

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

## Underground Storage Tanks Program Office 75 Hawthorne Street (WST-8) San Francisco, CA 94105

September 18, 2013

Ms. Diane Malone
Environmental Department Director
Waste Regulatory and Compliance Department
Navajo Nation Environmental Protection Agency
P.O. Box 339
Window Rock, AZ 86515

Subject:

No Further Action (NFA) for the Release from the Two Leaking USTs at

the Seven-2-Eleven Food Store in Many Farms, AZ (NAV-178)

Dear Ms. Malone:

The U.S. Environmental Protection Agency (EPA) has completed the review of the "Annual Groundwater Monitoring Report for the 7-2-11 Food Store #24 in Many Farms, Arizona," dated July 18, 2013. Advanced Corrosion and Environmental Services, LLC (ACES) prepared the report for the facility owner- United Food Store #1 of Farmington, NM. The report described the groundwater monitoring activity and the application of oxygen release redox compound (EHC-O) to cleanup residual soil contamination. Based on the results of the three consecutive groundwater monitoring events and the treatment of the residual soil contamination, ACES recommends that No Further Action (NFA) be considered for this site.

### **Background**

Two bare steel underground storage tanks (USTs) with galvanized piping were installed in 1973 at the 7-2-11 Store in Many Farms. The USTs had a capacity of 8K gallons for diesel and 12K gallons for gasoline. In November 1998, an impressed current system was added to conform to the 1998 upgrade requirements for cathodic protection for steel tanks.

The owner decided to remove the two steel USTs in 2003 and replaced them with fiberglass reinforced plastic (FRP) UST system in 2004. The 7-2-11 Food Store continues to operate to date with a new updated fueling system, which includes three double-wall FRP tanks (15K-, 8K-,and 6K-gallon) and piping.

The UST removal report, dated September 5, 2003, described the activities conducted at the site during the removal of the two USTs. Analytical results for soil samples collected underneath the 12K-gallon gasoline UST indicated levels above the NNEPA cleanup standard for TPH-GRO, benzene and xylenes. Groundwater depth was at 42 feet below ground surface (bgs) and was not encountered during the site assessment.

Part of the excavated soil was backfilled into the excavation to protect the building foundation after the 8K-gallon tank was removed from its position partially underneath the building foundation. A total of 82 cubic yards of contaminated soil was disposed offsite for remediation.

## **Groundwater Monitoring and Soil Treatment**

As part of the site assessment to determine the extent of contamination, four monitoring wells (MWs) were installed in 2004 within and around the periphery of the excavation. MW-1, underneath the UST excavation, indicated ground water contamination for MTBE and benzene at levels above the NNEPA cleanup standard. Groundwater monitoring from November 2004 to November 2006 indicated increasing levels of MTBE and decreasing levels of benzene in MW-1. Sampling in September 2009 before the wells dried up indicated MTBE level was below cleanup standard and benzene was non-detect. Water at all MWs had dried up due to the continuing drought by August 2011.

In 2010 a deeper monitoring well (MW-5) was installed next to MW-1. The new well intersected ground water at 43 feet bgs. Analytical results for MW-5 from Dec 2010 indicated benzene at 7.8 ppb and MTBE was non-detect. Subsequent sampling for three consecutive years (2011-2013) indicated ND's for all chemicals of concern.

Concurrently, in July 2013, the EHC-O slurry, a high oxygen release compound was injected in MW-1, MW-4 and in a vapor well adjacent to MW-5 inside the center of the former tank excavation. The EHC-O stimulates aerobic biodegradation of residual soil contamination through controlled release of oxygen and delivery of nutrients.

#### Recommendations

EPA Region IX has discussed and reviewed the report findings with Mr. Henry Haven of the NNEPA and after several discussions Mr. Haven has concurred that this site be closed without additional action. However, if additional information becomes available in the future regarding hydrocarbon contamination in soil and/or groundwater at this site, EPA or the NNEPA may reopen this site and require additional site assessment and/or corrective action.

If you have questions regarding the information contained in this letter, please contact Walt Guggenheimer of my staff at 415-972-3377 or Henry Haven of the NNEPA at 928-871-7997.

Sincerely

Steven C. Linder, Program Manager Underground Storage Tanks Program Office

Henry Haven, NNEPA Warren Roan NNEPA Mr. Alan Frazer, United Food Stores #1 Al Chaharlang, ACES Site File NAV-178