

RE: U.S. NASA PLUM BROOK
ERIE COUNTY
OHIO I.D#: 322-0552
COMMENTS FOR DRAFT TNT AREAS A
AND C REMEDIAL INVESTIGATION
VOLUME II - HUMAN HEALTH RISK
VOLUME III - ECOLOGICAL RISK

August 31, 2001

Ms. Linda S. Ingram
Department of the Army
Nashville District, Corps of Engineers
P.O. Box 1070
Nashville, Tennessee 37202-1070

Dear Ms. Ingram;

The Ohio Environmental Protection Agency (EPA), Division of Emergency and Remedial Response (DERR), has reviewed the "Draft TNT Areas A and C Remedial Investigation Volume II Human Health Risk Assessment and Volume III Ecological Risk Assessment" for the Former Plum Brook Ordnance Works, Sandusky, Ohio. These documents were submitted to the Ohio EPA by the International Technology Corporation (IT) on behalf of the Corps of Engineers, on July 11, 2001, for review and comments. The Ohio EPA, DERR is providing the following comments concerning the Risk Assessments.

General Comment

The report was well written and clearly described the methods used in the evaluation of potential risks to human health and ecological receptors. Ohio EPA was pleased to see that comments and issues raised and ultimately resolved during previous document reviews (ie. TNT Area B, Redwater Ponds) were carried over and applied in this risk assessment report. This resulted in a faster review, reduced the number of comments, and promoted overall consistency between documents.

Human Health Risk Assessment Specific Comments:

1. **Executive Summary, page ES-3, third paragraph, last sentence:** This sentence states "The PAHs were attributed to erosion and runoff from a nearby highway, and sediment from Plum Brook was not evaluated in the risk assessment." What criteria were used to make the determination that detected PAHs were attributed to erosion and runoff from a nearby highway?
2. **Executive Summary, page ES-3, fifth paragraph and page ES-4, fourth paragraph:** The rationale for re-combining the data to form exposure units based on the former building locations may not be apparent and clear. The rationale for doing this may need to be discussed in more detail so that the reader has a better and more clear understanding of why this approach was taken. The explanation that is provided in *Section 2.1.1 Sorting*

the Analytical Data that is found in the second paragraph on page 2-4 is good. One suggestion is to add a reference to the executive summary that directs the reader to this section of the report for a more detailed explanation of this approach.

Ecological Risk Assessment Specific Comments:

3. **Section 2.2.1 Data Organization, page 2-9 and Section 3.1 Exposure Analysis, Soil Exposure Pathway, page 3-8:** The rationale for selecting the soil interval of 0-6 feet should be included in this discussion. The reasoning for this interval is not apparent in the report at this stage. This information would help the reader understand why this interval was selected.
4. **Section 2.2.6 Summary of COPEC Selection, page 2-16:** Explain how samples with elevated detection limits were handled in the ecological risk assessment when developing exposure point concentration for ecological receptors.
5. **Section 7.0 Conclusions and Recommendations, page 7-1, last sentence in first paragraph:** The acceptable risk level (ARL) for ecological risk is defined as the following:
 - i) Environmental Hazard Quotient (EHQ), or environmental hazard index (EHI) where appropriate of less than or equal to one (rounded to one significant figure); and,
 - ii) No other observed significant adverse effects on the health or viability of the local individuals or populations of species are identified.

If both criteria (i and ii above) are not exceeded, then the site is highly unlikely to present significant risks to endpoint species and a recommendation for no further ecological investigations should be made. If any criterion (i or ii above) is exceeded, then the site could present significant risks to endpoint species and a recommendation to move to the next step should be made. In this instance, the analyses should identify:

- (1) the COPECs that clearly pose risks below the ARL and thus require no further action,
- (2) the COPECs that currently constitute risks above the ARL and thus should be subject to remediation,
- (3) the COPECs that may or may not pose a significant ecological risk but, because of elevated uncertainty, should also be subject to further investigation, monitoring, and/or remediation.

COPECs in (2) or (3) above are termed ecological contaminants of concern (ECOCs) and are the focus of either further investigations or remedial actions.

Therefore, based on the criteria stated above and on the results of risk evaluation based on NOAEL-based hazard index results for aquatic receptors, Ohio EPA does believe a recommendation for no further action on impacted sediment and surface water can be made

based only on this information as presented in this report.

Please review these comments and incorporate them in the revised version of this document. If you should have any questions or concerns regarding this correspondence please contact me at (419) 373-3147 or Laurie Moore at (937) 285-6457.

Sincerely,

Ron Nabors
Site Coordinator
Division of Emergency and Remedial Response

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pc: DERR file