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LETTER REGARDING REGULATOR REVIEW AND COMMENTS TO THE REMEDIAL  
INVESTIGATION REPORT FOR OPERABLE UNIT 2 (OU 2) NTC ORLANDO FL  
7/3/2002  
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



# Department of Environmental Protection

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00497

Jeb Bush  
Governor

Twin Towers Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

July 3, 2002

Commanding Officer  
Mrs. Barbara Nwokike, Code 5566  
SOUTHDIVNAVFACENGCOM  
Post Office Box 190010  
North Charleston, SC 29419-9010

RE: Response to Comments on the Remedial Investigation Report  
for Operable Unit 2, Orlando Naval Training Center, Orlando,  
Florida.

Dear Mrs. Nwokike:

The Department has completed its review of the Response to  
Comments letter on the Remedial Investigation Report for Operable  
Unit 2, Orlando Naval Training Center, dated May 6, 2002  
(received May 10, 2002), prepared and submitted by Tetra Tech  
NUS, Inc. The responses to the Department's comments on the  
human health portion of the Remedial Investigation Report are  
satisfactory. With respect to the responses on the ecological  
risk assessment portion of the report, the Department's risk  
assessors with the University of Florida's Center for  
Environmental & Human Toxicology have some comments that should  
be considered. I have attached their comments to this letter.

If you have any concerns regarding this letter, please  
contact me at (850) 921-9991.

Sincerely,

David P. Grabka, P.G.  
Remedial Project Manager

CC: Greg Fraley, USEPA, Region 4  
Bill Bostwick, FDEP Central District  
Steve McCoy, TetraTech NUS, Oak Ridge, TN  
Steve Tsangaris, CH2M Hill, Tampa  
Mark Salvetti, Harding ESE, Wakefield, MA

TJB JJC <sup>for</sup> ESN

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



# UNIVERSITY OF FLORIDA

Center for Environmental & Human Toxicology

P.O. Box 110885  
Gainesville, Florida 32611-0885  
Tel.: (352) 392-4700, ext. 5500  
Fax: (352) 392-4707

June 13, 2002

Ligia Mora-Applegate  
Bureau of Waste Cleanup  
Florida Department of Environmental Protection  
Room 471A, Twin Towers Office Building  
2600 Blair Stone Rd.  
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

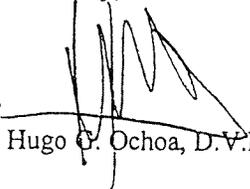
In a letter to you dated June 28, 2001, we provided comments on the March 2001 *Remedial Investigation Report for Operable Unit 2 McCoy Annex Landfill, Naval Training Center, Orlando Florida*. Tetra Tech NUS (TTN) has responded to these comments. All of the TTN responses to comments on the human health risk assessment portion of the RI report are satisfactory. With respect to the ecological risk assessment, we have the following comments on the responses:

1. In our first comment, we pointed out that ecological hazards posed by co-occurring contaminants with the same toxicity mechanism should be added. We specifically mentioned DDT and its breakdown products, alpha and gamma chlordane, and endrin, endrin aldehyde and endrin ketone. In response, TTN agreed to make some changes in the text regarding alpha and gamma-chlordane, but stated "Regarding the food chain modeling, whether or not the chemicals have the same target organ or mechanism of toxicity is debatable. For example, chronic effects to wildlife from pesticides are typically caused by their actions as endocrine disrupters. These actions would vary according to specific molecular configurations and therefore would not be predictable as a group." We agree with this statement from a theoretical perspective. However, the mechanism(s) by which pesticides and their metabolites produce adverse health effects in wildlife are not well characterized. For now, as a practical matter, typical TRVs (including the ones chosen by TTN), are the same for the parent pesticide and related forms, implying the same mechanism of action and that their effects therefore should be additive.
2. With respect to the soil ingestion value for the shrew, we would like to clarify that following:
  - a) The 10% value proposed by us is expressed on a dry weight basis for the food ingestion value.
  - b) The value proposed in the draft Eco-SSL document is not particularly strong, as it was based on gut content data and only two shrews were evaluated.
  - c) TTN states that for this assessment the soil ingestion assumption is inconsequential because "food chain modeling BAFs were set equal to one. This means that contaminant concentrations in food items were the same as contaminant concentrations in soil. Therefore, changing the portion of diet that is soil would not change any doses or hazard quotients." Actually, although soil consumption is estimated based on food intake, it is not considered to be part of food intake. Instead, soil intake is added to food intake to estimate total intake by ingestion. The reason for this is because most food ingestion rates are calculated based on the energy demands of animals, or based on food consumption required to maintain a neutral energy balance, as in the case of the value for the short-tailed shrew used. For mammals and

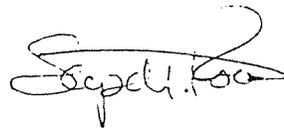
birds, soil does not have a caloric value, and therefore is not considered to be part of the food consumption value.

Thanks for the opportunity to review the TTN responses to comments for this site. We look forward to being of further assistance, if needed.

Sincerely,



Hugo G. Ochoa, D.V.M., Ph.D.



Stephen M. Roberts, Ph.D.