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October 9, 1998

Mr. Hubert Chan
Engineering Field Activity West
Naval Facilities Engineering Command
900 Commodore Drive, Building 208
San Bruno, California 94066-5006

**Subject: Naval Auxiliary Landing Field (NALF) Crows Landing
Additional Field Investigations, Installation Restoration Program (IRP)
Sites 10 and 14
CLEAN II Contract N62474-94-D-7609, Contract Task Order 219**

Dear Mr. Chan:

This letter documents agreements between the Navy and the Regional Water Quality Control Board (RWQCB) regarding additional investigations at IRP Sites 10 and 14 at NALF Crows Landing. The agreements were reached during a conference call held September 11, 1998. The conference call was held to discuss RWQCB concerns that resulted from its reviews of the no further action (NFA) record of decision (ROD) for IRP Sites 10, 12, 13, 14, 16, and 18, and the remedial investigation (RI) report for all IRP sites at NALF Crows Landing. The call was attended by Don Chuck from Moffett Federal Airfield (MFA), Hubert Chan from Engineering Field Activity West (EFA West), Robert Reeves from the RWQCB, and Keith Reamer of Tetra Tech EM, Inc (TtEMI).

In addition to IRP Sites 10 and 14, RWQCB also expressed concerns regarding conclusions based on previous investigations at IRP Sites 12, 13, 16, and 18. These concerns were discussed during the conference call; however, it was agreed that no additional investigations are required at these sites. Instead, these sites are discussed in the Navy's responses to RWQCB comments on the NFA ROD, dated September 29, 1998, that were prepared in response to RWQCB's technical review comment letter dated June 26, 1998.

In the spirit of cooperation with regulatory agencies, the Navy will further demonstrate its commitment to clean up all identified sites at NALF Crows Landing by conducting the additional investigations at IRP Sites 10 and 14 described herein. This letter presents a brief history of the IRP site, states the RWQCB concerns, and outlines field activities that will take place to resolve the concerns raised by them.

IRP Site 10

IRP Site 10 is the former rubble disposal area located at the southeastern end of the northwest-trending runway. A pit was dug at this location and used for rubble disposal in 1952 and 1953. Pit contents reportedly included scrap lumber, drywall, metal, ash, wire, and pipe from building construction and demolition. Debris was said to have been placed in the pit, burned, and covered with soil. There are no records indicating that hazardous substances were disposed of at IRP Site 10. No evidence of the pit remains.

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IRP Site 10 was identified and evaluated by the Naval Energy and Environmental Support Activity (NEESA) in 1984 during an initial assessment study (IAS). The IAS consisted of a records search, interviews with long-term base personnel, and an on-site survey. The IAS concluded that the site posed no threat to human health or to the environment. In 1990, Ecology and Environment, Inc. (E&E) reviewed the IAS report for compliance with Environmental Protection Agency (EPA) requirements. The review determined that no further investigations were warranted due to the nature of former activities at Site 10. No subsequent investigations were conducted.

The RI report included a recommendation that no further investigative or cleanup activities be conducted at IRP Site 10. RWQCB approved the RI report for finalization in a letter dated October 2, 1997. DTSC concurred with the NFA designations in their draft final RI report comments. The draft proposed plan recommends no action at IRP Site 10. The NFA ROD summarized the results of the RI and selects no further action at IRP Site 10.

RWQCB Concern

RWQCB expressed concerns that no samples were collected at this site. RWQCB evaluated the information that was the basis for the 1990 E&E decision. RWQCB concluded that there is no basis for the NFA determination at IRP Site 10. Further, RWQCB stated that its experience with similar disposal sites at other military facilities indicates that historical records alone are often not a complete record of disposal practices. For these reasons, RWQCB proposed additional investigations to determine the presence of the disposal pit.

Resolution

The Navy will review all available historic photographs and literature regarding IRP Site 10 to be sure that IRP Site 10 is located as accurately as possible. When the former location has been verified to the best of the Navy's ability, two trenches will be excavated to determine whether buried debris, rubble, or other material are present. Each trench will be approximately 20 feet long and dug to a depth where native material is evident, indicating that deeper buried debris is unlikely. One trench will be oriented in the north-south direction; the other trench will be oriented in the east-west direction. Both trenches will be centered on the spot identified as the former IRP Site 10 location.

If trenching indicates that no buried debris or other contaminants are present, both trenches will be backfilled with the original soil and compacted to match their surroundings. The NFA ROD for IRP Sites 10, 12, 13, 14, 16, and 18 will then be revised to summarize the results of these additional investigations. The NFA ROD conclusion that IRP Site 10 does not pose a threat to human health or the environment will then be considered valid, justifiable, and final.

If trenching indicates the presence of buried debris, excavation will be expanded to the extent necessary to ascertain the depth, lateral extent, and nature of the buried material. During excavation, visual, olfactory, and photoionization detector (PID) methods will be employed to determine the presence of subsurface material that requires permanent removal and off site disposal. If it is determined that the buried material consists only of construction debris such as concrete, metal fragments, wood, or other benign material, and exhibits no elevated PID readings, odors, or staining, the material will be segregated from the excavated soil and disposed of at a Class 3 landfill. No analytical sampling will be conducted. The extra volume of soil required for backfilling the excavation will be obtained from the soil pile derived from the thermal treatment operation at IRP Site 14. Analytical samples have been collected from this pile at the request of RWQCB and the Department of Toxic Substances Control (DTSC) for a previous proposal to use the soil as backfill material. Agency approval was received and the material was used as backfill at the IRP Sites 12 and 16 excavations.

If trenching and excavation indicate the presence of buried debris with noticeable hydrocarbon odors, staining, or PID readings greater than 100 parts per million (ppm) indicative of petroleum contamination, excavation will be expanded to the extent necessary to ascertain the depth, lateral extent, and nature of the buried material. All material removed from the excavation will be transported off site for proper disposal. Soil samples will be collected from the base and sidewalls of the excavation and submitted to the analytical laboratory for expedited analysis. Analytical results will be used to determine the need for expanding the excavation and collecting additional samples. However, the suite of analyses to be performed on each sample cannot be determined until contaminant information has been gathered during excavation.

Finally, if odors or staining indicate the site contains CERCLA hazardous substances, the Navy will assess whether a removal action is appropriate.

IRP Site 14

IRP Site 14 was the fire training area located in the main administration area. The area had an unlined burn pit used for fire training exercises. Fire training exercises were conducted from 1943 to 1987. Typical fire training exercises included pouring jet fuel, often mixed with crankcase oil and cleaning solvents, over a mock airplane and igniting it. The fire was then extinguished with water.

In 1987, the Navy initiated a project to replace the unlined burn pit with a concrete-lined structure. Soils contaminated with high concentrations of hydrocarbons were encountered during excavation and the project was halted. In the same year, the Navy began evaluating the nature and extent of contamination at IRP Site 14. Soil and groundwater samples were collected and analyzed for the presence of fuels and fuel-related compounds. The investigations assessed the extent of soil contamination at IRP Site 14 and became the design basis for excavating contaminated soils and implementing the remedial treatment system. The Navy began remediation of the site using a low temperature thermal treatment (LT³) process, which thermally volatilizes contaminants from soil. All contaminated soils were excavated from the unlined pit and treated with the LT³ system in March and April 1991.

Soil samples were collected during various stages in the treatment process. Confirmation soil samples were also collected from the base and sidewalls of the Site 14 excavation. Treated soil and confirmation sample analytical results indicate that all contaminated soils were removed from Site 14 and successfully treated. The excavation was backfilled with clean soil imported from off site.

During the RI, regulatory agencies expressed concern regarding dioxins and furans in the treated soil pile resulting from LT³ combustion. Additional concern was expressed regarding the possibility of elevated metals concentrations in the soil pile from the use of waste oils during fire training exercises. As a result, several samples were collected from the soil pile and analyzed for these contaminants. Elevated levels of metals were not detected. Low levels of dioxins were detected, but they pose no threat to human health or the environment. Regulators approved the use of the treated soil stockpile as backfill in the excavations at IRP Sites 12 and 16.

The RI report included a recommendation that no further investigative or cleanup activities be conducted at IRP Site 14. The draft NFA ROD summarized the results of the RI and concluded that no action was appropriate because the site does not pose a risk to human health or the environment.

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Concern

RWQCB expressed concerns that the monitoring well installed at IRP Site 14 was only sampled twice before it went dry due to a declining regional water table. RWQCB believes that two sampling events are inadequate for concluding that groundwater has not been impacted by contaminants, specifically chlorinated VOCs, at IRP Site 14. Therefore, RWQCB requested that additional groundwater sampling be conducted at the site to evaluate whether chlorinated VOCs are present at the site.

Resolution

The Navy will conduct HydroPunch (HP) groundwater sampling at two locations at IRP Site 14. HP samples will be collected from the southern and northern ends of the former excavation boundary. Two samples will be collected from each HP location for a total of four groundwater samples. One sample from each location will be collected from the top of the water table at approximately 55 feet below ground surface (bgs). Additional samples will be collected at 20 foot intervals at each HP location from the water table to a depth of approximately 100 to 120 feet bgs, depending on the limits of the HP system. Past experience at the installation has shown that pushing a sampler below 100 feet bgs is not always achievable with the HP system. The deeper samples will be collected and archived. If the shallow samples indicate the presence of contamination, the archived samples will be submitted to the analytical laboratory to evaluate the vertical extent of contamination. Groundwater samples will be analyzed for the presence of VOCs.

If groundwater sample analytical results indicate the presence of VOCs at IRP Site 14, further discussion will be held between the Navy and regulatory agencies regarding the need for installation of a groundwater monitoring system. The decision to pursue any future course of action for groundwater at IRP Site 14 will take into consideration contaminant type, concentration, and propensity toward natural attenuation.

If shallow sample analytical results indicate that no contamination is present, the archived samples will be discarded and no further sampling will be conducted. The NFA ROD for IRP Sites 10, 12, 13, 14, 16, and 18 will then be revised to summarize the results of these additional investigations. The NFA ROD conclusion that IRP Site 14 does not pose a risk to human health or the environment will then be considered valid, justifiable, and final.

If you have any questions regarding the proposed field work, please call me at (303) 312-8815.

Sincerely,



Keith Reamer
Installation Coordinator

KAR/rkr

cc: Don Chuck, Moffett Federal Airfield
Ray Leclerc, California Department of Toxic Substances Control
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