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LETTER REGARDING REQUEST FOR ASSESSMENT REPORT FOR HOBSON FUEL FARM
AND VIADUCT ROAD LEAK CNC CHARLESTON SC
01/30/1995
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

January 30, 1995

R.L. Laney
Director, Occupational Safety,
Health and Environmental Office
Department of the Navy
Naval Station
Charleston, SC 29408-5000

RE: Charleston Naval Base
Fuel Leak, Hobson Avenue and Viaduct Road
GWPD Site #A-10-AA-16929
Leak Verification Report received October 26, 1994
Charleston County

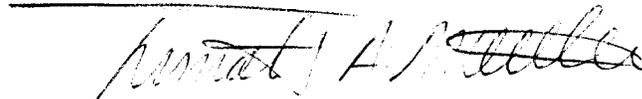
Dear Mr. Laney:

The Ground-Water Protection Division (GWPD) of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the referenced Leak Verification Report and has the following comments:

- 1) The contaminant appears to be virgin fuel oil that was present in an abandoned pipeline from the Chicora Tank Farm. Since the contaminate is fuel oil, the GWPD of the SCDHEC will provide regulatory oversight for this project. Therefore, please address all future correspondence concerning this project directly to the GWPD.
- 2) Available information indicates fuel oil leaking from a corroded line has impacted soil and groundwater. The GWPD requests that an assessment plan, to determine the extent and severity of soil and ground-water impact to the environment, be submitted to the GWPD for approval. This plan should include the installation of, at a minimum, three permanent monitoring wells to determine ground-water flow direction. An assessment guidance document has been enclosed for your review.

The requested assessment plan should be submitted on or before March 31, 1995. On all future correspondence concerning this site, please reference GWPD Site #A-10-AA-16929. If you have any questions, please contact me at (803) 734-5328.

Sincerely,



Timothy A. Mettlen, Hydrogeologist
Assessment and Development Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

tam/cnbleak.via

cc: Christine Coker, Trident District EQC
Joe Bowers, BSHWM
David Walton, BSHWM



DEPARTMENT OF THE NAVY

CHARLESTON NAVAL SHIPYARD
CHARLESTON, S.C. 29408-6100

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Ser 106.24/0341
19 OCT 1994

South Carolina Department of Health
and Environmental Control
Ground Water Protection Division
Attn: Tim Mettlen
2600 Bull Street
Columbia, South Carolina 29201

RECEIVED

OCT 26 1994

Groundwater Protection
Division

Re: Fuel leak at Hobson Ave. and
Viaduct Rd., Charleston
Naval Base, Charleston, SC

#12094
LI
LO

Gentlemen:

This office is forwarding leak verification information on a leaking underground fuel line located near the intersection of Hobson Ave. and Viaduct Road on the Charleston Naval Base, Charleston, S.C. As required by South Carolina Law R.61-95, Section 280.50, verbal notification of the leak was made to Wayne Fanning of the Trident District Office on September 19, 1994.

Enclosure (1) contains the leak verification information and the initial abatement actions taken as required by S.C. Law R.61-95, Section 280.52, 62(b).

If there are any questions or if more information is needed, contact Karl Ray or Tim Martin, Code 106.24, at (803) 743-5519.

Sincerely,


R. L. Laney
Director, Occupational Safety,
Health and Environmental Office
By direction of the Commander

Encl:
(1) Leak Verification Information

Copy to:
Wayne Fanning, Trident EQC

#16979

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OCT 21 1994

BUREAU OF
AIR QUALITY CONTROL

Leak Verification Information

I. Verify Leak

Tank Owner - United States Navy

Contact Person - Bill Brasel, CNSY Code 106.2,
(803) 743-5519

Tank Location

Chicora Tank Farm
Charleston Naval Base
Charleston, SC

II. Leak Details

1. **Leak discovery** - Oil was reported to be in roadway at the intersection of Hobson Ave. and Viaduct Road during heavy rains on September 18, 1994. The oil was found to be entering the storm drains from around piping connections into manholes then floating into the road through street drains. The actual source of the leak, an 18" abandoned pipe line, was not determined until October 1, 1994. None of the oil reached the river because storm drain was blocked.

2. **Specify type and quantity of substance lost** - The product was determined to be a diesel fuel oil #4 - #6. The exact quantity released is unknown but, approximately 40,000 gallons of oil/water mixture (mostly oil) was recovered.

3. **Location of leak** - The leak was determined to be from an abandoned 18" pipe line that originated at the Chicora Tank Farm and terminated at the valve pit located on the corner of Hobson Ave. and Viaduct Road. The pipe was approximately 20 feet below ground.

4. **Cause** - Corrosion due to damaged coating on pipe and leak-by at isolation valve causing abandoned line to recharge over time.

III. Corrective Action Taken in Response to Leak

1. When the oil was first observed on the evening of September 18, 1994, the product was cleaned up by Shipyard response crews. The source of the oil was not known at this time. Approximately 2,000 to 5,000 gallons of oil/water mixture was recovered.

Leak Verification Information

2. On September 19, 1994, Mr. Wayne Fanning, of the Trident District Office, was contacted to report the release and he visited the release site. Mr. Fanning recommended continued investigation into the source of the release.

3. Initial attention was given to several active fuel transfer lines in the immediate vicinity of the release. These lines had recently been used to perform transfers. Pressure tests were performed on the lines and indicated no leakage. Samples taken identified the product as diesel fuel oil #4 - #6 and this type of fuel is not presently being used at this facility.

4. Excavation of the abandoned 18" pipe from Chicora Tank Farm began on September 29, 1994. Mr. Fanning visited the site again to check on the progress of the excavation. The removed soil was stockpiled on plastic for placement back into the hole. The pipe was pressure tested and evidence of leakage was seen on the ground surface. On October 1, 1994, further excavation exposed a hole in the pipe where the pipe depth was approximately 20 feet below ground surface. The hole was repaired using a coupling clamp. The pressure test was redone and evidence of leakage was still seen on the ground surface. At this point, the hole was back-filled due to forecasted heavy rains and compromised integrity of an adjacent berm for a four million gallon above ground fuel tank. A two to three feet deep depression was left to retain any free product that mitigated to the surface. Also, a berm was built around the area to prevent storm water from entering or leaving area.

5. On October 4, 1994, the 18" pipe was flushed from Chicora Tank Farm to a barge using approximately 400,000 gallons of fresh water. Then a backflush was done from the Naval Base to the Chicora Tank Farm. Approximately 500,000 gallons of fresh water was used in the flush of the pipe. According to the drawings for the 18" pipe, its capacity was approximately 34,000 gallons.

6. The free product was pumped into tankers then into barges for future reclaim. Approximately 40,000 gallons of oil/water mixture (mostly oil) has been recovered to date.

7. 100 cubic yards of petroleum saturated soil has been removed and disposed of in a Class B landfill. Clean fill was brought in to repair the fuel tank berm and build a berm around entire area to control storm water runoff.

Leak Verification Information

8. To continue free product recovery, ten to fifteen 5' lengths of 10" or 12" PVC pipes, with perforations in them, will be installed and gravel will be placed around the pipes to increase the hydraulic conductivity. The PVC pipes will be pumped weekly or biweekly as needed as an interim compliance measure for free product recovery and abatement due to continued threat of heavy rains causing hydraulic uplift at site (low lying area). This effort will continue until the site is fully characterized and remediated under the South Carolina Underground Storage Tank Control Regulations. This area is also adjacent to Area Of Concern (AOC) # 627 as identified in Charleston Naval Shipyard's RCRA Facility Investigation Plan.