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MCRD PARRIS ISLAND  
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LETTER REGARDING SOUTH CAROLINA DEPARTMENT OF HEALTH AND  
ENVIRONMENTAL CONTROL COMMENTS ON DRAFT REMEDIAL INVESTIGATION  
VERIFICATION STEP MCRD PARRIS ISLAND SC  
1/31/1989  
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

10054

# South Carolina Department of Health and Environmental Control

2600 Bull Street  
Columbia, S.C. 29201

Commissioner  
Michael D. Jarrett



January 31, 1989

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Cal Garnett, Jr.  
MCRD Parris Island  
Bldg. 154  
MCRD, Beaufort, SC 29905

Re: MCRD Parris Island  
Draft Remedial Investigation, Verification Step dated  
August, 1988  
Beaufort County

Dear Mr. Garnett:

The South Carolina Department of Health and Environmental Control (DHEC), Ground-Water Protection Division (GWPD), has been providing technical review and comment on Department of Defense Installation Restoration Program (IRP) ground-water investigations at military bases in South Carolina that have on going IRP investigations.

The referenced report was not submitted to this office upon completion, but was sent upon request in October, 1988 from Mr. Dick Byrd, Southern Division. Thank you for providing a copy of the report for Departmental review. It is recommended that the GWPD be included in all phases of this IRP project in the future. This will help insure that our technical review can be completed in a timely manner, and that coordination with the EPA and DHEC's Bureau of Solid and Hazardous Wastes Management will not be affected.

The following comments are provided:

- 1) The method detection limit should be used as the lower limit for all soil and ground-water analyses. In some cases the maximum contaminant level (MCL) or maximum contaminant level goal (MCLG) is less than the lower limit reported with the submitted analytical data. For example, the following parameters have a higher "detection limit" than their respective MCL's or MCLG's:

<u>Parameter</u>	<u>Detection Limit Reported</u>	<u>MCL/MCLG</u>
Carbon tetrachloride	10ppb	5ppb/0
1,2 - Dichloroethane	10ppb	5ppb/0

Trichloroethylene	10ppb	5ppb/O
Vinyl chloride	10ppb	2ppb/O

Allan Crane (General Engineering Laboratories), stated in a phone conversation on December 28, 1988 that analysis using the method detection limit should be possible using the existing information on file. The revised analyses should be included in the final RI Verification Step Report.

- 2) A potentiometric map should be included for each site with three or more ground-water elevation points.

#### Site 1 - Incinerator Landfill

The recommendation to further evaluate the depth and extent of chloroform in the soils, and evaluate ground-water quality at greater depth is approvable. Additional investigation to determine the extent of contamination due to elevated total oil and grease (481 ppm in well GW-2, specific conductivity in excess of 10,000 umos/cm in wells GW1, GW2, GW3) is necessary. Possible impact on the ground-water due to the heavy metals detected in the soil samples should also be addressed.

#### Site 2 - Borrow Pit Landfill

The recommendation to further evaluate the presence of lead, cadmium, and chromium in the surface and/or ground-water as well as chloroform and 1,2-dichloroethane is approvable.

#### Site 3 - Causeway Landfill

When review of the re-calculated analytical data (per paragraph 1) is completed, a determination on omitting this site from further investigation can be made. The presence of heavy metals in the soil and surface water samples may indicate the need for continued monitoring.

#### Site 4 - Dredge Spoils Area Fire Training Pit

The recommendation to drop this site from further evaluation at this time is not approvable. Soil samples should be obtained inside the fire training area for analysis.

#### Site 6 - Former Automotive Hobby Shop

The recommendation to drop this site from further evaluation at this time is not approvable. Soil sample analyses indicate total oil and grease levels of 310 ppm to 462 ppm, and chromium

and lead above detection levels. The extent of the soil contamination detected should be determined.

#### Site 16 - Pesticide Rinsate Disposal Area

The recommendation to further evaluate the depth and extent of subsurface soil contamination by DDT, DDE, and DDD, and to evaluate the ground-water quality is approvable.

#### Site 17 - Page Field Tanks (AS-16)

The recommendation to further evaluate this site for verification of closure when the underground storage tanks are removed is approvable. If the activity does not wish to proceed with closure/investigation under the N.I.R.P. Program, a letter requesting that this site be handled by the DHEC Underground Storage Tank program must be forwarded to: Raymond Knox, Manager, Trust Section, GWPD.

#### Site 18 - Page Field Tanks (AS-18)

The recommendation for a detailed soil vapor survey, additional monitor wells, and the verification of closure for possible tank removal is approvable.

#### Site 19 - MCX Service Station

The recommendation to further evaluate this site is approvable. Since the station is no longer operational, tank removal using the appropriate closure procedures (and regulatory program) is advisable.

#### Site 7 - Page Field Fire Training Pit

Site 7 was not included in the referenced report as agreed in the April 28, 1987 meeting with EPA and DHEC. This site should be included in the investigation.

#### Daylight Infiltration Course

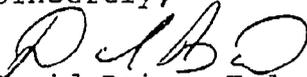
The analysis of ground-water samples from the two downgradient monitor wells (GW-1, GW-2) did not indicate a ground-water impact from TNT or RDX. However, field analyses wells GW-1 and GW-2 indicate specific conductivities of >10,000 umhos/cm and 3,800 umhos/cm, respectively. The source of these high conductivity levels should be determined. The re-sampling of all three wells for TOC, TDS, nitrate, nitrite, ammonia, and any other appropriate parameters is recommended.

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Additional soil analyses may be appropriate to explain the discrepancy between the analytical results from the OES report (up to 89 ppm RDX, 81ppm TNT) and the McClelland investigation. (no RDX found above detection limits, TNT at 40 ppb).

If you have any questions, please call me at 734-5329.

Sincerely,

  
David Baize, Hydrogeologist  
Assessment and Development Section  
Ground-Water Protection Division  
Bureau of Drinking Water Protection

DB/lr  
A:MCRD.TXT

cc: Victor Weeks  
US EPA Region IV

George Nelson  
Low Country District EQC

Harry Mathis  
Bureau of Solid and Hazardous Wastes Management

Dick Byrd  
Southern Division