

06.01-12/16/93-01044

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

December 16, 1993

Commander, Atlantic Division
Naval Facilities Command
Code 1823-1

Attention: MCB Camp Lejeune, RPM
Ms. Linda Berry, P. E.
Norfolk, Virginia 23511-6287

Commanding General

Attention: AC/S, Environmental Management
Building 67, Marine Corps Base
Camp Lejeune, North Carolina 28542-5001

RE: Final Proposed Remedial Action Plan (PRAP) and Record of
Decision (ROD) for Operable Unit 2, Sites 6, 9, and 82,
MCB Camp Lejeune, Jacksonville, NC

Dear Ms. Berry:

The NC Superfund Section has completed its review of the referenced documents. We concur with the proposed remedies for this Operable Unit. We have recently received comments from our sister agencies on the Draft and Draft Final PRAP and ROD that we are attaching for your consideration. Regarding the need for an Air Quality Permit, NC Superfund acknowledges that such permits are not required for NPL sites, however, the substantive requirements of the North Carolina Air Quality regulations must be met. Please call me if you have any questions about this.

Sincerely,

Patrick Watters

Patrick Watters
Environmental Engineer
NC Superfund Section

cc: Preston Howard, DEHNR
Neal Paul, MCB Camp Lejeune
Gena Townsend, US EPA Region IV
Bruce Reed, DEHNR Wilmington Regional Office

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James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
A. Preston Howard, Jr., P.E., Director

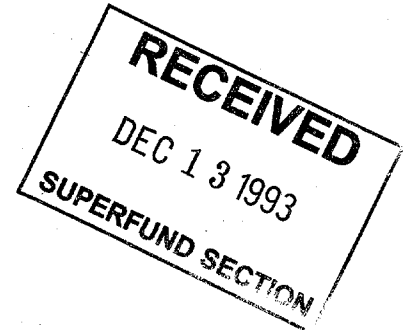
November 8, 1993

MEMORANDUM

TO: Bill Meyer, Director
Division of Solid Waste Management

FROM: A. Preston Howard, Jr. *A. Preston Howard, Jr.*

SUBJECT: Camp Lejeune - MCB
Draft Final Record of Decision
Operable Unit No. 2
Onslow County



The Division of Environmental Management has completed the review of the subject document and offers the following comments and recommendations.

Air Quality Section Comments

The Air Quality Section has no comments

Water Quality Section Comments

No comments have been received from the Water Quality Section.

Groundwater Section Comments

We do not agree with the comments on page 14 of the Baker Environmental, August 30, 1993, report. The report states, "the horizontal extent of shallow groundwater contamination is defined". The report also states that the horizontal and vertical extent of deep groundwater has been essentially defined. Review of the figures recently received by us for the Final RI (Remediation Investigation), Figure 4-24 through 4-27, do not support this claim.

We still have concerns with the Human Health Risk Assessment and Ecological Risk Assessment Sections. Our August 9, 1993 memo to you summarized those concerns, and we continue to believe the State Toxicologist should review these sections.

The selected soil remedial action alternative (Soil RAA No.7-On Site Treatment and Off-Site Disposal) allows for complete removal of the contamination sources. We concur with the selection of this alternative.

The groundwater remedial action plan selected by the Navy is RAA No.4 (Intensive Groundwater Extraction and Treatment). The Navy and their consultant stated during the 8/17/93 meeting that the objective of RAA No.4 is to remediate the groundwater to 15A NCAC 2L standards, and that remedial action progress would be reviewed in five (5) years. However, in review of the diagram of the capture zones presented in Figure 6, we do not see how this alternative will remediate the entire contaminant plume. RAA No.5 (Groundwater Extraction and Treatment) is our preferred selection, as it addresses the entire contaminate plume. Additionally, concerns have been raised as to the impacts that would result from the discharge of large amounts of fresh water effluent into Wallace Creek.

Although the entire extent of the groundwater contamination has not been identified for Site 82, we realize the importance of initiating remedial action. We trust that the Navy will continue to assess the extent of the groundwater contamination at this location and make the appropriate system alterations.

APH/sbp/Camp.SWM

cc: Alan Klimek
Steve Tedder
Wilmington Regional Office
Central Files
Groundwater Files

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Environmental Management

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SUPERFUND SECTION



James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
A. Preston Howard, Jr., P.E., Director

October 8, 1993



M E M O R A N D U M

TO: Bill Meyer, Director
Division of Solid Waste Management

FROM: *APH* A. Preston Howard, Jr. *Harlan B. Hunt*

SUBJECT: MCAB Camp Lejeune
Operable Unit #2
Draft PRAP & Draft ROD Report Review
Onslow County

The Division of Environmental Management has completed the review of the subject document and offers the following comments and recommendations.

Air Quality Comments

In review of the proposed remedial actions presented, any remedial action scenario chosen that includes an air pollution control device, may require an air permit.

Water Quality Comments

No comments have been received from the Water Quality Section.

Groundwater Section Comments

The comments on page 19 of the PRAP concern us. The report states, "However, based on studies conducted to date, there does not appear to be any impact on the fish or benthic communities due to site contamination." If you look at page 18, Table 2, chlorinated organic compounds, benzene and other organics, DDD, DDE, DDT, and some metals have been found in fish and crabs. You may want to solicit comments from the State Toxicologists about this matter.

The ROD document states that a "Critical Time Removal Action" will be implemented at the operable unit for removal of surficial and buried drums and containers identified during the Remedial Investigation (RI). This phase is currently in the design phase, and implementation is planned prior to the end of this year. We have no problem about this activity.

The ROD document states that groundwater poses a potential threat to human health and the environment because of the risks from future possible ingestion, and the contaminated soils pose a threat to human health and the environment because of the risks from exposure with the soils. A summary of the human health risk assessment associated with the previous RI is found in Section 6.0 of this report. Hazard indices for groundwater were found to be above 1.0 (indications that there may be a concern for noncarcinogenic health effects) for civilian personnel and future on site residents (adults and children).

As you may recall, the RI referenced on page 3-36 that three water supply wells in the area of Sites 6 and 82 have been shut down due to organic contamination. The source of the contamination impacting these wells was not identified by Camp Lejeune personnel. Eight water supply wells are within a one-mile radius of these sites. Also, eight water supply wells are within a one-mile radius of Site 9. Three of these supply wells have been shut down due to organic contamination. The source of the contamination impacting these wells was also not identified by Camp Lejeune personnel, but the report states that it is believed that the source may be related to the Hadnot Point Industrial Area.

The Ecological Risk Assessment is summarized on page 20 of the ROD. Some fish have been impacted, and maybe benthic macroinvertebrates, please see page 20. The report references that actual or threatened releases from Operable No. 2, if not addressed by some type of active remediation, may present a current or potential threat to public health, welfare, or the environment. This data, combined with the data in the previous paragraphs, suggests that the responsible party is not eligible for any variance or reclassification under the existing or recently adopted groundwater Rules.

As you may recall, we recommend that groundwater Remedial Action Alternative (RAA) No. 6 (Source Removal, Complete Groundwater Treatment) be implemented; and that soil Remedial Action Alternative No. 3 (On-Site Treatment) or No.5 (Off-Site Treatment) be implemented when we reviewed the previous RI and Feasibility Study documents.

In review of the soil remedial action alternatives

presented in these reports, we feel that either soil RAA No.3,5, or 7 would be preferred as these allow for complete removal of the contamination sources. The report references that Soil RAA No.7 (Partial On-Site Treatment and Partial Off-Site Disposal) would be preferred. We have no problem with the selection of this alternative.

In review of the groundwater remedial action alternatives presented in these reports, RAA No.6 (Complete Groundwater Treatment) is our recommended choice. This alternative will address remediation of the entire contaminant plumes. The reports state that RAA No.4 (Partial Groundwater Treatment) is the RP's preferred treatment method. We can not concur with this selection for reasons previously stated, and that this does not comply with 15A NCAC 2L. The reports reference that the entire extent of the plume still has not been identified. The ROD states on page 43 that "the USEPA and the NC DEHNR have concurred that Groundwater RAA No.4 appears to be best overall balanced alternative. They did not think that the No Action RAA would be acceptable since there are high levels of COC's in the deep aquifer". We are somewhat puzzled, not to mention concerned, by this statement, as we have not given anyone this idea about RAA No.4

If you have any questions, please advise.

APHjr/sbp/MCAB3.SWM

cc: Alan Klimek
Steve Tedder
Wilmington Regional Office
Central Files
Groundwater Files