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LETTER FROM FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REGARDING  
SITE INSPECTION REPORT FOR MUNITIONS RESPONSE PROGRAM SITE INSPECTION  
AT FOURTEEN MUNITIONS RESPONSE PROGRAM SITES AND FINAL PRELIMINARY  
ASSESSMENT FOR THE DREDGE SPOIL AREA FLEMING KEY AND TRUMBO POINT  
TEMPORARY STAGING AREA NAS KEY WEST FL

2/7/2011

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



# Florida Department of Environmental Protection

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February 7, 2011

Mr. Dana Hayworth, P.G.  
Department of the Navy  
Naval Facilities Engineering Command Southeast  
Building 135, Ajax Street  
Naval Air Station Jacksonville  
Jacksonville, Florida, 32212-0030

**This letter refers to the following documents:**

- **Site Inspection Report for Munitions Response Program Site Inspections at Fourteen Munitions Response Program Sites, and**
- **Final Preliminary Assessment For the Dredge Spoil Area, Fleming Key and Trumbo Point Temporary Staging Area, Naval Air Station Key West, Florida**

Dear Mr. Hayworth:

The Department has completed the technical review of the Site Inspection Report for Munitions Response Program Site Inspections at Fourteen Munitions Response Program Sites dated September 2010 (received September 29, 2010) and the Final Preliminary Assessment For the Dredge Spoil Area, Fleming Key and Trumbo Point Temporary Staging Area dated December 2010 (received December 27, 2010) and has the following comments for both documents:

1. **General Comment:** When comparing Worksheet #15 Reference Limits and Evaluation Table in the Final Sampling and Analysis Plan for Munitions Response Program Limited Site Inspections at Fourteen Munitions Response Program Sites to this report it was determined that the project action levels (PALs) for Fluoranthene and Naphthalene are not correct. Please change these PALs to reflect the criteria listed in Florida's Sediment Quality Assessment Guidelines (SQAGs). The Department would also like Naval Air Station Key West (NAS Key West) to re-evaluate any assessment work that has been done to date taking these changes in to consideration when evaluating the data.

2. **General Comment:** The Department has determined that sites in the Munitions Response Program (MRP) that may have had contamination in the soil for a prolonged period of time should have groundwater assessments conducted to determine that the contamination has not leached into the groundwater, unless adequate information can be provided to support a proposal not to sample it or the groundwater.
  
3. **General Comment for all Summary of Positive Detection in Surface Soil and Sediment Tables:** Please insert the PAL Reference column in the additional pages of this table. It is difficult to determine which guidance criteria is being referenced if the PAL Reference column is only located on the first page of each table.
  
4. **Page 5-6, Section 5.5 Recommendations:** The Department concurs with the following proposed recommendations:
  - The utilization of statistical techniques (e.g. VSP-UXO Module) to determine survey transect spacing for further investigation.
  
  - Performing a subsurface geophysical investigation using digital geophysical techniques.
  
  - Conducting an investigation of selected subsurface anomalies with the number of anomalies investigated to be determined by statistical techniques (e.g. VSP-UXO Module).
  
  - Sampling for MC constituents based on results from a geophysical and anomaly investigation.
  
5. **Chapter 5 Dredge Spoil Area, Fleming Key:** To date it has not been determined whether this site is a Munitions Constituents (MC) site or a Munitions and Explosives of Concern (MEC) site. This will not be determined until after the geophysical investigation is completed. The Department feels this situation needs to be taken into consideration when conducting any additional assessment work at this site.
  
6. **Page 6-5, Section 6.5 Recommendations:** The Department concurs with the following proposed recommendations:

- The utilization of statistical techniques (e.g. VSP-UXO Module) to determine survey transect spacing for further investigation.
- Performing a subsurface geophysical investigation using digital geophysical techniques.
- Conducting an investigation of selected subsurface anomalies with the number of anomalies investigated to be determined by statistical techniques (e.g. VSP-UXO Module).
- Sampling for MC constituents based on results from a geophysical and anomaly investigation.

7. **Chapter 6 Trumbo Point Temporary Staging Area:** To date it has not been determined whether this site is a MC site or a MEC site. This will not be determined until after the geophysical investigation is completed for this site. The Department feels this situation needs to be taken into consideration when conducting any additional assessment work at this site.

8. **Chapter 7 Skeet Range #820, North Boca Chica, page 7-13 Section 7.8**

**Recommendations:** The Department concurs with the following proposed recommendations:

- Collecting additional soil samples within a 100 foot buffer area of the property boundary of the wastewater treatment plant for PAH and nitroglycerin analysis.
- Completing focused Ecological and Human Health Risk Assessments for soil and sediment.

9. **Chapter 8 Pistol Range #821, North Boca Chica, page 8-12 Section 8.9**

**Recommendations:** The Department concurs with the following proposed recommendations:

- Collecting additional soil samples in the area of the former berm for metals analysis.
- Collecting groundwater data due to Synthetic Precipitation Leaching Procedure (SPLP) metals exceedences to determine whether or not the groundwater has been impacted at this site.
- Completing focused Ecological and Human Health Risk Assessments for soil.

10. **Chapter 9 Boca Chica Field Sites Page 9-16, Section 9.7.5 Site Inspection Data Collection Results and Figure 9-5 Metals Exceedences in Surface Soil and Sediment Boca Chica Field Sites:** This area is located at the active Boca Chica airfield and the majority of the former site is covered by several feet of concrete. This area was developed for use in its current configuration in the 1950s when the runways, taxiways and aprons were extended.

The site historically had four sites which are listed below:

- **The Rocket Loading Area**, which is located at the active Boca Chica airfield and the majority of the former site is covered by several feet of concrete.
- **The Bore Sighting Range**, which is located adjacent to and east of the Rocket Loading Area and Skeet Range. Firing appears to have been directed to the north.
- **The Trap Range**, which was located adjacent to and north/northeast of the shooting-in-butt range.
- **The Skeet Range**, which was located adjacent to and northeast of the Rocket Landing Area and west of the Shooting-in-Butt Range. Skeet shooting was directed to the west.

Potential future land use is assumed to be the same as present land use for all of these sites. This section and figure discuss the surface soil exceedences and sediment exceedences for this site. Arsenic exceeded both residential and industrial Soil Cleanup Target Levels (SCTLs), and copper and lead exceeded residential SCTLs. The sediments had exceedences for both copper and lead.

NAS Key West has proposed getting an NFA with land use controls for the Rocket loading site. The Department feels that the arsenic, copper and lead soil contamination that exceeded both industrial and residential SCTLs would need to be delineated and excavated along with further assessment of the contaminated sediments, prior to approval of an NFA for this site.

11. **Page 9-23, Section 9.10 Recommendations:** The Department concurs with the recommendation to obtain NFA with land use controls for The Bore Sighting Range, The Trap Range and The Skeet Range.

**12. Chapter 10 Marine Rifle Range, Sigsbee Park Annex, Page 10-3, Section 10.2.3**

**Field Data Collection:** How did NAS Key West determine the range of this rifle range? Generally, biased sampling is to be conducted in the berm at a rifle range site and because this range is located over a water body, no berm was detected. The Department would like to propose that the property located due north of this range may have served as the berm and feels it should be sampled for the appropriate contaminants of concern (COCs).

**13. Page 10-11, Section 10.8, Recommendations:** The Department cannot concur with the proposed NFA for this site due to the arsenic, copper and zinc that were detected in the sediments that exceed the criteria listed in the Florida SQAGs.

**14. Chapter 11 Rifle Range Truman Annex, Page 11-10, Section 11.9**

**Recommendations:** The Department cannot concur with the proposed NFA for this site due to the arsenic and copper that was detected in the surface soil samples that exceed the criteria listed in the residential SCTLs for the state of Florida. We propose that NAS Key West collect confirmatory surface soil samples as a next phase in the assessment for this site.

**15. Chapter 12 Pistol Range, Fleming Key Page 12-14, Section 12.9 Recommendations:**  
The Department concurs with the following proposed recommendations:

- Collecting additional soil samples in the area of the former berm for metals analysis. The samples should be collected above the buried waste in the landfill and care should be taken to make sure this happens.
- Collecting additional soil samples in the former firing line for nitroglycerin analysis.
- Complete focused Ecological and Human Health Risk Assessments for soil and sediment.
- The Department concurs with the recommendation to combine the MC SI data with the information repository for IR 7.
- The Department concurs with providing notice to the appropriate parties that this MRP site is located adjacent to the buildings associated with the Harry S. Truman Animal Import Center.

**16. Chapter 12 Pistol Range, Fleming Key :** When reviewing this site's history it was determined that previous investigations indicated that additional

contamination that is not MRP site related is located adjacent this site. The additional COCs validated from previous investigations were Polychlorinated biphenyls (PCBs), Semi Volatile Organics (SVOCs) and metals. These COCs should be added to the list of constituents to be analyzed for any future assessment work for soil, sediment and groundwater at this site.

**17. Chapter 12 Pistol Range, Fleming Key Page 12-14, Section 12.9**

**Recommendations:** The Department cannot provide an NFA for sediments until we determine the status of this site after a full remedial investigation (RI) has been completed.

**18. Chapter 13 Pistol Range, Trumbo Point Annex, Page 13-10, Section 13.9**

**Recommendations:** The Department cannot concur with the proposed NFA for this site due to the arsenic detected in the surface soil samples that exceed the criteria listed in the residential SCTLs for the state of Florida. We propose that NAS Key West collect confirmatory surface soil samples again as a next phase in the assessment for this site.

**19. Chapter 14 Skeet Range Trumbo Point Annex, Page 14-13 and 14, Section 14.7**

**Conclusions and Section 14.8 Recommendations:** The Department cannot concur with the proposed NFA for this site for the reasons listed below:

- The surface soil data collected for this site has contamination that exceeds the residential SCTL for both arsenic, copper and benzo(a)pyrene.
- When the surface soil was analyzed to determine if the contamination would fail or pass SPLP it failed for benzo(a)anthracene, benzo(b)fluoranthene and dibenzo(a,h)anthracene.
- When the sediment was analyzed to determine if the concentrations exceeded Florida SQAGs or the National Oceanic and Atmospheric Administration Screening Quick Reference Tables (NOAA SQRs) the following sediments exceeded this criteria: 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, BAP Equivalent, benzo(a)anthracene, benzo(b)pyrene, benzo(g,h,i)perylene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene and phenanthrene

NAS Key West's rationale for not addressing contamination at this site is because they found no lead contamination in the surface soil or sediment that exceeded our guidance criteria. NAS Key West feels that they should have found lead at

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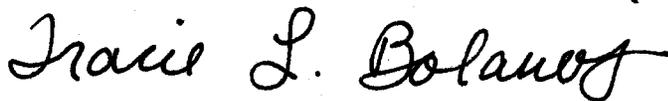
this site because lead is normally found at skeet ranges. The Department's position on this is NAS Key West is still finding other constituents that could have come from the skeet range which means that NAS Key West is still responsible for this contamination. Considering this is a residential neighborhood the Department feels strongly that this contamination needs to be addressed.

**20. Chapter 14, Skeet Range Trumbo Point Annex, Page 14-14, Section 14.8**

**Recommendations:** The Department concurs with the possibility that the PAHs contamination found in the sediment located off shore could be due to boat traffic that may be in that area. We would like to propose that NAS Key West collect background data to help demonstrate this theory.

If I can be of any further assistance with this matter, please contact me at (850) 245-8998.

Sincerely



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Remedial Project Manager  
Federal Programs Section  
Bureau of Waste Cleanup

JJC  ESN 

cc: Mr. Robert Courtright, Naval Air Station Key West, Key West, Florida  
Mr. Chuck Bryan, Tetra Tech NUS, Inc. Aiken, South Carolina