



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 28, 2008

Mr. Stephen B. Etsitty, Director
Executive Office
Navajo Nation Environmental Protection Agency
P.O. Box 339
Window Rock, AZ 86515

Subject: Recommendation for No Further Action for the Underground Storage Tank Site
at the Old Dunn Mercantile Trading Post, Fort Defiance, AZ, (NAV-275)

Dear Mr. Etsitty:

The United States Environmental Protection Agency (USEPA), Region 9 has completed our review of the report - *Underground Storage Tank Removal, Old Dunn Mercantile*, dated October 1, 2007. The report describes the tank removal and site assessment at the former **Old Dunn Mercantile Trading Post** underground storage tank (UST) site. These activities were done during the month of August 2007 and were funded by the Navajo Nation EPA (NNEPA) special revenue fund. The work was performed by Ironhorse Environmental Services, Inc. of Window Rock, Arizona.

Two USTs were removed from the site; there was no product piping or fueling island observed. During this assessment, a petroleum hydrocarbon release to the soil was documented in one of the UST excavation pits. Approximately, 150 cubic yards of petroleum contaminated soil (PCS) was removed, however not all of the soil contamination was taken out of the pit. At each UST pit, two soil samples were collected from the bottom of the pit. Prior to back filling the excavations, an in-situ treatment using enhanced bio-chemical solution was applied to the remaining exposed hydrocarbon impacted soil in both excavations. The stockpiled soil from the excavations was also treated with the enhanced bio-chemical solution and was mixed with imported clean soil prior to back filling. The excavations were top off with clean soil.

Hydrocarbon contamination exceeding the NNEPA screening levels were detected at three sampling locations below the tank pit where a release was suspected. Total petroleum hydrocarbons (TPH) as diesel was detected in two locations at 1,200 and 470 ppm. TPH as gasoline was detected at 1,100 ppm. The soil contamination was noted at a depth of 15.5 feet below ground surface (bgs). Groundwater was not encountered during this investigation. Based on local hydrogeology, groundwater is expected to be at about 70 bgs. The NNEPA screening level for both TPH as gasoline and as diesel is 100

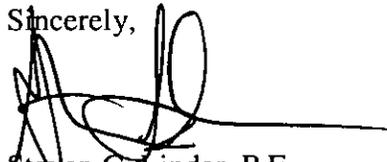
ppm. Benzene at 3.1 mg/kg was detected at one location beneath one of the tanks. This level is slightly above the screening level for benzene (1.4 mg/kg for both NNEPA and Region 9 EPA). Based on the sampling results, the remaining contamination appears to be confined to one UST location.

In a teleconference on April 23, 2008, EPA Region 9 and NNEPA discussed the above findings to determine the next course of action. It was agreed that additional corrective action was not needed for this site. The remaining contamination in the pit was treated with an enhanced bio-chemical solution to allow native microorganisms to grow and attenuate in the clayey soil. We have a high degree of confidence that this treatment will be effective in remediating the remaining impacted soil based on the performance of the enhanced bio-chemical solution at similar Navajo petroleum-contaminated sites. The attenuation of the contamination concentration in the clayey soil over time decreases the potential to impact the deep groundwater.

A letter dated April 24, 2008, was received from Mr. Henry Haven of the NNEPA UST program recommending closure for this site. A copy of this email has been placed in the site file. At this time, EPA recommends no further actions for this site. If additional information is presented which indicates additional actions are needed, EPA will work with the NNEPA on addressing those issues.

If you have any questions regarding the information contained in this letter, please contact Carl Warren of my staff at (415) 972-3355.

Sincerely,



Steven C. Linder, P.E.

Manager

Underground Storage Tanks Program Office

U.S. Environmental Protection Agency – Region IX

cc: Henry Haven, NNEPA
Warren Roan, NNEPA
Carl Warren, UST Program Office, US EPA Region IX
Mimi Newton, Office of Regional Counsel, US EPA Region IX

File copy NAV-275