

01.01- 1/22/99-02368 DUP



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT

January 22, 1999



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

Commander, Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attention: Ms. Katherine Landman
Camp Lejeune RPM
Code 18232

Commanding General
PSC Box
Marine Corps Base
PSC Box 20004
Camp Lejeune, NC 28542-0004

Attention: AC/S, EMD/IRD

RE: NC Division of Waste Management Comments
Final Confirmatory Sampling Report Dated October 1998
Marine Corps Base, Camp Lejeune

Dear Ms. Landman:

Attached are the comments of the Superfund and Hazardous Waste Sections on this document. We would welcome an opportunity to discuss these comments with your contractor, before their formal response. Please call me at (919) 733-2801, extension 278 if you have any questions.

Sincerely,

David J. Lown, LG, PE
Geological Engineer
Superfund Section

Attachments

cc: Gena Townsend, US EPA Region IV
Neal Paul, MCB Camp Lejeune

NC Superfund Comments
Final Phase I SWMU
Confirmatory Sampling Report
Dated October 15, 1998

General Comments:

1. Arsenic was detected above the Region III RBC at several SWMUs. Additional research and sampling should be designed to determine the source of the arsenic. Is it SWMU- related or a basewide background? Is the background natural or man-made?
2. Only one groundwater monitoring well is being proposed at several SWMUs. Depending on site-specific data, additional wells may be necessary before all work on the SWMU can be completed.

Specific Comments:

1. SWMUs 53 and 296 - Coal Storage Area and Coal Runoff Collection Basin. Arsenic was not detected above the S3:G1 screening level, sampling of groundwater for arsenic is not necessary.
2. SWMU 255 - Building 1502 Oil/Water Separator. PAHs were detected in a concrete lined drainage ditch, above the S3:G1 soil screening levels. Additional sampling of sediments downstream of the SWMU may be necessary. Screening criteria should probably be based on sediments, not soils.
3. SWMU 258 - S1745 Oil/Water Separator. VOCs were detected in subsurface soils at greater than the S3:G1 screening level. Additional investigation is needed.
4. Section 4.10 SWMUs 260 Need to correct title. SWMU designations do not follow text or map.
5. SWMU 261 - 1780-A UST. VOCs, 1,1,2-trichloroethane and chloroethane, are slightly above the S3:G1 in one surface soil. Additional soil sampling is proposed. If additional soil sampling shows that greater than 0.5 acres of soil is contaminated at greater than the S3:G1 screening level, then the groundwater sampling is needed. (A half acre is assumed in the screening level calculation. See the USEPA Soil Screening Level documentation for more information.)
6. SWMU 280 - FC285 Aboveground Storage Tank. Arsenic was detected well above the Region III RBC. Additional work is needed to determine the extent of contamination.

NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

DIVISION OF WASTE MANAGEMENT



JAMES B. HUNT JR.
GOVERNOR

WAYNE McDEVITT
SECRETARY

WILLIAM L. MEYER
DIRECTOR

MEMORANDUM

To: David Lown
Superfund Section

From: Patrick Watters *Patrick Watters*
Hazardous Waste Section

Subject: Comments on Camp Lejeune's Final Confirmatory Sampling
Report dated October 1998.

Date: January 20, 1999

I have completed my portion of the review of the Confirmatory Sampling Report referenced above. My comments are attached. If there are any questions about this, please call me at extension 240.

Enclosure

rc: Kathleen Z. Lawson
Peter L. Doorn
Jill E. Burton

C:\wpfiles\melodi\jpw\csr-rev1.wpd

MCB Camp Lejeune
Final Confirmatory Sampling Report
dated October 1998

1 - Soil Background Values

A review of the background data for arsenic in the surface and subsurface soil suggest that some of the data may have come from contaminated areas. Soil data from Sites 80 (Paradise Point Golf Course Maintenance Area), Site 7 (Tarawa Terrace Dump) and Site 16 (Montford Point Burn Dump) show arsenic at levels above most of the other background data. Site 80 for example was a Superfund site with significant arsenic contamination, therefore it may be appropriate to eliminate at least the Site 80 data from the background calculation.

It is recommended that MCB Camp Lejeune statistically review all of their background data to determine if they are representative of background conditions. Statistical testing (i.e. Normality, etc.) may be helpful to establish whether or not the data is representative of background conditions.

2 - SWMU 53 - Coal Storage Area

There was one detection of benzo(a)pyrene (100 ug/Kg) at location SWMU53-IS04-00 which is above the EPA Region III Residential Soil Screening Level. The recommendations for this SWMU do not include any follow up soil samples for benzo(a)pyrene. Follow up soil sampling is however planned for an adjacent SWMU (256) which also had detections of benzo(a)pyrene above the Region III Residential Soil Screening Level. Additional soil samples are needed to define the extent of the benzo(a)pyrene contamination at SWMU 53.

3 - SWMU 46 - Former IR Site No. 15, Montford Point Dump

In addition to the recommendation to collect groundwater and soil samples for lead at location SWMU46-IS02, the soil samples should also be analyzed for arsenic. In addition, soil samples need to be taken to define the extent of arsenic contamination at location SWMU46-IS03.

4 - SWMU 254 - 1408 Dumpster

The recommendations indicate that the soil and groundwater samples will be analyzed for arsenic. Since arsenic was detected at levels less than two times background and much less than the soil to groundwater transfer screening level it does not have to be included on the analyte list for these samples.

5 - SWMU 255 - Building 1502 Oil/Water Separator

Section 4.8.3 on Page 4-24 states that the surface soil background value for arsenic is 1,322 mg/Kg. It should be 1.322 mg/Kg.

6 - SWMU 258 - S1745 Oil/Water Separator

The VOC detections in the soil samples are high enough to warrant an additional investigation.

Additional soils samples need to be taken to confirm the presence of VOCs (including acetone) at this SWMU.

7 - SWMU 272 - AS137 Oil/Water Separator

There was one detection of mercury above twice the base background at location SWMU272-IS03. The additional soil samples taken for this location need to be analyzed for mercury.

8 - SWMU 280 - FC285 Aboveground Storage Tank

The extent of the arsenic contamination needs to be assessed before we can evaluate whether the asphalt parking lot provides adequate protection from contact with the soil.

9 - SWMU 293 - 1106/1107 Oil/Water Separator

Lead was detected at SWMU293-IS02 above its corresponding soil to groundwater transfer limit. A groundwater sample needs to be taken to confirm that the lead has not impacted the groundwater.

10 - SWMU 294 - 1203 Oil/Water Separator

The sample identified as 291-IS05 should be 294-IS05.

11 - SWMU 302 - AS563 Aboveground Storage Tank

The rationale noted in Section 4.31.4 does not support the no further action conclusion for the SVOCs at SWMU 302. If SVOCs are associated with "particulate matter, soils, and sediments" then one would expect all samples around the AST to be impacted with the same levels of SVOCs and only near the ground surface. The SVOC contamination at this SWMU needs to be assessed in the soil and groundwater.

12 - SWMU 303 - Aboveground Storage Tank

The rationale given in Section 4.32.3 does not support the no further action conclusion for the 14,000 ug/Kg of acetone detected in soil sample SWMU303-IS04. An additional soil sample will need to be taken from the same location to confirm the absence of acetone contamination.

13 - SWMU 312 - Oil/Water Separator S-1735 (S1698)

The rationale provided in Section 4.41.4 does not support a no further action conclusion for the benzo(a)pyrene at SWMU 312. If the benzo(a)pyrene is a "ubiquitous product of incomplete combustion" associated with "particulate matter, soils, and sediments" then one would expect all samples to be impacted with similar levels of SVOCs and only near the ground surface. The SVOC contamination detected in the soil needs to be further assessed at this SWMU.

14 - SWMU 316 - TC773 Oil/Water Separator

The rationale provided in Section 4.45.4 does not support the no further action conclusion for the benzo(a)pyrene at SWMU 316. If the benzo(a)pyrene is a "ubiquitous product of incomplete combustion" associated with "particulate matter, soils, and sediments" then one would expect all samples to be impacted with the same levels of SVOCs and only near the ground surface. The SVOC contamination at this SWMU needs to be assessed in the soil and the groundwater.