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LETTER REGARDING REVIEW COMMENTS FOR THE SITE INSPECTION REPORT FOR MUNITIONS RESPONSE PROGRAM AT MACHINE GUN RANGE COMPLEX NAS JACKSONVILLE FL
9/27/2010
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Florida Department of Environmental Protection

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September 27, 2010

Commanding Officer
NAVFAC Southeast
Attn: Adrienne Wilson
Code OPA6, Cube 36
Building 135
NAS Jacksonville, FL 32212-0030

RE: Site Inspection Report for Munitions Response Program, Site Inspection at Former Machine Gun Range Complex, Naval Air Station Jacksonville, Jacksonville, Florida

Dear Adrienne:

I have completed my reviews of the Site Inspection Report for Munitions Response Program, Site Inspection at Former Machine Gun Range Complex, Naval Air Station Jacksonville, dated June 2010 (received July 30, 2010), prepared and submitted by Tetra Tech NUS, Inc. I have the following comments on the report:

General Comments

(1) In the Executive Summary and in the SPLP discussion of the six sites being investigated, it mentions a site specific calculation of SCTL for lead, antimony and lead. The report says these calculations are in Appendix D. As far as I can tell, they are not there. Also, the alternative SCTLs presented are not consistent with each other. Unless provided with the actual calculations that I can verify, I cannot concur with these alternative SCTLs. I would suggest that the calculations behind these alternative SCTLs may be incorrect and the Navy should default to the Department's published numbers for residential, commercial/industrial and leachability to groundwater, etc.

(2) For every site, in the discussion of munitions constituents in Sections X.1.2, nickel is listed as a constituent. However, nickel is not in the analytical program and several elements not identified in the report as associated munitions constituents (copper, tin and zinc) were analyzed. This represents a disconnect in the

discussion between what are identified as "other associated munitions constituents (MC)" and what was analyzed for. Please note that while copper, tin and zinc are not usually associated with lead shot, copper and zinc are the main components of brass casings.

(3) In the discussion of SPLP results for every site, the primary standard for groundwater or maximum concentration level (MCL) is denoted as "minimum human health criteria" or "human health criteria". Please denote the concentration as either the primary standard or MCL rather than referring to a human health criteria.

(4) There should be tables indicating the results for contaminants other than lead in each of the sections describing the investigative results for the six sites.

Fort Dix Skeet Range - PSC 22

(1) As this site comprises approximately 8 acres (Section 4.1) or 10.5 acres (Section 4.9.1), the averaging of lead concentrations or the calculation of a 95% UCL for a residential-type exposure based on the limited data set collected during the site investigation is not acceptable. The typical residential exposure unit is approximately ¼ acre and the concentrations to be statistically treated to determine an exposure point concentration for a potential future resident should be collected over that smaller area.

(2) In Section 4.6.1, third paragraph, last sentence, please replace "accidences" with "exceedances".

(3) On page 4-8, top paragraph, it says that subsurface soil samples were analyzed for antimony, arsenic, copper, lead, tin and zinc. On page 4-18, Section 4.10, third paragraph, it says subsurface soils were analyzed for zinc. This should be corrected.

(4) In Section 4.10, page 4-19, first paragraph, please add units to the zinc SCTL. In the second paragraph on that same page, second sentence, please change the BaP equivalent residential SCTL from 100 mg/kg to 100 µg/kg.

(5) There is something amiss with the analytical results from soil sample JAX-22-SBSS033 (0.0 to 0.5 ft bls) depicted on Figure 4-3. Based on what is reported in that figure, the soil sample is comprised of 18.3% copper, 3.45% zinc and 1.29% tin.

(6) I concur with the recommendation that additional investigation is warranted at Fort Dix Skeet Range.

.50 Caliber Range - PSC 23A

(1) On page 5-12, in Section 5.10, fifth paragraph, please change the units for antimony and lead GCTLs to µg/L.

(2) The investigation of the .50 Caliber Range mainly focused on subsurface soils because fill dirt has reportedly been placed over the former range. Therefore, the detections of contaminants in soil came from soils that typical receptors would not normally come into contact with. As there were some detections of lead and copper in subsurface soil at concentrations greater than the Department's residential SCTL, some limited further assessment of soil contamination should be done in conjunction with the groundwater investigation proposed.

(3) Section 5.2.1 does not have a discussion of the field action levels (XRF) that were used to determine whether to collect further subsurface soil samples, whether to send the soil to the laboratory to be analyzed for metals, or whether to send a soil sample to the lab for SPLP analysis.

Former Skeet Range - PSC 23B

(1) Same comment (1) as applies to the Fort Dix Skeet Range applies to this site as well.

(2) In Section 6.2.1, the field action level for the 0 to 0.5 feet bgs is reported as 200 mg/kg while the field action level for the 0.5 to 2 feet bgs is reported as 300 mg/kg. Please verify that this is correct.

(3) In Section 6.6.1, page 6-7, second paragraph, please change "accidences" to "exceedances".

(4) In Section 6.7, page 6-11, fourth paragraph, it says that an incomplete pathway exists for all potential receptors by the inhalation route. This contradicts what is said on page 6-12, third paragraph, last sentence, where it says complete exposure pathways exist for all receptors via ingestion, inhalation, and dermal contact.

(5) On page 6-19, top paragraph, please change the units from mg/L to µg/L.

(6) I concur with the recommendation that further soil and groundwater investigation be conducted on the Former Skeet Range - PSC 23B.

Akron Road Pistol Range - PSC 56

(1) On page 7-10, in the SPLP discussion, third paragraph, please change the units from mg/L to µg/L.

(2) On pages 7-11 and 7-12, same comment as (4) for the Former Skeet Range.

(3) I concur that further investigation of the Akron Road Pistol Range is warranted.

.30 Caliber Range - PSC 57

(1) On pages 8-9 and 8-10, same comment as (4) for the Former Skeet Range.

(2) On page 8-13, bottom paragraph, please change the units from mg/L to µg/L.

(3) Of the six MRP sites reported on, this site appears to be the least contaminated. As this site appears to be wholly located on the golf course, I am less concerned with potential ecological risks from lead contamination in soil, especially at the low concentrations reported. Therefore, additional investigation to delineate arsenic to the Department's residential SCTL (2.1 mg/kg) and lead contamination to the tiered select ecological screening criterion (11 mg/kg) is probably not necessary. However, I concur that a limited investigation to determine if groundwater has been impacted by site activities should be conducted.

Trap Ranges - PSC 58

(1) Further investigation of the Trap Ranges is warranted. The investigation should also include a surface water evaluation of the golf course ponds associated with this site.

If you have any concerns regarding this letter, please contact me at (850) 245-8997.

Sincerely,

David P. Grabka

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

CC: Mark Peterson, Tetra Tech, Jacksonville
Casey Hudson, CH2M Hill, Atlanta
Pete Dao, EPA Region IV, Atlanta
Tim Curtin, NASJAX
Tim Bahr, FDEP, Tallahassee

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