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 NWS EARLE  
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*12-3-91*

**THROUGH:** Kate Joyce, Section Chief *KMJ*  
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**SUBJECT:** Review of Draft Workplan for Human Health Risk  
 Assessment: Naval Weapons Station Earle, Colts  
 Neck, NJ

Background

EES has requested that ETRA review a draft Workplan for Human Health Risk Assessment conducted for the Naval Weapons Station Earle, Colts Neck, NJ and prepared by Roy F. Weston, Inc. (November, 1991).

Reviewer's Comments

1. Chemical Characterization

Regardless of the distribution of the various contaminants (normal or log normal), the arithmetic mean should be used to determine the 95th upper confidence limit on the concentration variable. USEPA purposely chose the arithmetic mean because it is conservative and gives equal weight to all points at the site.

2. Chemical Identification

If any chemical is eliminated from review based on data evaluation steps, frequency of detection, essential nutrients, background, etc., the chemical and reason for elimination should be noted in the risk assessment. Note

that a frequency of detection should not exceed 5%. Also, RCRA Corrective Action Levels and NJDEPE Preliminary Cleanup Standards are unacceptable for screening chemicals of concern and should not be presented in the risk assessment.

### 3. Appropriate Exposure Scenarios

Residential exposure scenarios should be assessed whenever there are or may be occupied residences on or adjacent to the site. As this is the case at NWS Earle, a residential exposure scenario should be included under current land use. If there is appropriate justification to preclude residential exposure at present, than this pathway should be assessed under potential future land use. Further justification is needed to disregard groundwater as a current and potential future pathway.

### 4. Appropriate Exposure Parameters

USEPA has developed standardized default exposure factors for use in risk assessment. Unless there are site specific data, the default factors should be used. The risk assessor should take note of the differences in the exposure frequency (EF) parameters used in this report and those recommended as defaults.

### 5. Risk Characterization and Uncertainty

While the inherent uncertainty of risk assessment process is important, the risk assessor should also include key site-related variables or assumptions that may help the decisionmaker interpret the risk characterization.