

**NAS ALAMEDA RESTORATION ADVISORY BOARD  
MEETING SUMMARY**

**NAS Alameda Officer's Club  
NAS Alameda, California**

**Tuesday, October 10, 1995**

**ATTENDEES**

See attached list.

**MEETING SUMMARY**

**I. Introductions/Minutes**

The meeting was called to order at 7:00 p.m.

Ken O'Donoghue opened the meeting and asked whether any RAB members had comments on the September RAB meeting minutes. The following revisions to the September minutes were requested:

- Page 7 - Jim Haas requested that the language be clarified to state that contaminants were identified in the eggs, but below levels considered harmful.
- Page 10 - replace "Ken" with "Kent."
- Page 5 - Karen Hack commented that she raised the question about the extent of use of immunoassay field screening techniques, not Roberta Hough, and requested that the language be revised accordingly.
- Page 3 - Mr. O'Donoghue requested that the statement about a technology workshop on September 9 be revised to state that the Alameda Reuse and Redevelopment Agency (ARRA) will be presenting on September 9 at the Officer's Club.

Mr. O'Donoghue made a motion to approve the September RAB meeting minutes pending the above revisions; RAB members approved Mr. O'Donoghue's motion.

**II. Action Item Updates and Co-Chair Announcements**

Action Item Updates

Heidi Gitterman identified and addressed three outstanding action items from the September RAB meeting.

*Action Item #1: RAB members were requested to complete the community relations plan (CRP) questionnaire by August 15, 1995, and provide their responses to PRC. No additional questionnaires (other than the five already received) were received.*

**CONFIDENTIAL RECORD**

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III. BUDGET UPDATE  
IV. ONE-TIME COMPLIANCE

QUESTIONS MAY BE DIRECTED TO:

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*Action Item #2: Ms. Stirewalt requested RAB training on the concept of addressing multiple chemical effects. The human health risk guidelines and the concept of multiple chemical effects is on the October RAB meeting agenda for discussion.*

*Action Item #3: Roberta Hough requested information on background concentrations at NAS Alameda. This topic is included for discussion on the October RAB meeting agenda.*

## Co-Chair Announcements

LCDR Mike Petouhoff announced that on November 9, the Base Realignment and Closure (BRAC) Cleanup Team (BCT) will be briefing the Audubon Society on the environmental restoration activities underway at NAS Alameda. Representatives from the Audubon Society will then provide their comments on the ecological risk assessment at the December RAB meeting, as part of the ecological assessment presentation planned for that meeting. In response to an earlier question from Bill Smith, LCDR Petouhoff next clarified that Mare Island Naval Shipyard (MINSY) is currently undertaking the scoping phase of the ecological risk assessment (Phase I) while NAS Alameda has progressed to phase II of the ecological risk assessment.

Mr. O'Donoghue announced that Kathy Teller's partner had a baby and passed around a card and photos of the family.

An article regarding National Priorities List (NPL) issues was distributed (attached). LCDR Petouhoff announced that the innovative technology workshop has been postponed; a date has not yet been established.

Ms. Hack requested copies of the portions of the Federal Facilities Site Remediation Agreement (FFSRA) to which all parties agree. Tom Lanphar stated that the issue of whether such portions may be provided to members of the public is currently undergoing internal evaluation and discussion.

## **III. Budget Update**

LCDR Petouhoff provided an overview of the budget process and future funding for NAS Alameda environmental cleanup activities (a copy of his presentation is provided as an attachment). He stated that there are currently 13 appropriations bills pending passage in Congress; the federal fiscal year (FY) 1996 started on October 1, 1995. In the interim, pending enactment of the appropriations bills, the federal government is operating on a "continuing resolution."

LCDR Petouhoff explained that NAS Alameda is a "BRAC III" base; that is, it was part of the 1993 round of base closures. He noted that BRAC I (1988 closures) and BRAC II (1991 closures) accounts encompass fewer bases than the BRAC III account and, therefore, BRAC I and II installations usually receive more funding than BRAC III installations. He added that the BRAC III round encompassed many bases that are all competing for a limited pool of funds.

For FY 96, NAS Alameda's environmental budget is as follows:

- Installation Restoration (IR) activities:
- Transfer related compliance activities:
- subtotal:

- One-time compliance activities: >

He observed that although the IR and transfer related compliance activity funding is about 75 percent less than the FY 95 funding, the total funding (including one-time compliance) is slightly higher than FY 95. LCDR Petouhoff further explained that a pool of "swing" monies in the amount of million are potentially available in FY 96. He explained that "swing" monies will be available if all the projects currently funded in the FY 96 budget are completed and the FY 96 funds are fully spent. In that event, additional projects have been identified ("swing projects") that may be funded with the swing monies.

LCDR Petouhoff next outlined projects already funded, slated for funding in FY 96, possible swing FY 96 projects, and projects expected to be funded in FY 97 (see attachment).

Mr. Smith asked whether funding shortfalls will delay the cleanup schedule and, thus, ultimate transfer of the property. LCDR Petouhoff responded that his best guess is that the final cleanup remedy will cost approximately which would require about per year over a 10-year period. He noted that the community reuse plan is expected to be fully in place by the year 2020; hence, the cleanup process should be in sink with the reuse planning.

Ms. Stirewalt asked whether funding for FY 96 will be held up until Congress passes a budget. LCDR Petouhoff responded that the continuing resolution will fund current projects in the interim, until a budget is passed. Additionally, he noted that he has tapped another funding source to obtain funding for urgent needs such as removal of the storm water sediments prior to the start of the rainy season.

Ms. Hack asked that if NAS Alameda initially requested and only received what projects will not get funded. LCDR Petouhoff responded that probably less follow-on work at sites will be conducted. For example, he cited underground storage tank removals: following the removals, the FY 96 funds will be provided for investigation and evaluation of the remaining soils; however, any actions that need to be taken to address the soils will be deferred to FY 97.

Ms. Hack next asked about the status of the polychlorinated byphenols (PCB) transformer and asbestos surveys. LCDR Petouhoff responded that the basewide asbestos survey has been completed and abatement of buildings with an identified reuse is currently funded. However, remaining abatement work will remain "on-deck," which means it is next in line to be funded. Similarly, LCDR Petouhoff explained the PCB transformer survey has been completed and some abatement needs have been identified; the PCB abatement is also "on-deck."

A member of the public asked how much actual cleanup completion is planned. LCDR Petouhoff explained that often the Navy cannot be certain that a project is fully completed until follow-up studies are conducted to verify that the site is clean and the remedial action has been completed. Another member of the public commented that the California Resources Agency Office of Technology Transfer can provide matching funds for selected cleanup technologies. LCDR Petouhoff stated that he will investigate the possibility of obtaining such matching funds.

A public member asked how much of the for IR activities is allocated to ecological work. LCDR Petouhoff responded that the includes ecological work. He noted that sediment samples were collected and the Navy is now doing some follow-up analysis which is funded.

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Whether the Navy will need to collect additional sediment samples is still being evaluated. Should additional sampling be necessary, that work would be funded with the "swing" funds.

## IV. One-Time Compliance

LCDR Petouhoff introduced the concept of one-time compliance. He explained that closure of permitted hazardous waste facilities within NAS Alameda must meet relevant environmental regulations to ensure the facility is left in a clean condition. For example, removal of hazardous wastes, such as paint lockers or sludge from sumps, must be conducted. He explained that the Naval Aviation Depot (NADEP) is by far the largest industrial tenant within NAS Alameda and NADEP is responsible for cleaning up its facilities prior to closure. Similarly, the Public Works Center (PWC) manages the installation utilities and is responsible for any associated cleanup needs. Naval Air Station (NAS) is responsible for all remaining cleanup needs.

Captain Heilman, the Commanding Officer for NADEP Alameda, provided an overview of NADEP's one-time compliance activities. He stated that to date, NADEP has been quite successful in obtaining funds to address its one-time compliance needs. NADEP has approximately 2.5 million square feet of buildings; some are modern and some date back to World War II. Costs for completing one-time compliance within NAS Alameda is estimated to be more than . . . . To complete this task, Captain Heilman explained that NADEP has retrained over 300 employees in hazardous materials management and disposal. NADEP's primary objective is to clean up facilities for early reuse. He stated that, generally, facilities are being cleaned up for industrial use similar to their current use. However, he emphasized that NADEP is doing more than just enough to "squeak by;" he pointed to Hanger 11 and Building 400A as examples of an excellent cleanup job completed in order to attract new business. He added that because of NADEP's commitment, the local reuse authority has greater flexibility in determining the future use of facilities within the installation. Wherever possible, NADEP tries to clean up a facility "one step above" the current industrial use.

He explained that in the process of cleaning and closing a facility, any remaining hazardous materials are stored no longer than 90 days on site. Some of the methods used for one-time compliance include vacuuming, power washing, scrubbing, mopping, and sweeping; all of these are labor-intensive and therefore, the primary costs are employee salaries. Once cleanup of an area is completed, the area is re-sampled to verify that the area is clean. Captain Heilman projected that cleanup will be completed at 71 buildings encompassing 2.3 million square feet (the remaining .2 million square feet of buildings have been demolished). Hazardous materials have already been removed from 86 of the 165 shops, and 20 buildings or portions of buildings have been thoroughly cleaned.

A public member asked what guidelines are included in future leases for storage and disposal of lead acid batteries. LCDR Petouhoff explained that every lease requires a "finding of suitability to lease" (FOSL); the FOSL will contain information on the environmental condition of the leased property as well as restrictions on use of the property. Therefore, the FOSL will contain requirements to ensure that lead acid batteries will be properly handled according to applicable regulations.

Mr. Smith stated that he strongly supports efforts to retrain workers; however, he cautioned NADEP to ensure that appropriate workers are used for the cleanup job and that those workers are adequately trained. He cited Department of Energy Hanford nuclear weapons production facility as experiencing significant problems due to inadequate worker training. Mr. Smith followed with a question about NADEP's training program. Captain Heilman explained that workers are first screened for their

technical skills. Paul Pentony, NADEP's Environmental Engineering Division Director, added that the workers receive the 40-hour Occupational Safety and Health Administration (OSHA) training, emergency response training, respirator training, and other types of related training. He noted that everyone is learning on the job to a certain degree but most of the workers have been working in the hazardous material business and, therefore, have some familiarity with hazardous material management and disposal. Captain Heilman reiterated that NADEP is committed to the safety of its workers and takes every precaution to ensure they are well-equipped to handle any situation.

Ms. Stirewalt asked a series of questions. She first asked how any seepage beneath the concrete floors will be addressed. Mr. Pentony explained that there is crawl space beneath the buildings and the saturated dirt in the crawl space is being removed.

She next asked whether documentation of work completed by NADEP can be placed in the RAB library. Captain Heilman and LCDR Petouhoff agreed to place documentation in the RAB library; however, LCDR Petouhoff noted that review of NADEP compliance activities is outside of the scope of RAB review.

Ms. Stirewalt asked what types of heavy metals were identified in the wipe samples. Mr. Pentony responded that the metals include zinc, lead, chromium, and cadmium; however, the specific metal found will depend on the type of operation at the site. She next asked whether the demolished buildings had been sampled prior to being razed. Mr. Pentony stated that the buildings were sampled, and some even cleaned up, before the decision was made to demolish them.

Ms. Stirewalt asked whether regulatory agencies are overseeing NADEP's work. Tom Lanphar explained that the Department of Toxic Substances Control (DTSC) inspects permitted buildings. Mr. Pentony added that sampling is conducted before and after the cleanup and the condition of the facility structure is documented and provided to the caretaker; the caretaker will then provide the documentation to the future user. Mr. Lanphar further explained that the environmental baseline survey (EBS) also documents the environmental condition of the ground and area around the facility to assess whether any contaminants have been released to the soil.

Ms. Stirewalt asked how asbestos residuals in the steam lines are handled. LCDR Petouhoff responded that asbestos abatement is part of the transfer related compliance activities; any necessary abatement has been funded (for example, asbestos that is friable or exposed).

## **V. Risk Assessment**

Dr. Richard DeGrandchamp provided an overview of the purpose and process of conducting a human health risk assessment at NAS Alameda (provided as an attachment). He stated that development of the human health risk assessment plan at NAS Alameda is still in the very early stages; data are now being evaluated to determine whether they are usable in the risk assessment. Dr. DeGrandchamp explained that a human health risk assessment is required by federal law (the Comprehensive Environmental Response, Compensation, and Liability Act) and regulation (the National Contingency Plan); California has supplementary guidance that the Navy also follows. He stated that protection of human health is the first factor considered in selecting a cleanup remedy. He explained that a human health risk assessment follows protocol developed by the National Academy of Sciences and is based upon very conservative assumptions. For example, a carcinogenic risk estimate equals the probability of developing cancer due to chemical exposure. He explained that based on national background

levels of cancer in the U.S. the probability of developing cancer is 1 in 3; 33 out of 100 would probably develop a tumor without ever visiting NAS Alameda. He explained that the additional acceptable risk established by the U.S. Environmental Protection Agency (EPA) is one in one million; that is one person developing a tumor out of a population of one million. The risk assessment at NAS Alameda will attempt to predict the additional risk of cancer caused by exposure to contaminants at the site.

Dr. DeGrandchamp next outlined the four phases of the human health risk assessment: (1) identify the chemicals of concern (COC), (2) conduct an exposure assessment of how people are potentially exposed to COCs currently and in the future, (3) conduct a toxicity assessment of how the COCs affect the human body, and (4) fully characterize the risk to human health at the site. Numerical results will be presented at completion of the assessment, which the Navy will interpret and explain.

Phase 1: During this phase, COCs will be identified and certain chemicals will be screened out; for example, naturally occurring concentrations of trace elements such as copper and aluminum are not considered "contaminants" and so are not addressed in the risk assessment. Determination of the COCs will be a collaborative effort between the Navy, EPA, and DTSC.

Phase 2: During the second phase, potential exposure routes will be characterized; for example, occupational, residential, and agricultural exposure through the skin, air, or drinking water will be estimated. All available data (gathered from the IR, BRAC, and EBS processes) will be used to conduct the exposure assessment.

Phase 3: The third phase will involve a toxicity assessment. Toxicity is a measure of the potentially harmful effects of COCs on human health. Dr. DeGrandchamp stated that a large database has been developed by the regulatory agencies that includes "toxicity values" for each COC. Many safety factors are built into the values such as grossly overestimating probable exposure.

Phase 4: The final phase involves analyzing all the data and fully characterizing the potential existing and future risks to human health at the site.

Dr. DeGrandchamp emphasized that in reviewing the risk assessment, the most important factors to bear in mind are the assumptions upon which the assessment is based. For example, the numbers will be calculated based on the assumption that a person is born at the site, and never leaves the site for 30 years; that individual would be assumed to be consistently exposed to all COCs at the site through the identified exposure pathways over a 30-year period.

Mr. Smith pointed out the environmental community perceives risk assessments as more trouble than they are worth and opposes use of them at all. He added that some environmental representatives may feel that risk assessments are acceptable for setting reuse priorities but not for setting cleanup standards. He then questioned how exposure routes through ingestion of fish will be addressed in the human health risk assessment. Dr. DeGrandchamp responded that risk management should not affect or skew risk assessment which is used to determine risks. Risk assessment information can then be used to help determine what risk management is needed. The Navy and regulators will use the risk assessment data to determine what level of risk is considered acceptable, in light of possible future use for the site.

Mr. Smith added that risk assessments only focus on a particular site and the current and past operations at that site; he believes that the risk assessment should consider whether contamination found in nearby fish populations can be traced back to contamination at that site. Dr. June Mire (PRC) responded that the Navy, its contractors, and the regulators have had a lot of discussion on this issue with respect to all Bay area installations. She stated that the Office of Environmental Health Hazard Assessment (OEHHA) is in the process of evaluating the fish tissue data collected in the San Francisco Bay to determine if they can trace contaminants found in the fish back to a particular location.

Mr. Okey stated that he supports separating the risk assessment from risk management decision-making. However, he stated his concern that the risk assessment should be developed by formulating "a model of how we think the system works based on the most reasonable hypotheses and then try to disprove those hypotheses." He asserted that the Navy is not approaching the risk assessment in this manner. LCDR Petouhoff noted that the issue of fish contamination is an important issue and should be evaluated on a collaborative and regional basis taking into account a wide range of potential sources of contamination.

Mr. Okey noted that he has received funding to conduct a foodweb contaminant transport study; the study will try to determine what proportion of contamination comes from each of the military bases situated on San Francisco Bay (for example, NAS Alameda, Hunters Point Annex, Mare Island Naval Shipyard, and Treasure Island Naval Station), as well as other sources, and place a numerical value on each of the sources. He does not believe that such a study will be very expensive.

Mr. O'Donoghue summed up the discussion by stating that the issue of fish contamination goes beyond NAS Alameda and should involve joint efforts throughout the Bay area; NAS Alameda does not have the funding to address the entire issue.

Dr. Sophia Serda (EPA) expressed concern that the potential affect on people eating the fish should be assessed in the human health risk assessment. LCDR Petouhoff replied that this is a concern; however, the Navy is still very early in the process of preparing the human health risk assessment and the overall approach to the assessment is still being formulated.

Ms. Hack inquired how the Navy will establish background levels. Dr. DeGrandchamp explained that the Navy proposed a plan to the regulators and the proposed plan is still under discussion.

Dr. Serda commented that the site characterization data upon which the risk assessment is based is critical and the risk assessor should be very familiar with that data. Dr. DeGrandchamp responded that risk assessors do rely on the data collected during the site characterization process. He added that many conservative assumptions are built into the site characterization data collection and analysis process, thereby providing further safeguards in the process.

Mr. Okey asked whether the risk assessors are evaluating risk based on exposure to one chemical or a whole suite of chemicals. Dr. DeGrandchamp responded that the cumulative risk is being evaluated but that synergistic effects are not being directly addressed. He reiterated that the risk assessment will be based on the assumption that a person lives at the site for 30 consecutive years and is potentially exposed to all chemicals present at the site.

Ms. Stirewalt asked whether funding cutbacks will cause the aquatic ecological risk assessment to be deferred. Dr. Mire explained that there has been no change in planning for the ecological assessment; the ecological assessment is currently funded, including sediment sampling around Dock 5. Follow-on work in the aquatic areas of NAS Alameda will in part be determined by the regional screening criteria being developed by the Navy and regulatory agencies.

Mr. Smith made a final note that fish contamination could potentially have a detrimental effect on property reuse by possibly restricting fishing and park use along the installation's coastline.

## **VI. Action Items and Closing Remarks**

In closing, Mr. Smith requested that the Navy and regulators establish a process for evaluating hazards posed by ingestion of contaminated fish. Mr. Lanphar explained that the EPA and the State of California are already looking at this issue. Mr. O'Donoghue added that the issue will probably not be resolved by the next RAB meeting.

Ms. Hack asked that the Navy present to the RAB a methodology for establishing background levels and explain how the RAB will be involved in establishing those levels.

The meeting adjourned at 9:30 p.m.

**The next meeting will be held on Tuesday, November 7, 1995, at 7:00 p.m., at the Officer's Club, NAS Alameda.**

***Naval Air Station, Alameda  
Restoration Advisory Board  
Agenda  
October 10, 1995  
7:00 P.M.***

<u>Time</u>	<u>Subject</u>	<u>Presenter</u>
7:00-7:05	Approval of September 5, 1995 minutes	RAB
7:05-7:15	Co-Chair Announcements	Co-Chairs
7:15-7:30	Budget Update	LCDR Petouhoff
	We've discussed projections, here's actually what's included for Alameda in the budget under consideration right now.	
7:30-8:00	One-time compliance: Building Closure	CAPT Heilman CO NADEP
	This is the portion of cleanup associated with closing the facilities. It is a substantial and integrated effort between NAS/NADEP/and the Navy Public Works Center. CAPT Heilman, the Commanding Officer of NADEP, which has the largest number of industrial facilities, will give us an update on NADEP's program which involves over 100 base employees in the cleanup effort.	
8:00-8:06	Break	Stretch and chat
8:06-8:46	Risk Assessment	Richard DeGrandchamp
	We've had our "Decisions and Documents" workshop that showed us where the Risk Assessment fits into the Remedial Investigation. We've also had our "Risk Assessments" workshop. Now we'll focus in on the Human Health Risk Assessment for NAS Alameda.	
8:46-8:56	Focus Group Updates	Focus Groups
8:56-9:01	Action Items Discussion	Co-Chairs
9:01	Closing	

**ATTACHMENT**

**ATTENDANCE LIST**

**RESTORATION ADVISORY BOARD  
MEETING SUMMARY - OCTOBER 10, 1995**

**THE ABOVE IDENTIFIED ATTACHMENT IS NOT  
AVAILABLE.**

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AS A PLACEHOLDER AND WILL BE REPLACED  
SHOULD THE MISSING ITEM BE LOCATED.**

**QUESTIONS MAY BE DIRECTED TO:**

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