

CSID 3852

NFA

WORKSHEET 1 SUMMARY SCORE SHEET

Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):

PIERCE COUNTY FIRE STATION 15
TAX PARCEL #0417192036
5403 340th STREET EAST
EATONVILLE
PIERCE COUNTY, WA, 98328

TCP ID: S-27-6243-000
T-17N R-4E Section-19
Latitude: 46° 56' 51.34"
Longitude: 122° 19' 48.24"

Site assessed for August 31, 1999 Update.

Site Description (Include management areas, substances of concern, and quantities):

Site Description/History:

The subject site, Pierce County Fire Station #15, is located in an outlying area of Unincorporated Pierce County. The site occupies approximately one acre and is situated at the southeast corner of the intersection of Mountain Highway East and 340th Street East. The fire station is served by an on-site well which is a group B water system. The well head for the system is located within the station structure and the well is reported to be 60 feet deep. The station constitutes the only connection to the system.

On February 17, 1993, the environmental consulting firm of Marsh Industrial Research removed and replaced two 550 gallon underground storage tanks (USTs) at the site. These tanks were replaced to satisfy the Environmental Protection Agency's (EPA's) mandated requirements to upgrade UST's. According to file data, the tanks that were removed had initially been installed in a common pit at the fire station in 1983. Also, at the time of the removal, the pumps, tanks and piping all appeared to be sound and there was no visual signs that leakage had occurred to the site soils. Based on the confirmational laboratory analysis data, from six soil samples that were collected during the upgrade process, diesel, gasoline, BTEX and lead were all reported to be below their respective Model Toxics Cleanup Act (MTCA) Method "A" (residential) Cleanup Levels. On September 22, 1993, the Tacoma-Pierce County Health Department's (TPCHD's) UST program determined that the site had satisfied the MTCA Cleanup Regulation and the site file was officially closed.

On May 5, 1994, the TPCHD was notified that the on-site drinking water well had been tested and that the analytical results reported concentrations of benzene and xylenes above their respective MTCA Method "A" (groundwater) Cleanup Levels. Benzene was reported at 30 parts per billion (ppb) and xylenes were reported at 44 ppb. Based on this information, the TPCHD conducted a site inspection of the facility on May 6, 1994. During the inspection, the TPCHD confirmed that solvent related odors were present in the water from the kitchen tap. As a result, the TPCHD collected another water sample and had it analyzed for benzene, toluene and xylenes (BTX) at the Water Management Laboratories in Tacoma. The analytical results reported at a concentration of 6.7 ppb for benzene. In June and July 1994, the fire station and the Ohop Grocery store (less than 100 feet away) both tested their wells for volatile organic compounds (VOCs). The sample analysis results from the fire station reported concentrations of benzene and xylenes at 13.6 ppb and 24 ppb respectively. BTEX and gasoline compounds were reported at non-detect concentrations from the Ohop Grocery store's well system.

Based on the above referenced information, the TPCHD contacted the Washington State Department of Ecology (Ecology) and the Pierce County Fire Commissioners (PCFC) and requested that immediate action be taken to correct the situation. On October 15, 1994, the PCFC responded to the TPCHD's concerns by notifying the

Department that they had initiated a plan to purge the well of 5,000 gallons of water daily for ninety consecutive days. At approximately the same time, the breather tube for the well pump was discovered to be situated within inches of a parts-washing bath that consisted of solvent related fluids. Consequently, the parts washing machine was also removed from the facility.

Approximately thirty days into the purging process, in November 1994, the well was again analyzed for BTEX compounds. Based on the analytical results, all the BTEX compounds were reported to be non-detect. On January 11, 1995, the TPCHD collected a sample from the well and had it analyzed for BTX. Based on the results of the January 11, 1995 laboratory analysis data, all three BTX compounds were again determined to be non-detect.

Based on the above referenced information, in mid - January, 1995, the fire station ceased their well purging activities. The TPCHD strongly recommended that another sample round be conducted but it does not appear that it was ever performed. Rather, on November 3, 1995, a water chlorinator was installed at the site. The water chlorination system was approved by the TPCHD on December 21, 1995.

On July 18, 1996, the site was added to Ecology's Site Information System (SIS database), of known or suspected contaminated sites and recommended for a Site Hazard Assessment (SHA).

The SHA was initiated by the TPCHD in early 1999 to fulfill data requirements for subsequent scoring/ranking of the site under the Washington Ranking Method. Due to the lack of follow-up sampling data present in the site file, the SHA Program determined that a follow-up site sampling event would be necessary.

The SHA sampling event was a joint effort conducted by Ecology and the TPCHD on March 24, 1999. During the sampling event, the TPCHD and Ecology observed several bottled drinking water dispensers at various locations around the facility. According to the station chief, Mr. Dennis Chafe, the well water had only been used for alternative purposes, such as showers and truck washing activities since the chlorination system was installed in 1995. During the site visit, several water samples were collected from the kitchen tap and later submitted to Sound Analytical Services in Tacoma. The samples were analyzed for VOCs by the USEPA method 524.2 Modified and for TPH concentrations using the NWTPH-Dx testing method. Based on the SHA laboratory analysis results data, petroleum and BTEX compounds were reported at non-detect concentrations. The VOC analysis did however, detect relatively low concentrations of two trihalomethanes (THM). The THMs detected were chloroform at 6.2 ppb and bromodichloromethane at 1.4 ppb. These THMs are a common by-product of the chlorination disinfection process. Total THMs were 7.6 ppb. This is well below the current Washington State Department of Health (WDOH) action level of 100 ppb for total THMs.

On the basis of this SHA, the Tacoma-Pierce County Health Department recommends that this site receive no further action (NFA) under MTCA, based on its documented insignificant threat to human health and the environment. This is based on the results of this and previous site investigations and assessments, the completed site remediation, and the analytical testing results for the SHA samples collected from the drinking water system.