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DEPT. OF ENVIRONMENTAL CONSERVATION

Northern Regional Office
610 University Avenue, Fairbanks, AK 99709-3643

NRO File: 102.26.044

January 6, 1995

FILE

Mr. Larry Walker
Fairbanks Motors
3775 South Cushman Street
Fairbanks, AK 99701

Re: Underground Storage Tank Removals
Contaminated Soil Remediation And Closure
Fairbanks Motors, 3775 South Cushman Street

Dear Mr. Walker:

The Alaska Department of Environmental Conservation (ADEC) has received and reviewed the following reports in order to consider your request for no further action at the subject site.

1. August 28, 1991, "Underground Storage Tank Permanent Closure," prepared by A.G. Midland Company, Inc.

2. September 1994, "Summary Report Additional Site Assessment Fairbanks Motors," prepared by AGRA Earth and Environmental, Inc.

3. Closure Class V Injection Well reports received from EPA and AGRA on December 19, 22 and 27, 1994.

Review of the above reports and documents indicated there were two 1000-gallon underground storage tanks (USTs) removed on September 27, 1991 by A.G. Midland Company, Inc. One UST contained unleaded gasoline while the other UST contained waste oil. After removal of the USTs, the excavations were lined and the contaminated soils were replaced in the pits. A Site Assessment was conducted during excavation of the USTs. A Release Investigation was to be conducted in the spring of 1992.

During the Site Assessment, soil samples were collected and analyzed from the gasoline and waste oil UST areas. The following are the highest levels obtained:

Location	GRPH (ppm)	DRPH (ppm)	TPH (ppm)	BENZENE (ppm)	ETHYL-BENZENE (ppm)	TOLUENE (ppm)	XYLENES (ppm)
GASOLINE	250			0.13	0.60	0.42	16
WASTE OIL		620	7,860				

Gasoline Range Petroleum Hydrocarbons (GRPH), Diesel Range Petroleum Hydrocarbons (DRPH), Total Petroleum Hydrocarbons (TPH) and Benzene exceed ADEC cleanup levels. Levels would have been higher and possibly more analytes would have been detected, had it not been that these samples were: (1) subjected to excessive holding times, (2) inappropriate sampling procedures, not in accordance with 18 AAC 78, in that sampling was not done at two feet below the lowest point of the gasoline UST dispensing equipment and piping, (3) sampling containers were opened to determine water content followed by several days when testing for volatiles were conducted, (4) lack of appropriate waste oil analysis in accordance with 18 AAC 78.315 (g), (5) questionable chain of custody and (6) lack of field quality control samples. These are violations of one's ADEC-approved Quality Assurance Program Plan.

On August 10 and 11, 1994, AGRA Earth and Environmental, Inc. conducted additional site assessment work, removed the contaminated soils from the 1991 lined excavation pits, over-excavated each pit to remove impacted soils and thermally remediated those contaminated soils exceeding ADEC cleanup levels. Briefly, the following activities were accomplished for closure:

GASOLINE UST

All samples were tested for GRPH, DRPH, BTEX (Benzene, Toluene, Ethylbenzene and Xylenes), Halogenated Volatile Organics (HVOs) and total Lead. Methods utilized were AK 101, EPA 8100M, 8020, 8010 and 6010, respectively. Three samples were taken from the base of the excavation at 8 feet below ground surface (bgs). The highest levels obtained were GRPH, 3 ppm, and Benzene, 0.07, ppm. Two samples were taken from the soil stockpile. The highest levels obtained were GRPH, 14 ppm, and BTEX, 89.1 ppm, with Benzene not detected (ND).

Approximately 30 cubic yards of contaminated soil was excavated from the former gasoline UST area. Nine cubic yards were thermally treated to a level A cleanup concentration and approximately 19 cubic yards were over-excavated and spread on the site, given that GRPH, Benzene and BTEX levels did not exceed ADEC cleanup levels.

WASTE OIL UST

All samples were tested for the same contaminants utilizing the same methods as stated for the gasoline UST. Three samples were taken from the base of the excavation at 8.5 feet bgs. The highest levels obtained were DRPH, 64 ppm, GRPH, 1.1 ppm, and Lead, 27.4 ppm. Two samples were taken from the soil stockpile. The highest levels obtained were DRPH, 295 ppm, and Lead, 17.3 ppm.

STAINED SOIL

This area was located in the waste oil UST south sidewall area. This was a two-foot wide vertical strip extending from the surface to approximately 5.5 to 6 feet bgs. One sample was taken and analyzed for the same contaminants as for the waste oil UST utilizing the same methods. The DRPH concentration was 2180 ppm and there was 0.04 ppm Tetrachloroethylene detected. Further excavation ceased due to jeopardizing the foundation of the building.

Forty cubic yards were over-excavated from the former waste oil UST area. These soils were thermally treated to a level A cleanup concentration.

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CONCLUSIONS

Sample results indicate the gasoline and waste oil excavation pits have contaminants below ADEC cleanup levels. The contaminated soils from these excavation pits which were above ADEC cleanup levels were remediated to level A concentrations.

It has been recommended that the area of the former USTs be paved over with good quality pavement material. This will act as a waterproof seal and containment of the remaining soil contaminants, especially at the foundation of the building.

Based on efforts made in 1994 to conform to regulations under 18 AAC 78, it is the position of the ADEC that no further action (NFA) is appropriate at the subject site. As such, the file on this site will be transferred to inactive status. This NFA is based upon a limited number of soil samples and analyses. Additionally, the values obtained may not have been the highest values at this site. Our conclusion is drawn only for samples taken from the immediate location of the USTs and the area where remediation activities were conducted. The Department reserves the right to reopen investigation of the above site should further evidence of contamination be revealed or suspected by environmental evidence.

COMMENTS

It is recognized that Lead background levels near the site are 10 to 20 ppm and that the levels obtained from the waste oil UST area were not sufficiently high to be concerned. However, based on the depth at which Lead levels were obtained, it would have been appropriate to have excavated 6 inches deeper and sampled at the interface. This would have confirmed whether Lead had/had not migrated to the ground water in levels that may cause future concern.

In the future, we will be working cooperatively with EPA on all Class V injection well sites. This site happened to be the beginning of this cooperative effort. We apologize for any misunderstanding that this has caused.

The use of an UST as an aboveground storage tank (AST) is not recommended. USTs gain their strength from the backfill underground and are not designed for use as an AST.

Should there be a future need to correspond about this site, please refer to the NRO file number at the top of this letter. Thank you for your past cooperation and, should there be additional questions, please feel free to call me at (907) 451-2166.

Happy New Year!

Sincerely,

Eleanor Hung

Eleanor Hung
Environmental Specialist

EH:jg (h:\eq\nado\fbkmotor)
cc: Steve Bainbridge, ADEC/Fairbanks
Bonnie Bladow, ADEC/Anchorage
Jonathan Williams, EPA/Region X/Seattle
Larry Peterson, AGRA/Fairbanks