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NAS CECIL FIELD
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LETTER AND COMMENTS FROM U S EPA REGION IV REGARDING HUMAN HEALTH RISK
ASSESSMENT METHODOLOGY AND TECHNICAL MEMORANDUM NAS CECIL FIELD FL
11/13/1992
U S EPA REGION IV



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

rec. 11/18/92

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

NOV 13 1992

4WMD-FFB

Mr. Cliff Casey
Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
Charleston, South Carolina 29411-0068

Re: Risk review comments on human health aspects
Naval Air Station Cecil Field, Florida.

The U.S. environmental Protection Agency (EPA), Region IV, has received and reviewed the Human Health Risk Assessment Methodology Technical Memorandum for Naval Air Station Cecil Field. EPA is unable to determine from this document if the resulting Baseline Risk Assessment (BRA) will be valid and defensible. This Technical Memorandum is not a usual submission in the risk assessment process and the scope of work is unclear to define. However, the comments presented discuss general risk assessment principals and assumptions.

Comments

The Baseline Risk Assessment (BRA) should include both current and future risks posed by a site. Per RAGS (page 1-11) baseline risks are risks that might exist if no remediation or institutional controls were applied to a site. Therefore, the No Further Action (NFA) assessments should be the reference base for the BRA. The baseline risk assessment for each site at this facility should include future residential (adult and child) scenarios. Also, since the standard industrial scenario (250 days/year exposure) is not included as a current scenario it should be included as a future scenario to show the risks to workers if a change in land use resulted in workers spending all of their work day at the site.

Comparison of sampling data to Screening Criteria Values (SCVs) is not consistent with "Risk Assessment Guidance for Superfund: Volume 1 - Human Health Evaluation Manual (Part A)" (RAGS) and the applicability of such a comparison should be reconsidered. As presented in this document SCVs consider exposures via ingestion only. Dermal and inhalation exposures could add significantly to the total risks. Eliminating contaminants from the contaminants of concern list based on standard exposure scenarios (ingestion only) at a 1×10^{-6} risk level could potentially eliminate contaminants with total risks exceeding 1×10^{-6} .

Sediments should be addressed in a human health risk assessment if they are available for direct contact exposures. Sediments in an intermittent stream are available for direct exposures (ingestion, inhalation, and dermal) when there is no water in the stream. Exposures to sediments under water could occur through ingestion or dermal routes.

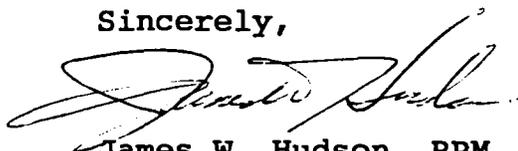
Pesticides should not be considered as background constituents for the purposes of the baseline risk assessment; the baseline risk assessment should include all risks posed by a site regardless of source. It would be appropriate to discuss the uncertainties related to background pesticides in the uncertainties section.

The equation presented for the 95% UCL is appropriate for data which has been log transformed. It would be inappropriate to use the equation presented if the data had not been log transformed. The sentence following the equation in Section 3.1.1 should be deleted from the text.

The conceptual models shown in Figures 2-7 through 2-9 are incomplete. Exposures to sediments should be included in these figures. Figure 2-7 should include inhalation exposure to contaminated surface soils via volatile emissions and dust. Figure 2-9 should include residential exposures. It is unclear why site workers would be exposed to contaminant emissions from groundwater at OU 7 and not at OUs 1 and 2.

If you have any questions regarding the above comments, please call me at (404) 347-3016.

Sincerely,



James W. Hudson, RPM
Department Of Defense Remedial Section
Federal Facilities Branch

cc: Eric Nuzie, FDER
John Dingwall, NAS Cecil Field