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DIVISION OF WATER QUALITY
Groundwater Section
June 6, 1997

C70 303

MEMORANDUM

TO: Arthur Mouberry

THROUGH: Rick Shiver RSS

FROM: Charles Stehman CS

SUBJECT: Additional Comments-Remedial Investigation Report **and** Draft Feasibility Study
Operable Unit No. 6, Site 54
Marine Corps Base-Camp Lejeune
Onslow County

Site Summary:

Operable Unit 6, site 54 is a 1.5 acre site located near the southwest end of runway 5-23, within the operations area of MCAS, New River. This site is referred to as the Crash Crew Fire Training Burn Pit. The burn pit is located in the center of the site and is around 50 feet in diameter. The site is used for fire training exercises and has served as a fire training burn pit since the mid-1950's. Initially waste fuels, oils and solvents were used to simulate fire conditions that would result from aircraft crashes. The fire training exercises were conducted on the ground within a bermed area. In 1975, a lined burn pit was constructed and is currently in operation today. Now the base uses only JP type fuels for training exercises. There is an 8,000 gallon underground storage tank (UST), used for storage of the JP-type fuel, located northwest of the burn pit. There is an oil and water separator located 100 feet to the southeast of the burn pit for temporary storage and collection of spent fuel. Two drainage ditches, which are for surface water runoff, lead away from the burn pit, down the sides of an unimproved gravel road. Initial investigations conducted at the site showed low levels of petroleum contamination in soils and groundwater. Further characterization of the site contamination was recommended.

A field investigation was conducted in 1995, which included soil, sediment, and groundwater sampling. None of the surface soil samples showed VOC's. Two subsurface soil samples showed xylenes at 12 and 300 ug/kg. The xylenes are believed to be due to a single incident not related to long term operations. Acetone and five semivolatile compounds were identified in sample DD-SB05, 400 feet south of the burn pit. Similar detections of semivolatile compounds were found in samples obtained from the drainage ditches which act as conduits for surface water run off from the burn pit. It is believed that the southern boundary contamination and drainage ditch contamination are most likely due to previous and ongoing burning exercises. Several surface soil samples to the south of the burn pit contained semivolatiles. Some samples submitted had limited metals contamination.

Groundwater samples obtained from wells adjacent to the burn pit and UST location or southwest of the burn pit contained both volatile and semivolatile contamination. The highest VOC was total xylene at 130 ug/l in 54-TW03. No volatile or semivolatile compounds were detected in the deeper well (54-GW08).

Air Quality Comments:

No comments were received from the Air Quality Section.

Water Quality Comments:

No comments were received from the Water Quality Section.

Groundwater Comments:

Original comments for these reports were made on December 5, 1996. At the request of the Marine Corps Environmental Division, a meeting was held at the Wilmington Regional Office May 28, 1997 to discuss the sites within Operable Unit No. 6. During the meeting remedial action alternatives discussed in the feasibility study for site 54 were discussed. At this time Division representatives found RAA-3: natural attenuation with operational controls to be an acceptable approach for corrective action at the site. Other comments resulting from the meeting are as follows:

The extent of the soil contamination at the site would appear to be sufficiently delineated.

The extent of groundwater contamination at the site needs further delineation. Based on data and maps provided, there is an area down gradient to the south west of the burn pit, and wells TW03 and TW02, which appears to have a hole in the delineation. Wells TW03 and TW02 show volatile and semivolatile groundwater contamination in excess of State 2L standards. As discussed in the May 28, 1997 meeting with the representatives from the Marine Corps and Baker Environmental, one additional well should be placed down gradient of this location in between wells 54-GW01 and 54-GW05. This will determine if any contamination which has been detected at TW03 and TW02 is moving down gradient on the site, but may not have been detected due to the current well configuration. In addition, one new well will be placed at the leading edge of the plume on the western side of the site.

Should you have questions, please do not hesitate to contact Diane Rossi or myself at (910) 395-3900.

RSS/CFS/CDR/gjg
cc: David Lown, Superfund Section
WiRO-GWS

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