along the vertical axis, to illustrate how GAEPD feels about site characterization versus remediation. The graph indicated that the most significant portion of a project's effort should be expended on remediation and not investigation.

f. Mr. Hendricks went on to describe how problems at SWMU's are relative in nature. For instance, at the Hickson facility, copper is a constituent with only a secondary MCL. This indicates that the problem is more aesthetic in nature, and not health-based. However, this secondary MCL is still enforceable. At the other end of the spectrum, Delta has nine feet of fuel product floating on top of the groundwater at a site on their facility. At Site 11, there is certainly not this type of problem; we are concerned with the small quantity of toxic contaminants that exist not a large volume of contaminants.

4. LTJG Burbage thanked everyone for participating in the RAB; the large turn out was encouraging. The attendees agreed that day time meetings would be better attended than meetings held in the evening. With this, the next meeting was scheduled for Thursday, January 18, 1996 at 10:00 a.m. in the St. Mary's Library. The RAB will discuss Site 11 status update, possible IM system upgrades and ABB Environmental Services, the Navy's consultant, will provide an update on the SRFI activities. There being no further business, the meeting was adjourned at 11:30 a.m. Those interested joined the RAB members for a tour of the IM system at Site 11.



K. M. BURBAGE, LTJG, CEC, USN  
Navy Co-Chair



RICHARD KING  
Community Co-Chair

**Agenda**  
**Restoration Advisory Board Meeting**  
**Naval Submarine Base, Kings Bay**  
**10 a.m., Thursday, October 26, 1995**

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<b>Welcome</b>	<b>LTJG Burbage</b>
<b>Review Minutes of Last Meeting</b>	<b>LTJG Burbage</b>
<b>Purpose of Today's Meeting</b>	<b>LTJG Burbage</b>
<b>Site 11 Status Update</b>	<b>Sandi Mukherjee</b>
<b>GADNR-EPD View on Cleanup Levels</b>	<b>Mr. Billy Hendricks</b>
<b>Questions and Comments</b>	<b>RAB Members</b>
<b>Discuss Schedule and Agenda for Next Meeting</b>	<b>LTJG Burbage</b>
<b>Site Visit to Site 11</b>	<b>RAB Members/Guests</b>