



June 30, 2000

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U.S. Army Engineer District, Nashville  
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**Revised Soil Sampling Procedures for the Remedial Investigations at  
TNT Area A and TNT Area C, Plum Brook Ordnance Works, Sandusky, Ohio;  
Contract Number DACA62-00-D-0002; IT P/N 807112 and 807111**

Dear Mrs. Ingram:

This letter is forwarded in accordance with the requirements of delivery orders 0003 and 0004 on Contract Number DACA62-00-D-0002 to advise you of proposed changes to the soil sampling strategies presented in the draft SSAP for the Remedial Investigations and Feasibility Studies – TNT Area A and TNT Area C (IT, May 2000). These changes have resulted in a one-week delay to the field sampling program, and soil sampling using the revised sampling strategies are scheduled to commence on July 17, 2000.

As we have discussed, site clearing activities conducted during the week of June 19th, 2000 revealed that numerous historic building foundations in TNT Area A and TNT Area C were covered by as much as three feet of soil. While the origin of this soil “cover” is unknown, it may be the result of demolition of soil filled blast barricades and subsequent spreading of the soil at the various sites. Historical figures show blast barricades at the Bi-Tri House, the Fortifier House, and the Wash House. Alternatively, the soil could simply represent fill material placed over the foundations after the production facilities were razed.

An initial site survey was conducted during the week of June 27, 2000 to locate the historic building foundations. Coordinates for the historic foundations were developed by placing the historical site maps prepared by Dames & Moore over the USACE/IT base map and adjusting this overlay to line up with known site features. Two building foundations were found to still be

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intact at TNT Area C; an Acid and Fume Recovery Building (Building 689) and the Settling Basins (Building 657). The coordinates of these two buildings were located in the field to determine the accuracy of historical base maps. Based on the initial survey, the Acid and Fume Recovery Building and the Settling Basins were off by approximately 17 ft and 45 ft, respectively, from the coordinates derived from the historical base map. One building foundation (Mono House Building 111) was found at TNT Area A. The located coordinates for Building 111 was off by approximately 14 ft.

The present ground surface at most of the former building foundations in both TNT Area A and TNT Area C is not interpreted to represent the original ground surface during the operational period of PBOW. Based on the initial site walkover, as much as 36 inches of soil was present above the top of the suspected building locations (slabs). As the soil covering the foundations and surrounding areas of the sites is most likely not contaminated with nitroaromatics, sampling of the surface (0 to 1 foot) soils at TNT Areas A and C is not expected to provide representative data. Since the exact building locations could not be accurately located as outlined above, it is suggested that the building foundations instead be located using metal detectors (assuming the foundations are present and contain rebar) and trenching techniques.

Specifics of the revised sampling strategy are outlined below for your review and consideration:

- Dig permits will be obtained from NASA Plum Brook Station for all proposed excavations at TNT Areas A and C.
- The applicability / usefulness of metal detectors in determining the approximate locations of former building foundations will be evaluated during the week of July 10, 2000; initial attempts on June 30, 2000 appear promising.
- Once the historic foundations have been located using metal detectors and/or soil probes, the foundations will be excavated using a front-end loader/backhoe to determine the extent and depth of the foundation.
- The soil thickness observed above each foundation will be documented and used to modify the sampling depth intervals presented in the SSAP:

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- For foundations that have less than 0.5 feet (6 inches) of soil "cover", samples will be collected from the ground surface to a depth of approximately 1 foot below ground surface (bgs).
- For foundations that are more than 0.5 feet bgs, soil samples will be collected from a 1-foot interval beginning at the depth equal to the top of the building foundation.
- For all samples collected from depths greater than 1 foot and that exceed Preliminary Remediation Goals (PRG) in the screening analysis, a surface soil sample will be collected at that location during the subsequent delineation sampling.
- At approximately 10% of the locations sampled at depths greater than 1 foot but with nitroaromatic concentrations below PRGs, a surface soil sample will be collected to verify that the surface soils are not contaminated with DOD related compounds (i.e., nitroaromatics).
- Following receipt of field screening data for samples collected from greater than 1 foot bgs, all locations that have nitroaromatic concentrations exceeding the PRGs in the subsurface soils, the surface soil at that location will be sampled.
- For confirmation sampling, a minimum of 8 surface soil samples at each of the two sites (TNT Area A and TNT Area C) will be collected to support the risk assessment (exposure to surface soils). The selection of specific sampling locations will be based on field screening results.

All recommended confirmation sampling locations will be provided to the U. S. Army Corps of Engineers and the Ohio EPA for review and approval prior to confirmation sampling. Should you have any questions or require additional information regarding this matter, please do not hesitate to call the undersigned at (860) 688-1151.

Sincerely,



Mikael L. Spangberg  
Project Manager

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cc: R. Meadows, CELRH  
R. Kunath, NASA Plum Brook Station  
R. Nabors, Ohio EPA, NW District