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Baker

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August 11, 1992

Commanding Officer
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511-6287

Attn: Mr. Byron Brant, P.E.
Code 1822

Re: Contract N62470-89-D-4814
CTO-0133, RI/FS at Sites 6, 9, 48, and 69
MCB Camp Lejeune, North Carolina
Amendment to RI/FS Project Plans for Waste Handling

Dear Mr. Brant:

As a follow-up to our discussion regarding the handling of investigation derived wastes during the upcoming field work at the referenced sites, Section 5.11 of the Final RI/FS Sampling and Analysis Plan (SAP) has been amended and is attached for your review and approval.

It is recommended that the procedures for handling investigation derived wastes be amended to avoid unnecessary handling and disposal costs that will be generated if the present procedures are implemented. At present, the Final RI/FS SAP states that drill cuttings and monitoring well purge/development water will be containerized in 55-gallon drums. This will result in hundreds of drums, and may be unnecessary. The proposed amendment (attachment) is based on EPA Region IV guidance and discussions with Mr. William Cosgrove of EPA Region IV's Environmental Compliance Branch.

The proposed amendment to the SAP reflects changes to the handling of drill cuttings and monitoring well purge/development water. Potentially non-hazardous drill cuttings will be placed back into the borehole and backfilled with cement/bentonite grout. Potentially hazardous drill cuttings will be containerized or stockpiled at Lot 203 for subsequent sampling and disposal. The decision to containerize the cuttings will be based on organic vapor levels, which will be obtained by an HNU during drilling, and/or visual inspection of the drill cuttings by the Site Geologist. This decision will be made in the field at the discretion of the Site Manager or Site Geologist. Drill cuttings that are not representative of natural conditions due to discoloration or odors will be containerized in 55-gallon drums or stockpiled at Lot 203. HNU readings which result in upgrading the level of personal protection will necessitate containerization of the cuttings. The Health and Safety Plan indicates the levels for upgrading the level of personal protection.

Purge water/development water from all monitoring wells will be containerized in either tankers, or large (250-gallon) containers instead of 55-gallon drums. At the conclusion of the field investigation, a subcontractor will be procured to collect the wastewaters and transport the wastewater to one of the treatment plants at Camp

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Lejeune for treatment. This activity will be coordinated with Mr. George Radford (Camp Lejeune Environmental Management Department).

The handling of decontamination fluids will be placed in 55-gallon drums, as originally stated in the SAP. Heavy equipment such as drill rigs may be decontaminated at military vehicle equipment wash racks. Wastewater generated at the wash racks will not require collection since the wastewater will be treated at a Camp Lejeune treatment facility (depending upon the location of the wash rack).

This amendment to the SAP needs to be approved by both the North Carolina DEHNR and EPA Region IV. As stated above, the proposed amendment is consistent with EPA Region IV guidelines (see Section 4.5 of the EPA Region IV Environmental Quality Branch Standard Operating Procedures and Quality Assurance Manual (February 1, 1991)).

If you have any questions, please do not hesitate to contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Raymond P. Wattras
Raymond P. Wattras
Project Manager

RPW/rw
Attachment

cc: [REDACTED]

**AMENDMENT NO. 1 TO THE RI/FS SAMPLING AND ANALYSIS PLAN
RI/FS AT SITES 6, 9, 48, AND 69
MCB CAMP LEJEUNE, NORTH CAROLINA**

5.11 Handling of Investigation Generated Wastes

5.11.1 Responsibilities

LANTDIV - LANTDIV or the facility must ultimately be responsible for the final disposition of site wastes. As such, a LANTDIV representative will usually prepare and sign waste disposal manifests as the generator of the material, in the event off-site disposal is required. However, it may be the responsibility of Baker, depending on the contingency discussions during execution of the investigation to provide assistance to LANTDIV in arranging for final disposition and preparing the manifests.

Project Manager - It is the responsibility of the Project Manager to work with the LANTDIV-EIC and Activity contact in determining the final disposition of site investigation wastes. The Project Manager will relay the results and implications of the chemical analysis of the waste or associated material, and advise on the regulatory requirements and prudent measures appropriate to the disposition of the material. The Project Manager also is responsible for ensuring that field personnel involved in site investigation waste handling are familiar with the procedures to be implemented in the field, and that all required field documentation has been completed.

Site Manager/Field Team Leader - The Field Team Leader (or Site Manager) is responsible for the on-site supervision of the waste handling procedures during the site investigation. The Field Team Leader also is responsible for ensuring that all other field personnel are familiar with these procedures.

5.11.2 Sources of Investigation Derived Wastes (IDW)

Field investigation activities often result in the generation and handling of potentially contaminated materials that must be properly managed to protect the public and the environment, as well as to meet legal requirements. These wastes may be either hazardous or non-hazardous in nature. The nature of the waste (hazardous or non-hazardous) will determine how the wastes will be handled during the field investigation.

The sources of waste material depend on the site activities planned for a project. The following types of activities (or sources), typical of site investigations, may result in the generation of waste material which must be properly handled:

- Drilling and monitoring well construction (drill cuttings)
- Monitoring well development (development water)
- Groundwater sampling (purge water)
- Aquifer pump tests (potentially contaminated groundwater)
- Heavy equipment decontamination (decontamination fluids)
- Sampling equipment decontamination (decontamination fluids)
- Personal protective equipment (health and safety disposables)
- Mud rotary drilling (contaminated mud)

5.11.3 Designation of Potentially Hazardous and Non-Hazardous IDW

Wastes generated during the field investigation can be categorized as either potentially hazardous or non-hazardous in nature. The designation of such wastes will determine how the wastes will be handled. The criteria for determining the nature of the waste, and the subsequent handling of the waste, is described below for each type of investigative waste.

5.11.3.1 Drill Cuttings

Drill cuttings will be generated during the augering of test borings and monitoring well boreholes. As the borehole is augered, and soil samples collected, the Site Geologist will monitor the cuttings/samples with an HNU photoionization (PID) unit for organic vapors. In addition, the Site Geologist will describe the soils in a field log book. If no elevated PID readings are detected, and no unusual soil conditions are noted (e.g., staining or odors), the drill cuttings will be classified as potentially non-hazardous and can be placed back into the borehole. The borehole should then be topped with bentonite grout.

If a well is to be constructed in the borehole, the drill cuttings can be spread around the well. The only exception to this is at locations where military or civilian operations are ongoing (e.g., Site 48, Lot 201, and Site 9). At these locations, the soil cuttings from monitoring well boreholes should be containerized in 55-gallon drums.

If elevated PID readings are encountered, or the drill cuttings appear to be unnatural because of appearance or odor, the cuttings will be containerized in 55-gallon drums or stocked-piled in a central location such as Lot 203, which is a secured area. If the later option is used, the soil shall be placed on a liner (plastic sheeting) and covered. "Elevated" PID readings shall be defined as a reading which necessitates an upgrade in personal level of protection. The health and safety plan identifies these levels.

5.11.3.2 Monitoring Well Development and Purge Water

With the exception of background wells, or wells located upgradient from source areas, all development and purge waters shall be containerized in tankers, or large (250-gallon) containers.

5.11.3.3 Decontamination Fluids

Equipment and personal decontamination fluids shall be containerized in 55-gallon drums. The fluids shall be collected from the decon/wash pads. If military vehicle wash racks are used to decon the heavy equipment, no collection of these wastewaters will be necessary since the decontamination waters will be treated at one of the Camp Lejeune treatment facilities (depending upon the location of the vehicle wash racks).

5.11.3.4 Personal Protective Equipment

All personal protective equipment (tyvek, gloves, and other health and safety disposables) shall be placed in the dump box, which will be provided by Camp Lejeune. Camp Lejeune will dispose of these materials when the box is full.

5.11.4 Labeling

If 55-gallon drums are used to containerize drill cuttings, the containers will be consequently numbered and labeled by the field team during the site investigation. Container labels shall be legible and of an indelible medium (waterproof marker, paint stick, or similar means). Information shall be recorded both on the container lid and its side. Container labels shall include, as a minimum:

- LANTDIV CTO (number)
- Project name
- Drum number

- Boring or well number
- Date
- Source
- Contents

If laboratory analyses reveals that containerized materials are hazardous or contain PCBs, additional labeling of containers may be required. The project management will assist LANTDIV in additional labeling procedures, if necessary, after departure of the field team from the facility. These additional labeling procedures will be based upon the identification of material present; EPA regulations applicable to labeling hazardous and PCB wastes are contained in 40 CFR Parts 261, 262, and 761.

5.11.5 Container Log

A container log shall be maintained in the site log book. The container log shall contain the same information as the container label plus any additional remarks or information. Such additional information may include the identification number of a representative laboratory sample.

5.11.6 Container Storage

Containers of site investigation wastes shall be stored in a specially designated, secure area that is managed by the Camp Lejeune Environmental Management Division until disposition is determined. An area within Lot 203 or Storage Lot 140 (HPIA) would be appropriate. All containers shall be covered with plastic sheeting to provide protection from weather.

If the laboratory analyses reveal that the containers hold hazardous or PCB waste, additionally required storage security may be implemented; in the absence of the investigation team, these will be the responsibility of LANTDIV or the facility, as confirmed by the contingency discussions.

Baker will assist LANTDIV in devising the storage requirements, which may include the drums being staged on wooden pallets or other structures to prevent contact with the ground and being staged to provide easy access. Weekly inspections by facility personnel of the temporary storage area may also be required. These inspections may assess the structural integrity of the containers and proper container labeling. Also, precipitation that may accumulate in the storage area may need to be removed. These weekly inspections and whatever precipitation removal shall be recorded in the site logbook.

5.11.7 Container Disposition

The disposition of containers of site investigation generated wastes shall be determined by LANTDIV, with the assistance of Baker, as necessary. Container disposition shall be based on quantity of materials, types of materials, and analytical results. If necessary, specific samples of contained materials may be collected to identify further characteristics which may affect disposition. Typically, container disposition will not be addressed until after receipt of applicable analytical results; these results are usually not available until long after completion of the field investigation at the facility.

5.11.8 Disposal of Contaminated Materials

Actual disposal methods for contaminated materials disturbed during a site investigation are the same as for other PCB or hazardous substances: incineration, landfilling, treatment, and so forth. The responsibility for disposal must be determined and agreed upon by all involved parties during negotiations addressing this contingency.

The usual course will be a contractor specialist retained to conduct the disposal. However, regardless of the mechanism used, all applicable Federal, state and local regulations shall be observed. EPA regulations applicable to generating, storing and transporting PCB or hazardous wastes are contained in 40 CFR Parts 262, 263, and 761.

Another consideration in selecting the method of disposal of contaminated materials is whether the disposal can be incorporated into subsequent site cleanup activities. For example, if construction of a suitable on site disposal or treatment structure is expected, contaminated materials generated during the site investigation may be stored at the site for treatment/disposal with other site materials. In this case, the initial containment (drums or other containers) shall be evaluated for use as long-term storage. Also, other site conditions, such as drainage control, security and soil types must be considered, in order to provide proper storage.