



May 31, 1996

Mr. Kent Strong  
Department of Toxic Substances Control, Region 1  
10151 Croydon Way, Suite 3  
Sacramento, California 95827-7609

**Subject: Soil Sampling and Analysis Plan, Site 14 Soil Pile  
Naval Auxiliary Landing Field (NALF) Crows Landing**

Dear Mr. Strong:

The purpose of this letter is to describe proposed soil sampling and analysis at Installation Restoration Program (IRP) Site 14, Naval Auxiliary Landing Field (NALF) Crows Landing.

As you are aware, Site 14 is the former location of the fire training area. The area consisted of an unlined burn pit used for fire training exercises. In 1987, the Navy initiated a project to replace the unlined burn pit with a concrete-lined structure. During excavation, high concentrations of hydrocarbons were encountered in the soil and the project was halted. The same year, the Navy initiated investigations to determine the nature and extent of contamination at the site.

On completion of the contaminant extent investigation, the Navy began remediation of the site using a low temperature thermal treatment (LT<sup>3</sup>) process to thermally volatilize organic compounds from soil. All contaminated soil was excavated from the unlined pit, treated with the LT<sup>3</sup> system, and stockpiled adjacent to the site.

Soil samples were collected and analyzed for the presence of total purgeable hydrocarbons, benzene, toluene, ethylbenzene, and xylenes (BTEX) to evaluate the performance of the LT<sup>3</sup> system and to confirm that all contaminated soil was removed from the area of excavation. Analytical results indicated that all contaminated soil was removed and effectively treated.

During a remedial project managers (RPM) meeting held on February 15, 1996, the California Department of Toxic Substances Control (DTSC) expressed concern regarding possible formation of dioxins and furans from the combustion of chlorinated solvents that may not have been destroyed in the LT<sup>3</sup> system. In addition, the Regional Water Quality Control Board (RWQCB) expressed concern regarding the possible occurrence of elevated metals concentrations from the combustion of waste oils during fire training exercises. Neither dioxins, furans, nor metals were analyzed for as part of any previous investigations at Site 14. It was agreed by the RPM meeting participants that samples would be collected from the treated soil stockpile.

In response to the agreement reached at the RPM meeting, PRC Environmental Management, Inc. (PRC) will collect four soil samples from the treated soil stockpile adjacent to the former fire training area during upcoming field activities scheduled to begin June 3, 1996. Samples will be collected from the northern, southern, eastern, and western sides of the soil pile at points midway between the base and top of the pile and at a depth of approximately 2 feet using a stainless steel hand auger. All sampling procedures will follow the protocols established in the basewide Quality Assurance Project

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Plan. All soil samples will be analyzed for the presence of dioxins and furans using Environmental Protection Agency (EPA) Method 8280, and total metals using Contract Laboratory Program (CLP) Methodology.

To meet requirements for off-site disposal, if required, all soil samples collected from the pile will also be analyzed by the toxicity characteristic leachate procedure (TCLP) for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), and metals. Samples will also be archived for possible deionized water waste extraction test (DI-WET) analysis. The samples will be analyzed for DI-WET metals concentrations, if necessary, for comparison with previously established DI-WET metals background concentrations.

Results of all laboratory analyses will be presented in the IRP Sites Remedial Investigation (RI) report. Conclusions and recommendations regarding final disposition of the soil pile will be based on analytical results and will also be presented in the RI report.

Please call me at (303) 312-8815 or Neil Bingert at (303) 312-8877 if you have any questions regarding this sampling and analysis plan for the Site 14 soil pile at NALF Crows Landing.

Sincerely,

  
Keith Reamer  
Project Manager

KAR/mlr

cc: Hubert Chan, EFA-WEST  
Don Chuck, EFA-WEST  
Philip Isorena, RWQCB  
Sandy Olliges, NASA  
Neil Bingert, PRC  
NALF Crows Landing Administrative Record, 2 copies