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RESTORATION ADVISORY BOARD MEETING SLIDES 17 MARCH 1998 NAS WHITING
FIELD FL
3/17/1998
RESTORATION ADVISORY BOARD

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NAS Whiting Field RAB Meeting March 17, 1998

Naval Air Station (NAS) Whiting Field

Restoration Advisory Board (RAB) Meeting

March 17, 1998

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Welcome - Logan Fink

- Tonight's agenda
 - Introduction to risk assessment - Steve Sorgen
 - Arsenic at capped landfill sites - Gerry Walker
 - Site 18 remedial investigation (RI) - Terry Hansen
 - Fieldwork update - Bryn Howze
 - RAB administration and discussion

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Introduction to Risk Assessment Steve Sorgen

Navy Environmental Health Center

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March 17, 1998**

**Arsenic at Capped Landfill Sites
Gerry Walker**

ABB Environmental Services, Inc.

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Arsenic at Capped Landfill Sites

- Sites: 1, 2, 9, 10, 11, 13, 14, 15, and 16
- Findings
 - ◆ arsenic in soil slightly above Florida Department of Environmental Protection (FDEP) and U.S. Environmental Protection Agency (USEPA) limits for industrial sites
- Challenge
 - ◆ ensure protection under current and future land uses

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CADD Figure

- placeholder

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Representative Capped Landfill Sites

Site 1
Northwest Disposal Area



Site 2
Northwest Open
Disposal Area

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What We Know About Landfill Caps at NAS Whiting Field

- Facility lithology is interbedded sand, silt, and clay
- Landfill cap material came from on-site borrow pits (0 to 15 feet deep)
- Cap material includes surface and subsurface soil

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What We Know About Arsenic

- Mobility
 - acidic rain water trickles down and leaches some of the arsenic from surface to subsurface soil
 - arsenic readily binds with high clay content in subsurface soil

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What We Know About Arsenic (cont'd)

■ Applicable regulations

	Residential	Industrial
FDEP Soil Cleanup Goals	0.6	3.7
USEPA Region III RBC	0.43 C	3.8 C
	23.0 N	610.0 N

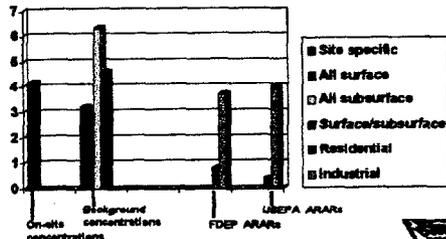
Notes:
 C = carcinogen
 N = noncarcinogen
 RBC = Risk-Based Concentration
 values are in ppm



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What We Know About Arsenic (cont'd)

■ Facility-specific levels and regulatory guidance



Note:
 ARAR = applicable or relevant and appropriate requirement



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Arsenic Evaluation Summary

- On-site arsenic concentrations are likely to be naturally occurring
- It is unlikely that the on-site arsenic concentrations are the result of disposal activities
- Actions to clean up naturally occurring chemicals are not appropriate



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Navy's Recommendation

- Use combined background arsenic level for area surface and subsurface soil to evaluate potential response actions



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Next Steps

- Evaluation of the recommendation by FDEP and USEPA
- Preparation of focused feasibility studies on capped landfill sites
- Solicitate public comment



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Questions and Comments





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Site 18 Remedial Investigation Terry Hansen

ABB Environmental Services, Inc.

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Site 18 Background

- Crash Crew Training Area
 - 5-acre site near north air field
 - operational from 1951 to 1991
 - fuel was ignited in burn pits to simulate aircraft accidents

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What Was Released?

- Jet propellant 5 jet fuel
- Foam fire extinguishing agent

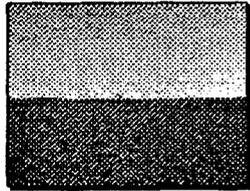


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Current View of Site 18



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Completed Fieldwork

- Surface and subsurface soil sampling
- Monitoring well installation
- Groundwater sampling
- Hydrogeologic investigations



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Fieldwork Findings

- Hydrogeologic conditions
 - direction of groundwater flow is south-southwest
 - groundwater presumably discharges into Clear Creek (approximately one-half mile southwest)
 - other hydrogeologic data (depth to groundwater, soil types, etc.)

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Fieldwork Findings (continued)

- Soil sampling results
 - two semivolatile organic compounds and several metals (including arsenic) exceeded FDEP or USEPA screening criteria
- Groundwater sampling results
 - detected chemicals did not exceed FDEP or USEPA screening criteria

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Risk Assessment Conclusions

- Site contaminants unlikely to cause unacceptable cancer risks under current or expected future site uses (with the exception of arsenic)

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Risk Assessment Conclusions (cont'd)

- Risk estimates for arsenic were slightly above FDEP targets
 - based on soil ingestion by future site residents
 - site specific background arsenic levels exceed Florida soil cleanup goals
 - uncertain if arsenic concentrations are related to past site activities

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Risk Assessment Conclusions (cont'd)

- Ecological
 - potential risks to small mammals and birds from contaminant ingestion
 - limited risks due to predators that would reduce foraging

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RI Recommendations

- Conduct focused feasibility study
 - address potential risks associated with arsenic in soil
 - establish a cleanup goal that is protective of human health
 - identify and evaluate ways to meet that goal
- Groundwater at Site 18 will be studied in detail in a basewide groundwater investigation

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Fieldwork Update Bryn Howze

Tetra Tech NUS

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RAB Administration and Discussion

- Location and schedule for next meeting
- Agenda topics and speakers
- Earth Day activities

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