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# US Army Corps of Engineers

Toxic and Hazardous  
Materials Agency

## APPENDED HEALTH AND SAFETY PLAN FOR TASK ORDER 1

for the

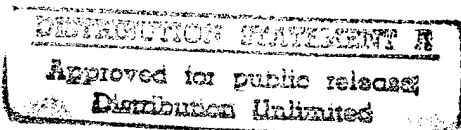
### RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) and Base Closure Environmental Study for the Lexington-Blue Grass Army Depot

Submitted to:

Commander  
Department of the Army  
United States Army Toxic and Hazardous Material Agency  
Aberdeen Proving Ground, Maryland

Submitted by

Metcalf & Eddy, Inc.  
2800 Corporate Exchange Drive  
Suite 250  
Columbus, Ohio 43231



Prepared Under:

Contract No. DAAA15-90-D-0016  
Task Order Number 4

October 24, 1991

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### INTRODUCTION

Metcalf & Eddy, Inc. (M&E), under contract to the United States Army Toxic and Hazardous Materials Agency (USATHAMA), contract number DAAA15-90-D-0016, Task Order number 4, has appended the plans prepared for the RFI/CMS base closure at Lexington-Blue Grass Army Depot, Kentucky. This document is one of these appendices -- the appendix to the Health and Safety Plan. The appended document Task Order 1, Health and Safety Plan Lexington-Blue Grass Army Depot, Kentucky (USATHAMA, 1991) is henceforth called the "original document".

USEPA review comments of July 31, 1991, on the original document were incorporated into this appended document unless the comment requested work outside the Task Order #4 scope of work. Work outside the scope will be conducted at a later date, as deemed necessary by the COR.

**AMENDMENTS/CLARIFICATIONS/ADDITIONS TO THE HEALTH AND SAFETY PLAN**

The Health and Safety Plan is hereby amended/clarified/appended as follows.

Section 1.1, Page 1, Paragraph 1.

Insert: "and Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI)"  
after "Transfer"

Section 1.1, Page 1, Paragraph 3, 1st Sentence.

Change: "...Contract No. DAAA15-90-90-0013, Task Order No. 1"

Change to: "...Contract No. DAAA15-90-D-0016, Task Order No. 4"

Sections 1.2 - 1.3.

These Sections of the original plan are unchanged and apply as written.

Sections 1.4, Page 6, Paragraph 2, line 3.

Change: "et.seq." is deleted.

Section 1.4, Page 6, Paragraph 2 lines 5-6.

Change: "The certification also must specify that the individual is capable of working while wearing respiratory protective equipment."

Change to: "The indication of work limitations must include any restriction that the physician recommends on the individual's wearing of respiratory protective equipment."

Section 1.4, Page 6 Paragraph 3, Bullets 2 and 5.

Change second bullet: "Following an acute exposure to any toxic or hazardous material."

Change to: "Following any known acute exposure to possibly injurious concentrations of any toxic or hazardous material".

Change: In the Sentence at the fifth bullet, change the word "or" after the word "symptoms".

Change to: The word "of".

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Section 1.4, Page 7, Paragraph 1, lines 1-3.

**Change:** Delete the sentence "To participate in this program, the employee must sign a consent form authorizing the examining physician to release all relevant medical records relating to the Health and Safety program to the Health and Safety Manager".

Sections 2.1 - 2.5.1. These Sections of the original plan are unchanged and apply as written.

Section 2.5.2, Page 25, Bullet 5, lines 1-2.

**Change:** "Exposure may occur via absorption through the skin (ionizing radiation interacts with living material)."

**Change to:** "Exposure may occur through penetration of external radiation through or into the skin, or by inhaling or ingesting materials that emit ionizing radiations."

Sections 2.5.2.1 - 2.5.2.19. These Sections of the original plan are unchanged and apply as written.

Section 3.1, Page 34, 1st Paragraph

**Change:** Insert "All zones shall be clearly marked using lines, placards, hazard tape or signs, or enclosed by physical barriers such as chains, fences, or ropes." at the end of the first Sentence.

Section 3.1, Page 34, 1st Paragraph

**Change:** Insert "Generally, establishment of all three zones at each investigation site will not be required unless air monitoring or other evidence indicates the presence of significant contamination. At each site, an exclusion zone will be established to prevent non-project personnel from entering the work area. A centralized decontamination area will be established at the Lexington facility that will be used for activities at all sites. Reasonable care will be used by personnel to prevent the contamination of clean areas of the facility during travel between the investigation sites and the decontamination area, including washing boots and vehicle wheels at each site as necessary." as the 2nd Paragraph.

Section 3.1, Page 34, 2nd Paragraph

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**Change:** Insert "Figure 3-1 is an example of Work Zone Designation" as the 3rd Paragraph.

**Section 3.1.1, Page 34, 6th Sentence**

**Change:** Delete the Sentence - "Exclusion zones will be established for each activity or location and will be definitely marked for recognition."

**Section 3.1.2, Page 34, 8th Sentence**

**Change:** Insert "Figure 3-2 is an example of a Contamination Reduction Zone" after the 8th Paragraph.

**Section 3.0**

**Change:** Insert Figures 3-1 and 3-2.

**Section 4.0.** This Section of the original plan is unchanged and applies as written.

**Section 5.0, Page 44, Paragraph 1, 2-3.**

**Change:** "The OSHA Asbestos regulations (8-hour time-weighted average) of 0.1 fibers/cc will be used as a means of upgrade to Level C protective equipment."

**Change to:** Any indication that exposure may exceed the OSHA Permissible exposure limit of 0.2 fibers/cc (8-hour time weighted average) or the OSHA Excursion Limit of 1.0 fiber/cc (30-minute time-weighted average) will trigger an upgrade of equipment to include a respirator with high efficiency (HEPA filter). An indication that exposure may exceed these levels by more than a factor of 10 will trigger the immediate use of controls to reduce exposure and/or upgrade to level B respiratory protection.

**Section 5.0, Page 44, Paragraphs 2-4.**

**Change:** Delete Paragraphs and insert the following.

**Change to:** Monitoring for radiation exposure will be done continuously on first entry into any area suspected of possibly containing radioactive materials. Monitoring will make use of a portable Geiger-Mueller survey instrument which responds to alpha, beta, and gamma radiations. The instrument will be used to monitor general external radiation levels, to check suspect areas for activity, and to check shoes for contamination before leaving the suspect area.

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Indications of levels above the instrument background (as read before entry into any potentially contaminated area) will be recorded.

Any level above instrument background that may be associated in part with an inhalation hazard (airborne dust) will result in immediate upgrade to respiratory protection including a high-efficiency filter, plus control measures as appropriate to avoid tracking contamination. Note: As a first indication, a positive meter response from a wipe sample from area surfaces will constitute evidence of an inhalation hazard.

Any indication of an inhalation hazard or of an external radiation exposure level that may exceed 2 millirems per hour will result in evacuation from the affected area and no further activity in the affected area until consultation with the Project Health and Safety Officer or the Corporate Health and Safety Officer.

Sections 6.0 - 7.2. This Section of the original plan is unchanged and applies as written.

Section 7.3, Page 52 Jacobs Engineering Group Inc. Contacts. This Section has been revised to read:

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>
Richard Renzi	Corporate Health and Safety Officer	(617) 246-5200
C. Herb Hickman	Project Health and Safety Officer	(614) 890-5501
Joseph Towarnicky	Program Manager	(614) 890-5501
Gary Thornhill	Task Manager	(614) 890-5501

Section 8.0 - 9.0. This Section of the original plan is unchanged and applies as written.

Section 10.0, Page 55.

The signatories for the Section have been revised to read:

C. Herb Hickman  
Metcalf & Eddy, Inc  
Project Health & Safety Manager

Richard Renzi  
Metcalf & Eddy, Inc.  
Corporate Health & Safety Manager

Tables

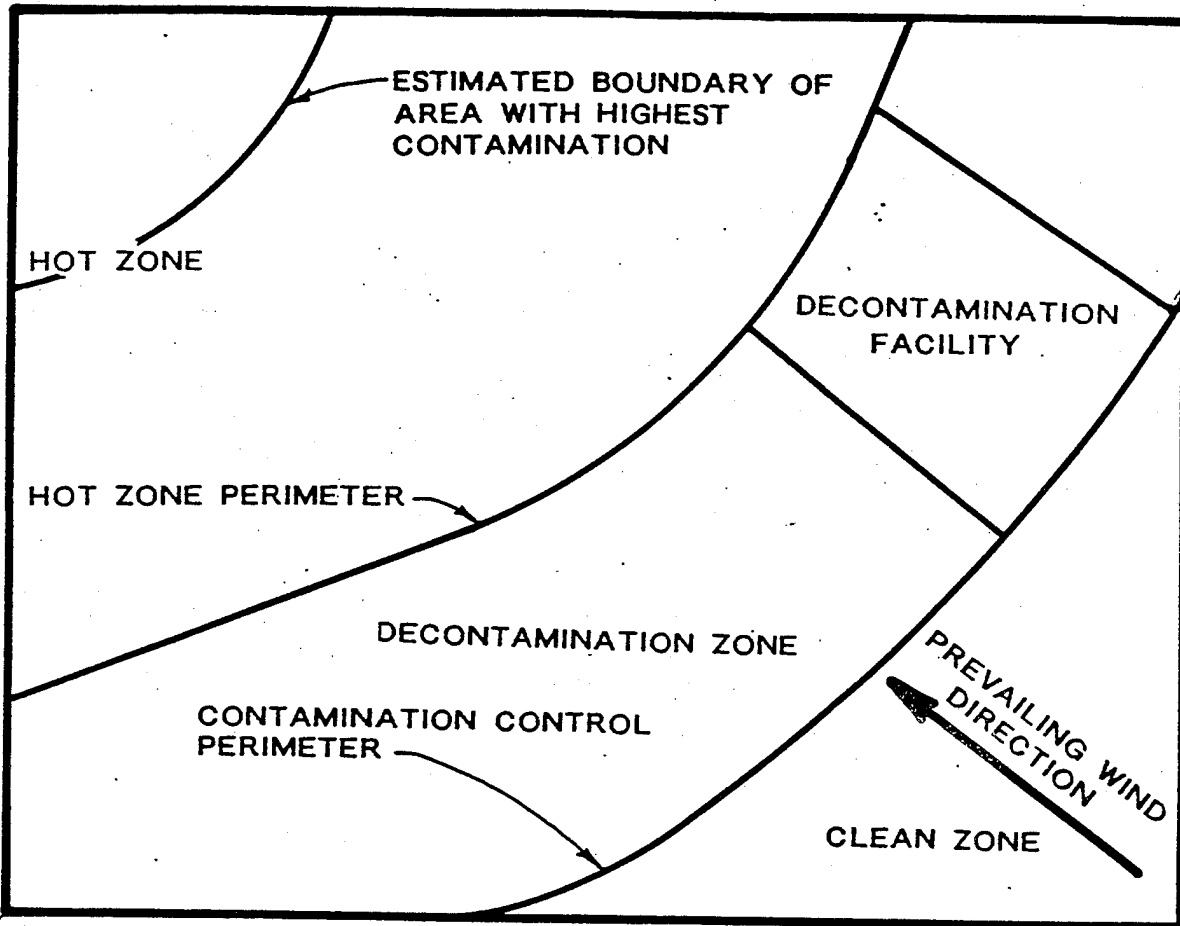
Table 1 - Levels of Personal Protection

The Table has been revised for the Disposal Sites to read:

<u>Activity Location</u>	<u>Task</u>	<u>Protection Equipment</u>
Disposal Sites	Geophysical Survey	D
	Trenching	B*
	Monitoring Well Installation/Sampling	D (Modified)
	Soil Boring	B**
	Sediment/Surface Water Sampling	D (Modified)

\* - Level B at the Old Landfill. Other disposal areas are level D.

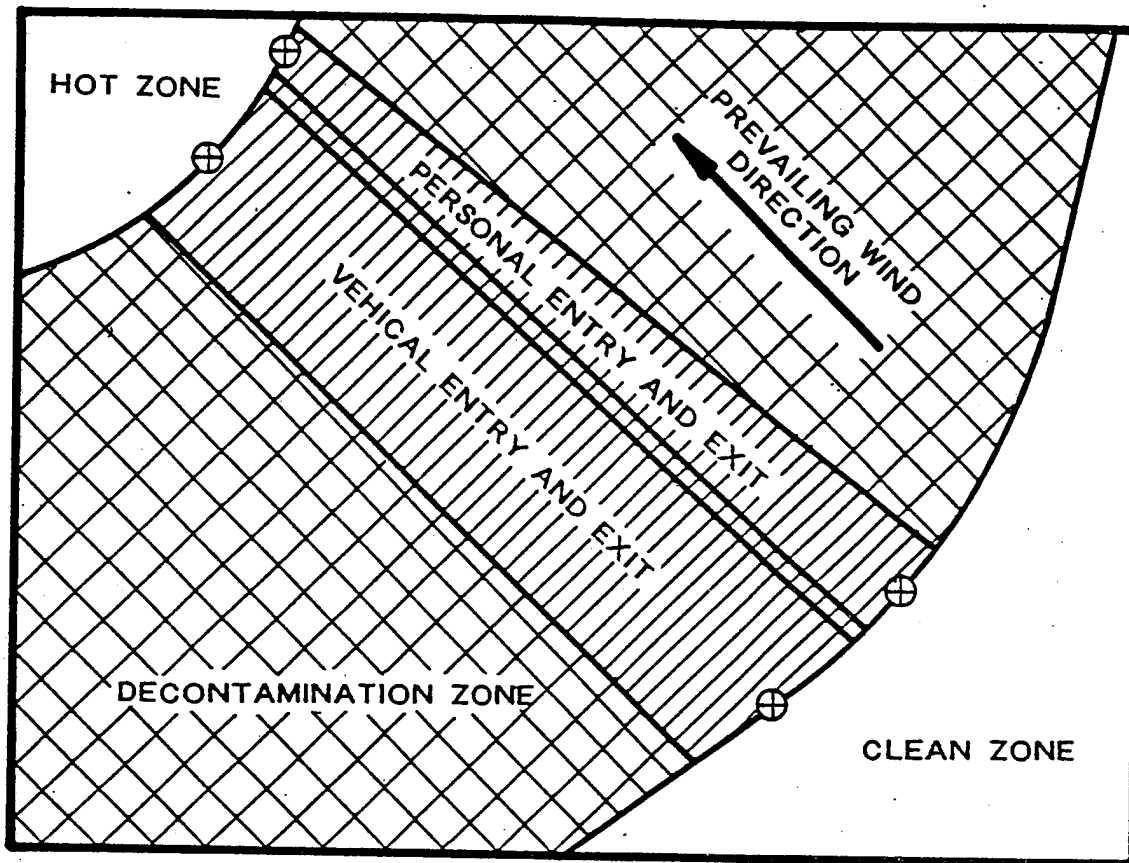
\*\* - Level B at the Old Landfill, Industrial and Sanitary Disposal Landfill, and New Landfill for deep soil boring taken in place of trenching. Other disposal areas are level D (modified).





EXAMPLE WORK ZONE  
LEXINGTON FACILITY  
 LEXINGTON, KENTUCKY

Project Number  
 007248

Figure  
 3-1



- ⊕ ACCESS CONTROL POINT
-  CONTAMINATION REDUCTION CORRIDOR
-  CONTAMINATION REDUCTION ZONE



EXAMPLE CONTAMINATION REDUCTION CORRIDOR  
LEXINGTON FACILITY  
 LEXINGTON, KENTUCKY

Project Number  
 007248

Figure  
 3-2