DEPARTMENT OF THE NAVY
CRANE DIVISION
NAVAL SURFACE WARFARE CENTER
300 HIGHWAY 361
CRANE INDIANA 47522-5001

5090
Ser 095/6050
21 FEB 1996

U.S. Environmental Protection Agency, Region V
Waste, Pesticides, and Toxics Division
Waste Management Branch
Illinois, Indiana, and Michigan Section
Attn: Ms. Carol Ann Witt-Smith (HRP-8J)
77 West Jackson Blvd.
Chicago, IL 60604

Dear Ms. Witt-Smith:

The 1995 Base Realignment and Closure Commission directed the closure of both the Naval Surface Warfare Center, Crane Division, Louisville Kentucky, and the Naval Air Warfare Center, Aircraft Division, Indianapolis, Indiana. Certain activities and personnel from these facilities are scheduled to be relocated to Crane Division, Naval Surface Warfare Center (NAVSURFWARCENDIV Crane), Crane, Indiana.

To support the incoming workload at NAVSURFWARCENDIV Crane, facility construction and renovation is necessary. Part of the proposed action includes construction of paved parking areas at the Roads and Grounds Area (R&GA), Solid Waste Management Unit #15/06. Enclosure (1) shows the locations of the planned parking additions. Enclosure (2) contains excerpts from a preliminary report on sampling activities conducted at the R&GA.

NAVSURFWARCENDIV Crane proposes that, due to the low level of contaminants present at the site, the paved parking areas be considered as interim caps. This approach is consistent with the U.S. EPA's stabilization initiative, and the paved areas should serve to reduce leaching of contaminants from soils into groundwater. Therefore, NAVSURFWARCENDIV Crane requests the U.S. EPA's approval in order to proceed with this project.

NAVSURFWARCENDIV Crane point of contact is Mr. Thomas J. Brent, Code 09510, telephone 812-854-6160.

Sincerely,

[signature]
Deputy Director, Public Works Department
By direction of the Commanding

Copy to:
SOUTHNAVFACENGCOM (CODE 1864)
Turner, Collie, and Braden (Kelly Krenz)

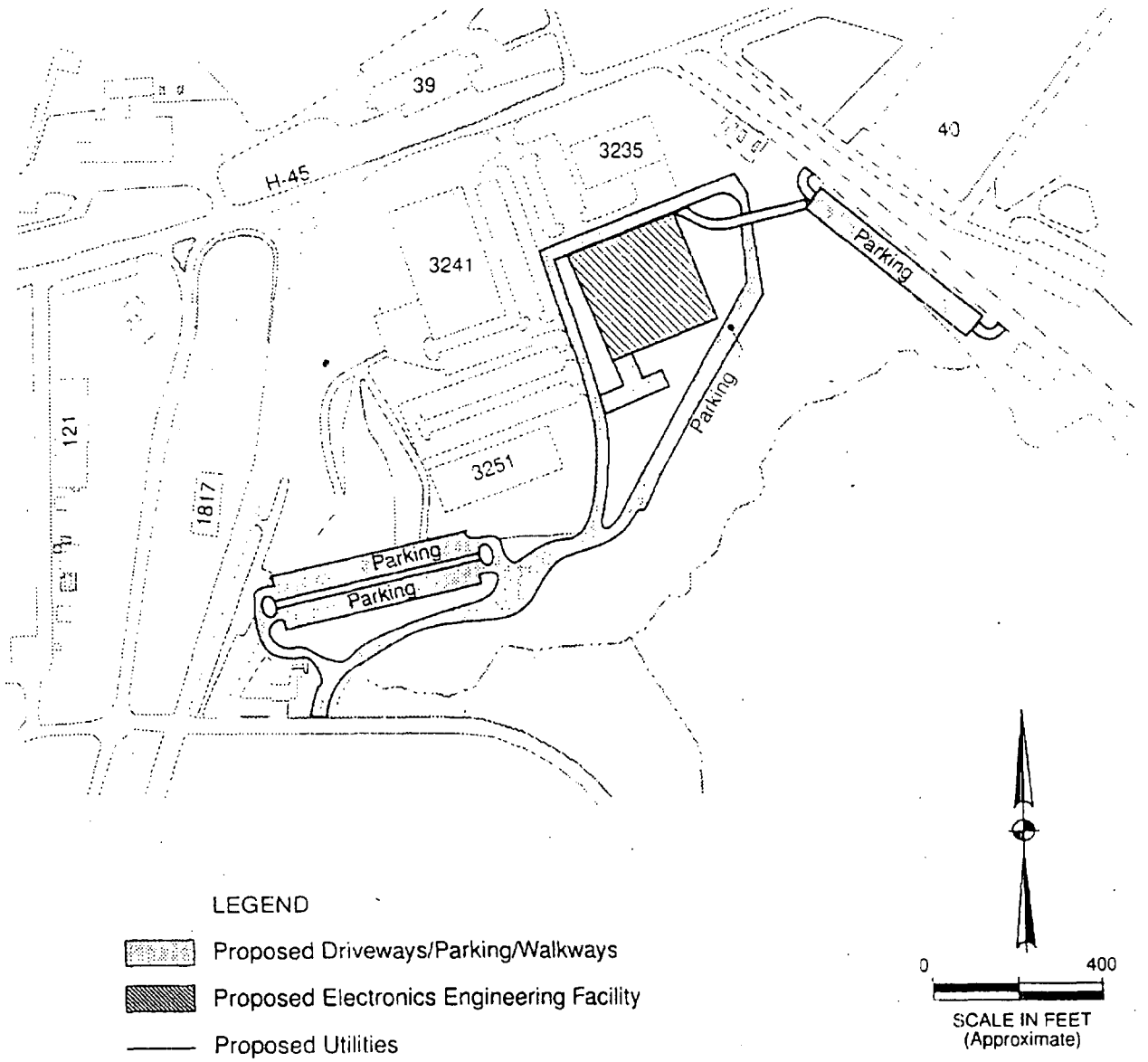

Figure 2-5. Electronics Engineering Facility

Enclosure (1)

Preliminary Report

The Naval Surface Warfare Center, Crane Division, requested assistance from the USACE Waterways Experiment Station (WES) for environmental sampling at the Pest Control Area/R-150 Tank area and the Roads and Grounds Area/SWMU 15/06. Samples of soil, sediments, and surface water were collected as an amendment to a finalized Phase II report and a modified Phase II Release assessment Field Investigation. A total of 265 soil, sediments, and surface water samples were collected. The environmental sampling was conducted utilizing the existing Waterways Experiment Station RFI Phase II Workplan. The completed environmental sampling locations are shown in Figures 1 and 2. Twenty-four soil samples were collected at four locations in the Pest Control Area and 156 samples were collected at twenty-one locations in the Roads & Grounds Area. Twenty-four sediment samples, twenty-nine surface water samples and four trip blanks were collected at two different locations adjacent to the Roads & Grounds Area (Fig. 2). To confirm proper decontamination procedures 28 rinsate samples were collected from both Roads & Grounds Area and Pest Control Area.

Chemical analyses were performed by the WES analytical laboratory for these samples.

A. Inorganics
   1. Metals (9 cations)

B. Organics
   2. Volatiles (38 individual compounds)
   3. Semivolatiles (76 individual compounds)
   4. Pesticides (48 compounds)
   5. Herbicides (9 compounds)
   6. Cyanide
   7. Total Recoverable Petroleum Hydrocarbons

WES Analytical Laboratory performed 182 individual tests for every sample, producing 48,230 data values. The laboratory work was completed during August 1995. The analytical results were transferred from the Analytical Laboratory to the Geotechnical Laboratory and entered into a computer database. The results were then tabulated to determine which chemical values were above action levels. From 48,230 data values only 22 data values (.05%) were above action levels.

The values above detection limit were compared to Environmental Protection Agency (EPA) Region III's *"Risk-Based Concentration Table (RBC)"*. The Risk-Based Concentration Table is divided into five different subjects, some of which are further subdivided into specific areas. For this specific project WES used two of those subjects: (1) Soil Ingestion, which is subdivided into Industrial and Residential; and (2) Soil Screening Levels: Transfers from Soil to Air, and Soil to Groundwater. From Soil Ingestion WES used the more stringent Residential standards to determine which values were above action levels. When these values are compared to the less stringent Industrial standards no values were above action levels. A summary of the preliminary risk based data is included in pages 4 and 5.

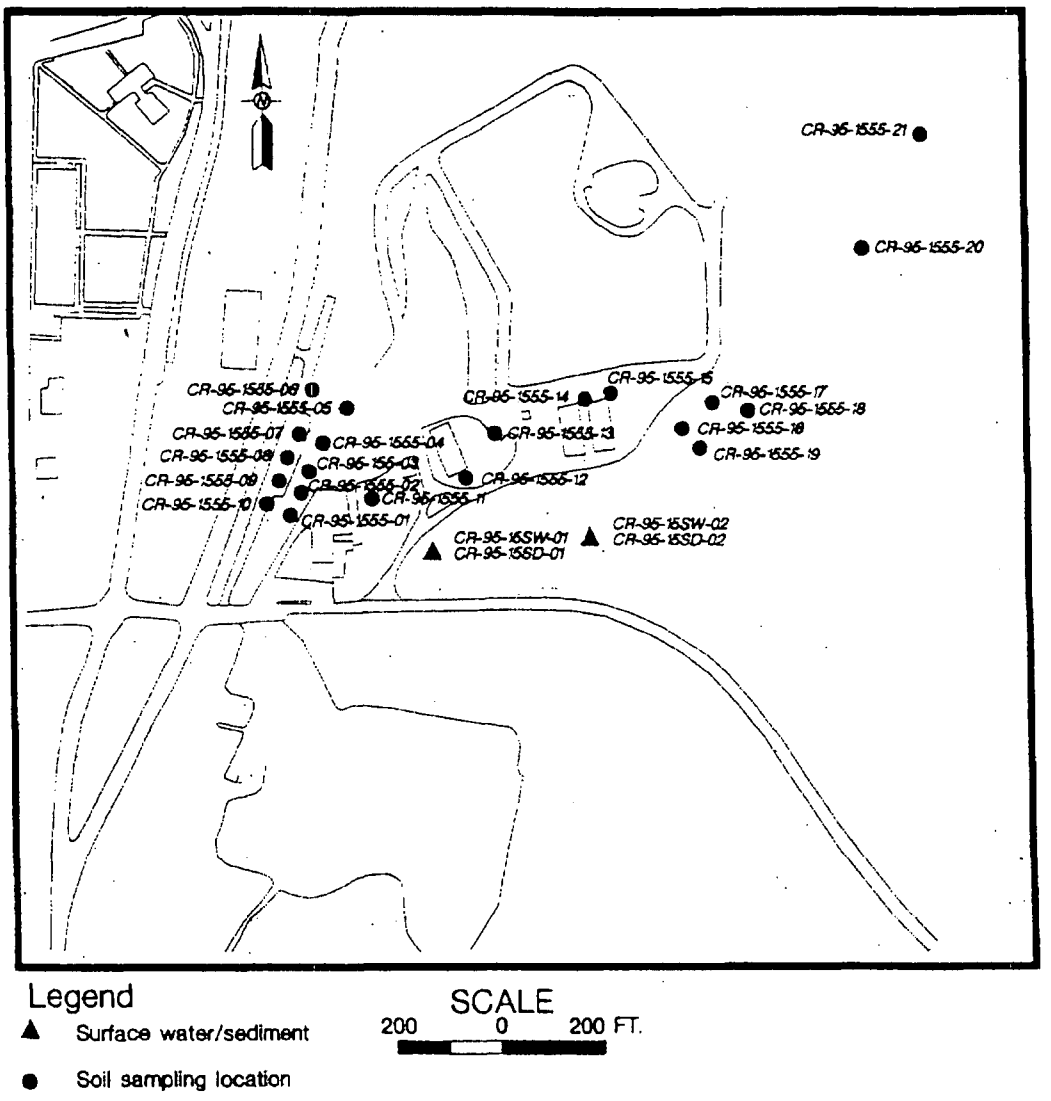

Figure 2. Location of Roads and Grounds Area/SWMU 15/06.

Summary of Preliminary Test Results

Utilizing the EPA Region III Risk-Based Concentration (RBC) tables only 22 data values (.05%) out of 48,230 data values were above action levels. None of the Herbicide or Cyanide samples were above action levels.

The following is a summary of the analytical results using Residential standards.

ROADS & GROUNDS

1. Two values for the Total Recoverable Petroleum Hydrocarbons were found to be above action levels as per personal communications from the WES Analytical Laboratory. The acceptable values for TRPH is 25 ppm (soils) and 0.5 ppm (water). The two values are for surface water samples 1 & 2.

   CR-95-15SW-01 134 ppm
   CR-95-15SW-02 750 ppm

2. Five values for Chromium in soil and sediment samples were found to be slightly above action levels in the EPA Region III Risk-Based Concentration (RBC) table. The EPA recommended action level is 19 ppm.

   Soil samples:

CR-95-1555-07	19.3 ppm	High transfer from soil to groundwater
CR-95-1555-08FD	19.7 ppm	High transfer from soil to groundwater
CR-95-1555-12	19.2 ppm	High transfer from soil to groundwater

   Sediment samples:

CR-95-15SD-02	35.8 ppm
Dup. Digest 54474	29.5 ppm

3. Two values for the Volatile Methylene Chloride (MECL) were found to be above action levels in the EPA Region III Risk-Based Concentration (RBC) table. The EPA recommended action level is 0.01 ppm. The two values were both found in soil samples. These values have a high transfer from soil to groundwater.

   CR-95-1555-17 0.01 ppm
   CR-95-1555-18 0.012 ppm

4. Three values for the Semivolatile in soil sample CR-95-1555-16 were found to be above action levels in the EPA Region III Risk-Based Concentration (RBC) table.

   CR-95-1555-16

   For Chrysene the EPA recommended action level is 1.0 ppm.

   Chrysene 1.02 ppm High transfer from soil to water

   For Benzo (a) Anthracene the EPA recommended action level is 0.7 ppm.

   Benzo (a) Anthracene 0.93 ppm High transfer from soil to water

For Benzo (b) Fluoranthene the EPA recommended action level is 0.7 ppm.

Benzo (b) Fluoranthene	0.91 ppm	High Soil Ingestion

5. Five values for the Chlorinated Pesticides in soil samples were found to be above action levels in the EPA Region III Risk-Based Concentration (RBC) table. The five values were found for three different tests in five different borings.

B-BHC

CR-95-1555-09	0.0027 PPM

Dieldrin - EPA recommended action level is 0.001 ppm.

CR-95-1555-02	0.0018 ppm	High transfer from soil to water
CR-95-1555-07	0.0010 ppm	High transfer from soil to water
CR-95-1555-09	0.0220 ppm	High transfer from soil to water

PCB-1242 - EPA recommended action level is 0.083 ppm.

CR-95-1555-19	0.472 PPM	High for residential

Chemical values not listed on the EPA Region III Risk-Based Concentration (RBC) tables include:

Chlorinated Pesticides

1. Sulfotep
2. Bolstar
3. EPN
4. Tokuthion
5. Fensulfothion

Metals:

1. Lead

Total Recoverable Petroleum Hydrocarbons (TRPH)

The WES could not determine the action levels for the six analytes described above. To our knowledge no EPA standards have been published, except for TRPH.

Conclusion:

1. No values would be above action levels if the Roads & Ground and Pest Control areas are considered Industrial sites. The Naval Surface Warfare Center, Crane Division must determine if these two areas are to be considered as an Industrial or Residential areas.

2. It must be determined if the analytes not covered in the EPA Region III Risk-Based Concentration (RBC) table are above action levels and represent a health risk.