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MCRD PARRIS ISLAND
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LETTER OF TRANSMITTAL AND MEMORANDUM REGARDING APPLICABILITY OF
COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT
MUNICIPAL LANDFILL PRESUMPTIVE REMEDY TO LANDFILLS AT SITES 1, 2, 3, 15 AND
41 MCRD PARRIS ISLAND SC
12/17/1997
BROWN AND ROOT ENVIRONMENTAL



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C49-12-7-152

December 17, 1997

Project Number 7394

Commanding Officer
Department of the Navy
SOUTHNAVFACENGCOM
ATTN: Art Sanford (Code 1862)
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: Clean III Contract No. N62467-94-D-0888
Contract Task Order No. 0020

Subject: Parris Island, Marine Corps Recruit Depot; South Carolina
Application of the CERCLA Municipal Landfill Presumptive
Remedy at Sites 1/41, 2/15, & 3

Dear Mr. Sanford:

One copy of the memorandum entitled "Applicability of the CERCLA Municipal Landfill Presumptive Remedy to the Landfills at SWMUs 1/41, 2/15, & 3" for MCRD Parris Island, South Carolina, has been forwarded to each of the Natural Trustees (Dr. Dillon, Ms. Duncan, and Ms. Went) for review. It would be appreciated if any comments or concerns could be discussed at the next Partnering Team meeting on January 21 and 22, 1997.

If you have any questions or require additional information of the comments provided, please call me at 412/921-8916 or Jason Brown at 412/921-8401.

Very truly yours,

A handwritten signature in cursive script that reads "Mark P. Speranza".

Mark P. Speranza, P.E.
Task Order Manager

MPS/gp

- c: D. Evans-Ripley, SOUTHDIV (w/o enclosure)
- P. Went, SCDNR (one copy)
- T. Dillon, NOAA (one copy)
- D. Duncan, U.S. Fish and Wildlife (one copy)
- D. Wroblewski, B&R Environmental (w/o enclosure)
- M. Perry, B&R Environmental (w/o enclosure)
- J. Brown, B&R Environmental (w/o enclosure)
- File 7394 (one copy)

**APPLICABILITY OF THE CERCLA MUNICIPAL LANDFILL
PRESUMPTIVE REMEDY TO THE MILITARY
LANDFILLS AT SWMUS 1/41, 2/15, AND 3
MCRD PARRIS ISLAND, SOUTH CAROLINA**

Subject: Application of the CERCLA Municipal Landfill Presumptive Remedy (U.S. EPA, 1996) at MCRD Parris Island, South Carolina

BACKGROUND

The purpose of this document is to formally record the Parris Island Partnering Team's decision that the CERCLA Municipal Landfill Presumptive Remedy process is applicable for Solid Waste Management Units (SWMUs) 1/41, 2/15, and 3. These SWMUs are being investigated at the Marine Corps Recruit Depot (MCRD) Parris Island, South Carolina to determine potential impacts to human health and the environment. In accordance with the U.S. EPA guidance document for the Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills (U.S. EPA, 1996) it is required that formal documentation be placed in the MCRD Parris Island Administrative Record.

The presumptive remedy process is used to streamline the Remedial Investigation/Feasibility Study (RI/FS) process at sites that typically use common remedies. In this case, the landfills at Parris Island are considered to be similar to municipal landfills which are described to contain mainly municipal waste intermixed with some industrial waste. Because Parris Island did not conduct significant industrial activity it is believed that SWMUs 1/41, 2/15, and 3 can be investigated and evaluated using the CERCLA Municipal Landfill Presumptive Remedy.

Use of the presumptive remedy procedures will streamline the RI/FS by:

- 1) Relying on data from sources where contaminant migration is likely to have taken place rather than characterizing landfill contents,
- 2) Conducting a streamlined risk assessment¹.
- 3) Developing a focused feasibility study that analyzes only alternatives consisting of appropriate components of the presumptive remedy, and as required by the National Contingency Plan, the no action alternative.

¹ Appropriate when established standards are clearly exceeded or if other conditions exist that provide a clear justification for action. Otherwise, a complete baseline risk assessment may be necessary.

DECISION FRAMEWORK

The following steps are used in the decision framework to determine if the application of the CERCLA municipal landfill presumptive remedy is appropriate to military landfills (e.g., SWMUs 1/41, 2/15, 3). A copy of this decision framework from the U.S. EPA Guidance Document on Presumptive Remedies is provided as Attachment 1.

Step 1. Collect Available Information.

Available data is collected to determine the types and volumes of wastes to ascertain if the landfill is suitable for a remedy contained in the presumptive remedy. The operating history and the sources, types, and volume of the landfill at each SWMU is described in the Initial Assessment Study report (NEESA, 1986). A Verification Step (Site Inspection) was conducted in 1990 that provides preliminary analytical data concerning SWMUs 1/41, 2/15, and 3 (McClelland, 1990). Additionally, a field investigation that meets the requirements of both an RI and a RCRA Facility Investigation (RFI) will be conducted in early 1998 to provide additional analytical information. This field effort will concentrate on characterizing areas where contaminants are likely to migrate. Characterization of landfill contents (e.g., hot spots) may be performed if the initial investigation results reveal significant off site migration, suggesting that source treatment may be an appropriate means for achieving acceptable risk levels.

The information contained within the existing documents provide sufficient information to indicate that a component of the presumptive remedy will be appropriate for the remedy for each of the landfills. Additionally, data that will result from the scheduled RI/RFI will provide sufficient information for determining potential risk to human health and the environment to allow selection of the appropriate component(s) of the presumptive remedy. Continue with Step 2.

Step 2. Consider Effects of Land Reuse Plans on Remedy Selection.

Selection of the presumptive remedy (containment or minimal action) would not affect the reasonably anticipated future land-use of SWMUs 1/41, 2/15, and 3. A road (causeway) is currently built on top of the landfill that comprises SWMU 3. If the containment presumptive remedy (i.e., a cap) were to be selected, the causeway could still be used as a vehicular traffic route. SWMUs 1/41 and 2/15 are currently undeveloped and are located in portions of the Depot that can remain undeveloped. Continue with Step 3.

Step 3. Do Landfill Contents Meet the Definition of a Municipal Landfill-Type Waste?

Available records and data indicate that the wastes contained within the landfills meet the appropriate municipal landfill characteristics for applicability of the presumptive remedy. Most of the wastes disposed in the SWMUs 1/41, 2/15, and 3 landfills are not hazardous materials and include household, commercial, and industrial solid waste. Although quantities of asbestos, batteries, hospital wastes, paints, paint thinners, empty pesticide containers, transformer oils, and other solvents may have been disposed in these landfills, the volume of these wastes are anticipated to be in low proportions compared to the municipal wastes disposed at these sites.

Additionally, risks posed by the landfill sites are expected to be low. Although Verification Step data gathered during the McClelland study (1990) indicated that inorganic concentrations exceeded U.S. EPA Region 4 Waste Management Division Saltwater and Sediment Ecological Screening Values, these values are based on contaminant levels associated with a low probability of risks to ecological receptors (U.S. EPA, 1995). In most cases, detected concentrations levels just exceed these screening values.

Based on the above information, the landfill contents for each SWMU meet the definition of a municipal-type waste. Continue with Step 4.

Step 4. Are Military-Specific Wastes Present?

Low-hazard, military-specific wastes (e.g., low-level radioactive wastes and decontamination kits) and high hazard, military-specific wastes (e.g., chemical warfare agents and artillery) are not known to have been disposed at the landfills located at Parris Island.

Continue with Step 5.

Step 5. Is Excavation of Landfill Contents Practical?

SWMUs 1/41, 2/15, and 3 landfills contain solid waste co-disposed with smaller proportions of hazardous materials (e.g., paint, transformer oil) which is anticipated to represent minimal risk to human health or the environment. This along with the landfill sizes which encompass 4, 1.9 and 10 acres for SWMUs 1/41, 2/15, and 3, respectively, make excavation of landfill contents unlikely. The cost associated with excavation and disposal of the landfill contents are expected to be high compared to the reduction in risk. Therefore excavation of the landfill is considered impractical.

CONCLUSION

Based on the above decision framework, it has been concluded by the MCRD Parris Island Tier I Partnering Team that the CERCLA Municipal Landfill Presumptive Remedy process is suitable for use at SWMUs 1/41, 2/15, and 3. This approach will not prevent the team from determining that additional, non-presumptive remedies may be required at one or all of the SWMUs based on the results of the field investigations.

PARTNERING TEAM CONCURRENCE

The Parris Island Tier I Partnering Team has agreed that the Application of the CERCLA Presumptive Remedy to Military Landfills is appropriate for SWMUs 1/41, 2/15, and 3.

Art Sanford, Remedial Project Manager
U.S. Navy, SOUTHDIVNAVFACENGCOM

Tim Harrington, Env. Project Specialist
MCRD Parris Island

Kenneth Lapierre, U.S. EPA Region 4
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Susan Peterson, Project Manager
South Carolina Department of Health and
Environmental Controls

Karen S. Atchley, Project Manager
Bechtel Environmental, Inc.

Date: November 5, 1997

References

McClelland Consultants, May 1990. Remedial Investigation, Verification Step. MCRD Parris Island, South Carolina, UIC M00263.

Naval Energy and Environmental Support Activity (NEESA), September 1986. Initial Assessment Study of MCRD Parris Island, South Carolina. NEESA13-095.

U.S. EPA Region 4, November, 1995. Supplemental Guidance to RAGS: Region 4 Ecological Risk Assessment Bulletin No. 2. Waste Management Division, Atlanta, GA.

U.S. EPA, December, 1996. Application of the CERCLA Municipal Landfill Presumptive Remedy to Military Landfills. Office of Solid Waste and Emergency Response. Directive No. 9355.0-67FS, EPA-540-F-96-020. Washington, DC.

Attachment 1

Decision Framework

Collect Available Information

- Waste Types
- Operating History
- Monitoring Data
- State Permit/Closure
- Land Reuse Plans
- Size/Volume
- Number of Facility Landfills

Consider Effects of Land Reuse Plans on Remedy Selection

Do Landfill Contents Meet Municipal-Type Waste Definition?

NO → Military-Specific Wastes Are Present; Consult With Military Waste Experts

Note: Site-specific factors such as hydrogeology, volume, cost, and safety affect the practicality of excavation of landfill contents.

Is Excavation of Contents Practical?

YES → No Military Wastes

NO → Military Wastes Present

Is Containment the Most Appropriate Remedy?

NO → Don't Use Containment Presumptive Remedy (A conventional RI/FS is required.)

NO UNCERTAIN → USE CONTAINMENT PRESUMPTIVE REMEDY (A streamlined risk assessment and focused feasibility study are used.)

YES → USE CONTAINMENT PRESUMPTIVE REMEDY (A streamlined risk assessment and focused feasibility study are used.)

Note: Site investigation or attempted treatment may not be appropriate; these activities may cause greater risk than leaving waste in place.

USE CONTAINMENT PRESUMPTIVE REMEDY
(A streamlined risk assessment and focused feasibility study are used.)