

ENVIRONMENTAL RESTORATION PROGRAM

**OPERABLE UNIT 6, DECONTAMINATION AND DECOMMISSIONING
VERIFICATION WORK PLAN
HEALTH AND SAFETY PLAN**

**MOUND PLANT
MIAMISBURG, OHIO**

August 1992

**DEPARTMENT OF ENERGY
ALBUQUERQUE FIELD OFFICE**

**ENVIRONMENTAL RESTORATION PROGRAM
TECHNICAL SUPPORT OFFICE
LOS ALAMOS NATIONAL LABORATORY**

**FINAL
(REVISION 0)**

CONTENTS

1. INTRODUCTION	1
2. POLICY STANDARDS	1
3. HEALTH AND SAFETY RESPONSIBILITIES	1
4. RISK/HAZARD ANALYSIS	2
5. WORKER TRAINING	2
6. PERSONNEL PROTECTION REQUIREMENTS	2
7. MEDICAL SURVEILLANCE	2
8. FREQUENCY AND TYPES OF MONITORING	2
9. SITE CONTROL MEASURES	2
10. DECONTAMINATION PROCEDURES	2
11. STANDARD OPERATING PROCEDURES	3
12. CONTINGENCY PLANS	3
12.1. EMERGENCY CONTACTS	3
12.2. EVACUATIONS	3
12.3. CONTINGENCY PLANS	3
12.3.1. Fire/Explosion	7
12.3.2. Personnel Injuries	7
13. ENTRY PROCEDURES FOR CONFINED SPACES	7
14. REFERENCES	7
APPENDIX A WESTON Health and Safety Form	

FIGURES

12.1 Emergency contacts	5
12.2. Emergency notification flow chart	6

TABLES

XI.1 Mound Plant ER Program Standard Operating Procedures for Health and Safety Monitoring	4
--	---

1. INTRODUCTION

A Health and Safety Plan is one component of the planning documents prepared for field activities and is required by the Federal Facilities Agreement for the Mound Plant. The purpose of this document is to provide the requirements and guidance for implementation of health and safety-related activities for work done under the Verification Work Plan for Decontamination and Decommissioning (D&D) areas, Operable Unit 6.

For the staff of Roy F. Weston, Inc., the Operable Unit 9, Site-Wide Health and Safety Plan (DOE 1991b) and accompanying Standard Operating Procedures (DOE 1991a) will be followed with the following exceptions:

- No soils or water samples will be taken outside the Mound Plant boundaries;
- No groundwater samples will be taken;
- No flora or fauna will be sampled, and no ecological assessment will be made; and
- Air sampling may be required as part of health and safety monitoring for asbestos or other air quality parameters in closed areas.

For each field activity, a Health and Safety Form will be prepared and will provide detailed guidance for the activity. A blank sample Health and Safety Form is found in Appendix A of this document. The form found in the Operable Unit 9 Health and Safety Plan (DOE 1991b) will serve as a model for the information required. Area-specific information will be used for area specific Operable Unit 6 activities.

This Environmental Restoration (ER) Program Health and Safety Plan has been reviewed and accepted by Mound Plant personnel to ensure that it is compatible with the Mound Plant organization. Workers participating in field activities will read the area-specific Health and Safety Plan and sign the document. EG&G Mound Applied Technologies' staff will follow their own established Mound Plant Health and Safety Program.

2. POLICY STANDARDS

No exceptions.

3. HEALTH AND SAFETY RESPONSIBILITIES

No exceptions.

4. RISK/HAZARD ANALYSIS

Exception: No work will be done on or near water greater than 3 ft deep.

5. WORKER TRAINING

No exceptions.

6. PERSONNEL PROTECTION REQUIREMENTS

No exceptions.

Note: No level C protection is planned because cleanup is expected to be complete at the time of sampling. However, level C may be required in areas where only part of the area has undergone cleanup or where access to the area to be sampled is through an area where level C is required.

7. MEDICAL SURVEILLANCE

No exceptions.

8. FREQUENCY AND TYPES OF MONITORING

No exceptions.

9. SITE CONTROL MEASURES

No exceptions.

10. DECONTAMINATION PROCEDURES

No exceptions.

11. STANDARD OPERATING PROCEDURES

Table XI.1 lists the Standard Operating Procedures identified with the Operable Unit 9 Health and Safety Plan (DOE 1991b) and submitted with that plan. If other procedures are required, including those generated by EG&G Mound Plant or other organizations, they will be submitted for review with the area-specific Operable Unit 6 Verification Sampling and Analysis Plans.

12. CONTINGENCY PLANS

12.1. EMERGENCY CONTACTS

Persons and organizations to contact in case of emergencies at Mound Plant are given in Figure 12.1. This emergency contact form will be posted in prominent locations at the work site. An emergency notification flowchart form will be posted in prominent locations at the work site. An emergency notification flowchart is given in Figure 12.2. Additional contacts are in Appendix B. In an emergency, contacts and evacuation will be coordinated through the security or health physics escort, who will be carrying a two-way radio. Mound Plant personnel will be contacted to contain and clean up all spills and releases.

12.2. EVACUATIONS

Evacuations may be required under certain circumstances; for example, fire, explosion, release of toxic or hazardous materials, multiple injuries, tornadoes, etc. If an evacuation becomes necessary, personnel will be alerted by a vehicle horn or a portable air horn. The Site Health and Safety Officer will instruct personnel where to meet. In most circumstances, it will be upwind of the potential hazard. A head count will be taken, and all applicable emergency procedures will be followed.

12.3. CONTINGENCY PLANS

Emergency-response contingency plans in this subsection will be followed during field investigations. A copy of the activity-specific health and safety form will be available at each work site at all times. Personnel working onsite will be familiar with the activity-specific health and safety form and will sign the page at the end of that form. Evacuation plans and routes will be established on a site-specific basis and discussed with field personnel before field activities begin.

**Table XI.1. Mound Plant ER Program Standard Operating Procedures
for Health and Safety Monitoring**

SOP No.	Title
1.1	General Instructions for Field Personnel (Rev. 1)
1.6	General Equipment Decontamination (Rev. 1)
1.7	Sampling for Removable Alpha Contamination (Rev. 0)
1.8	Personnel Decontamination--Level D Protection (Rev. 0)
1.9	Personnel Decontamination--Level C Protection (Rev. 0)
1.12	Air Particulate Sampling with a Real-Time Aerosol Monitor (Rev. 0)
6.2	Health and Safety Monitoring of Organic Vapors with a Photoionization Detector (Rev. 0)
6.4	Total Alpha Surface Contamination Measurements (Rev. 0)
6.7	Near Surface and Soil Sample Screening for Low-Energy Gamma Radiation Using the FIDLER (Rev. 0)
6.11	Beta-Gamma Radiation Measurements Using a Geiger-Müller Detector (Rev. 0)
6.16	Heat Stress Monitoring (Rev. 0)

Reference: DOE 1991a
FIDLER - Field instrument for the detection of low-energy radiation

Site Health and Safety Officer—

Name: Eric Larsen/Robert Hysong Call: (513) 866-6884

WESTON's Trailers at Mound Plant— Call: (513) 866-9444

Call: (513) 866-6884

Installation Health and Safety Officer—

Name: Lane Metcalf Call: (513) 865-3924

Installation Coordinator—

Name: Richard Neff Call: (513) 865-3616

24-Hour Installation Health/Safety Coordinator— Call: Ext. 7111 onsite

FIRE— Call: Ext. 7111 onsite, 911 offsite; coordinate through the security escort.

AMBULANCE— Call: Ext. 7111 onsite, 911 offsite; coordinate through the security escort.

POISON CENTER— National Poison Control Center, (404) 588-4400, or Ext. 7111 onsite.

SECURITY— Call: Ext. 7111 onsite; coordinate through the security escort.

POLICE— Call: Ext. 7111 onsite, 911 offsite; coordinate through the security escort.

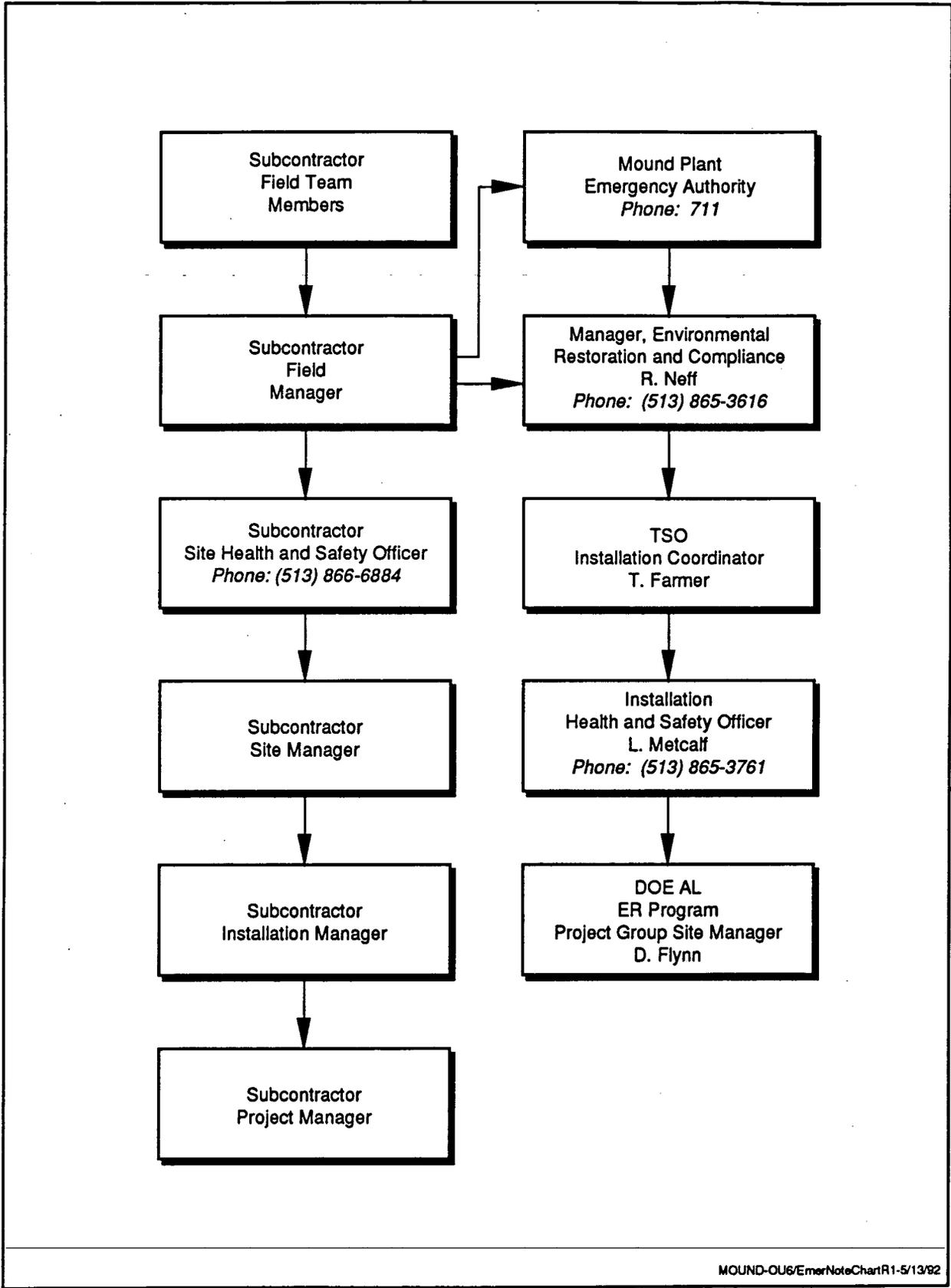
YOU ARE LOCATED AT: To be discussed at each site.

THE NEAREST TELEPHONE IS LOCATED AT: Security escort or health physics escort.

THE NEAREST EMERGENCY MEDICAL SERVICES ARE LOCATED AT:

Medical services onsite, call Ext. 7111; coordinate through the security escort.

Figure 12.1. Emergency contacts.



MOUND-OU6/EmerNoteChartR1-5/13/92

Figure 12.2. Emergency notification flow chart.

12.3.1. Fire/Explosion

A fire emergency will be handled by evacuating the work area and immediately notifying the Mound Plant fire department (ext. 7111). Only if a fire appears to be small and easily extinguishable will field personnel attempt to put out the fire with available fire extinguishers. The Mound Plant fire department will be notified of any fires. If an explosion occurs, all personnel will be evacuated, and no one will reenter the work area until it has been cleared by the Mound Plant fire department personnel.

12.3.2. Personnel Injuries

In case of minor injuries to personnel, first-aid treatment will be initiated by trained personnel in the field. First-aid treatment is available from Mound Plant paramedics (ext. 7111). In case of serious injuries, the victim will be transported to Sycamore Hospital as soon as possible. Directions to the hospital are given in the activity-specific health and safety form and will be posted with the emergency contact form at prominent locations at the work sites.

Injuries in contaminated areas require additional steps to address possible contamination of the injured person. The Site Health and Safety Officer will contact Mound Plant paramedics for injuries in potentially contaminated areas. Responses will vary, depending on the severity of the injury and the extent of contamination, and will be determined initially by the Site Health and Safety Officer and later by Mound Plant paramedics.

13. ENTRY PROCEDURES FOR CONFINED SPACES

No exceptions.

14. REFERENCES

- DOE. 1991a. "Standard Operating Procedures." Mound Plant, Environmental Restoration Program, U.S. Department of Energy, Albuquerque Operations Office, Albuquerque, NM. January 1991.
- DOE. 1991b. "Remedial Investigation/Feasibility Study, Operable Unit 9, Site-Wide Health and Safety Plan [DRAFT]." Environmental Restoration Program, U.S. Department of Energy, Albuquerque Operations Office, Albuquerque, NM. October 1991.

APPENDIX A

WESTON HEALTH AND SAFETY FORM

Prepared By: _____ Date _____ W.O.# _____

I. General Information

A. Project Identification

1. Division _____ 2. Department/Office _____
 3. Site Name _____ 4. Client _____
 5. Work Location Address _____
 (Street Address) (City) (State) (Zip)

B. Site History

1. Describe briefly: _____

C. Scope of Work

1. Describe briefly: _____

() Site Visit only, Site HASP not necessary, list personnel here & sign-off below:

D. Hazard Assessment and Regulatory Status

1. Indicate Yes (Y)/No (N) to types of hazards anticipated. () Physio-chemical; Toxic Chemical - Levels () >TLV-TWA, () >TLV-STEL, () >IDLH; () Bio-Hazards; () Radiation; () Physical; () Construction type; () Industrial type; () Nuclear Industry type

2. Site Regulatory Status: CERCLA/SARA - () U.S. EPA, () State, () NPL Site; RCRA - () U.S. EPA, () State; OSHA - () 1910, () 1926, () State; NRC - () 10 CFR 20; Other Fed. Agency - () DOE, () USATHAMA, () Air Force;

Based on the Hazard Assessment and Regulatory Status, determine the Standard HASP(s) applicable to this project. Indicate below which Standard Hasp will be used and append the appropriate pages of this Form along with the Standard Plan.

3. Standard Plan to be used: () Stack Test () Air Emissions () Asbestos () Industrial Hygiene () Life Systems () Hazardous Mat. () Construction () NRC/DOE () USATHAMA () Air Force

E. Review and Approval Documentation

1. Reviewed By: a. P.M. _____ Date: _____
 b. P.D. _____ Date: _____
 c. DSO/RSO _____ Date: _____
 d. SHSC _____ Date: _____

2. Approved By: _____ Date: _____
 () a. Corporate Health and Safety Director (CHSD)
 () b. DSO/RSO (Only with specific delegation by CHSD)

Project Start Date: _____; End Date: _____. This Site HASP must be Reissued/Reapproved for any activities conducted after: Date _____

Amendment Date(s) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____

E. KEY PERSONNEL/IDENTIFICATION OF HEALTH AND SAFETY PERSONNEL

1.0 Key Personnel

The following personnel and organizations are key to the activities at this site.

EPA Representatives

<u>Organization/Branch</u>	<u>Name/Title</u>	<u>Address</u>	<u>Telephone</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Roles and Responsibilities: _____

Other EPA Contractors & Subcontractors

<u>Organization/Branch</u>	<u>Name/Title</u>	<u>Address</u>	<u>Telephone</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Roles and Responsibilities: _____

Other Regulatory Agency Representatives

<u>Organization/Branch</u>	<u>Name/Title</u>	<u>Address</u>	<u>Telephone</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Roles and Responsibilities: _____

<u>Organization/Branch</u>	<u>Name/Title</u>	<u>Address</u>	<u>Telephone</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Roles and Responsibilities: _____

(WESTON Subcontractors)

<u>Organization/Branch</u>	<u>Name/Title</u>	<u>Address</u>	<u>Telephone</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Roles and Responsibilities: _____

2.2 Site Specific Health and Safety Personnel

The SHSC for activities to be conducted at this Site is _____

The Site Health and Safety Coordinator (SHSC) has total responsibility for ensuring that the provisions of this Site HASP are adequate and implemented in the field.

Changing field conditions may require decisions to be made concerning adequate protection programs. Therefore, the personnel assigned as SHSC's are experienced and meet the additional training requirements specified by OSHA in 29 CFR 1910.120

Qualifications: _____

Designated alternatives include: _____ and _____.

II. Health and Safety Evaluation

A. Hazard Assessment

1. Background Review: Complete () Partial () If partial, why? _____

2. Activities Covered Under this Plan

No.	Task/Subtask	Description	Schedule
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. Types of Hazards: (Place a Y/N in each () to indicate presence/absence of hazard)

- a. PhysioChemical () Flammable () Explosive () Corrosive
() Reactive () O₂ Rich () O₂ Deficient [1]*
Chemically Toxic () Inhal. () Ingest. () Cont.
() Absorb. () Carcin. () Mutagen
() Terat. () OSHA 1910.1000 Substance
() OSHA Specific Hazard. Sub. Standard, Describe _____
- b. Biological () Etiol. Agent () Other - Plant, insect, animal, [2]*
- c. Radiation Ionizing - () Internal Exposure () External exposure [3]*
Non-ionizing - () UV; () IR; () RF; () MicroW; () LASER
- d. Physical Hazards () [4]* e. Construction Activities () [5]*

* The number in the [] refers to one of the following hazard evaluation forms. Complete hazard evaluation forms for each appropriate Hazard Class.

B. Source/Location of Contaminants and Hazardous Substances

1. Directly Related to Tasks

- () Air ; () Soil
- () Other Surface ; () S. Water
- () G. Water ; () Other

2. Indirectly Related to Work - Nearby Process(s) which could affect team members:

() Client Facility; () Nearby Non-client Facility. Describe: _____

() Client briefing arranged.

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. () N/A

[b] Chemical Contaminants of Concern () N/A If present, provide following data.

Hazardous Substance/ Tasks	Physical Properties and Exposure Characteristics*	Limits PEL/TLV**	Route(s) of Exposure***/ Symptoms	Monitoring Instruments/IP+ & Response
-------------------------------	---	---------------------	--------------------------------------	--

(*) State _____
 pH ___ FP ___ LEL ___ UEL ___
 Auto.Ig ___ BP ___ MP ___
 Incompatible with - _____

Sp.Gr _____ Vap.D _____
 Vap.P _____ H2O Sol. _____
 Oth. _____, _____

(*) State _____
 pH ___ FP ___ LEL ___ UEL ___
 Auto.Ig ___ BP ___ MP ___
 Incompatible with - _____

Sp.Gr _____ Vap.D _____
 Vap.P _____ H2O Sol. _____
 Oth. _____, _____

* E = Explosive, F = Flammable, C = Corrosive, R = Reactive, W = Water reactive, O = Oxidizer, Ra = Radioactive. State = Normal physical state at site/proj. temp.

** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), LC50 or LD50 in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest LC50 or LD50 in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C= Contact, D - Direct Penetration

+ IP = Ionization Potential

[1] Chemical Hazards

[a] Identify and attach Material Safety Data Sheets for all reagent type chemicals, solutions or other materials identified as or which in normal use could produce hazardous substances used in performing tasks related to tasks related to this project. () N/A

[b] Chemical Contaminants of Concern () N/A If present, provide following data.

Hazardous Substance/ Tasks	Physical Properties and Characteristics*	Exposure Limits PEL/TLV**	Route(s) of Exposure***/ Symptoms	Monitoring % Response	Instruments/IP+
-------------------------------	---	---------------------------------	---	--------------------------	-----------------

(*) State _____
pH _____ FP _____ LEL _____ UEL _____
Auto.Ig _____ BP _____ MP _____

Incompatible with -

Sp.Gr _____ Vap.D _____
Vap.P _____ H2O Sol. _____
Oth. _____, _____

(*) State _____
pH _____ FP _____ LEL _____ UEL _____
Auto.Ig _____ BP _____ MP _____

Incompatible with -

Sp.Gr _____ Vap.D _____
Vap.P _____ H2O Sol. _____
Oth. _____, _____

* E = Explosive, F = Flammable, C = Corrosive, R = Reactive, W = Water reactive, O = Oxidizer, Ra = Radioactive. State = Normal physical state at site/proj. temp.

** Use lowest of two, if no TLV/PEL, use Toxicity data in following order: Lowest Toxic Conc. in humans (LTC-HMN), Lowest Lethal Conc. in humans (LLC-HMN), Lowest Toxic Dose in humans (LTD-HMN), Lowest Lethal Dose in humans (LLD-HMN), LC₅₀ or LD₅₀ in humans, the Lowest Toxic Concentration or Lowest Toxic Dose in animals, the lowest LC₅₀ or LD₅₀ in animals.

*** I = Inhalation, G = Ingestion, S = Skin Absorption, C = Contact, D - Direct Penetration

+ IP = Ionization Potential

[2] Biological Hazards Of Concern

No.	Hazard	(Y/N)	Location/ Route of			Team	
			Task No. (s)*	Source (K,S)**	Exposure (I,G,C,D)+	Member(s) Allergic?	Immunization Required?
1.	Poisonous Plants	()					
2.	Insects	()					
3.	Snakes, Reptiles	()					
4.	Animals	()					
5.	Sewage	()					
6.	Etiologic Agents	() (List)					

*List all task Nos. which would involve potential exposure to these hazard(s).
 ** K = Known, S = Suspect. + I = Inhalation, G = Ingestion, C = Contact,
 D = Direct Penetration (Bite, Inject., Open wound or sore)

[3] Radiation Hazards of Concern

TYPE

1. Ionizing

Radionuclide	Location/ Source	Type Emitter	Task No. (s)	Exposure Limits	Protection Protocol Reference
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

2. Non-ionizing

Radionuclide	Location/ Source	Type Emitter	Task No. (s)	Exposure Limits	Protection Protocol Reference
Ultra Violet	_____	_____	_____	_____	_____
Infra Red	_____	_____	_____	_____	_____
Microwave	_____	_____	_____	_____	_____
Radio-Freq.	_____	_____	_____	_____	_____
LASER	_____	_____	_____	_____	_____

[4] Physical Hazards of Concern

	Hazard (Y/N)	Task No. (s)	Protection OP(s) Attached
1.	Noise	()	_____
2.	Heat - ambient air	()	_____
	- Hot Process - Steam	()	_____
	- Hot Process - LT3	()	_____
	- Hot Process - Incin.	()	_____
3.	Cold	()	_____
4.	Rain	()	_____
5.	Snow	()	_____
6.	Electric Storms	()	_____
7.	Confined Space Entry	()	_____
8.	"Hot Work"	()	_____
9.	Heavy Manual Lifting/Moving	()	_____
10.	Rough Terrain	()	_____
11.	Housekeeping	()	_____
12.	Structural Integrity	()	_____
13.	Neighborhood	()	_____
14.	Remote Area	()	_____
15.	Compressed Gases	()	_____
16.	Diving	()	_____
17.	Using Boats	()	_____
18.	Working over Water	()	_____
19.	Traffic	()	_____
20.	Explosives	()	_____
21.	Heavy Equipment Operation	()	_____
22.	Lifting Equipment Operation.	()	_____
	- Cranes,	()	_____
	- Manlifts	()	_____
23.	Working at Elevation	()	_____
24.	Using Ladders	()	_____
25.	Using Scaffolding	()	_____
26.	Excavating/Trenching	()	_____
27.	Materials Handling	()	_____
28.	Haz. Mat. Use/Storage	()	_____
	- flam.liq./gases	()	_____
	- oxidizers	()	_____
	- corrosives	()	_____
29.	Fire Prevent/Response plan required	()	_____
30.	Fire Extinguishers required	()	_____
31.	Demolition	()	_____
32.	Utilities - Underground	()	_____
	- Overhead	()	_____
33.	Electrical- General	()	_____
	- High Voltage	()	_____
34.	Welding/cutting/burning	()	_____
35.	Hand tools	()	_____
36.	Power Hand Tools	()	_____
37.	High Pressure Water	()	_____
38.	Other _____	()	_____
39.	Other _____	()	_____
40.	Other _____	()	_____

TASK BY TASK RISK ANALYSIS

The preceding Tables identify the hazards known or suspected to be present in accomplishing the tasks involved in this project.

Section II A. 2. of this HASP describes the background of this site/project and identifies the tasks involved.

Below briefly describe each task and the likelihood of exposure to the hazards identified and the protective protocols to be used.

1.

III. Personnel Protection Plan

A. Engineering Controls

1. Describe Engineering Controls used as part of Personnel Protection Plan:

Task(s)

B. Administrative Controls

1. Describe Administrative controls used as part of Personnel Protection Plan:

Task(s)

C. Personnel Protective Equipment •

1. Action Levels for Changing Levels of Protection

(1) Task No.(s) Define Action Levels for up or down grade for each task

c. Description of Levels

Task(s)

	_____	_____
	Level D	Level D
Head	() _____	() _____
Eye & Face	() _____	() _____
Hearing	() _____	() _____
Arms & Legs only	() _____	() _____
Whole Body	() _____	() _____
Apron	() _____	() _____
Hand - gloves	() _____	() _____
- gloves	() _____	() _____
- gloves	() _____	() _____
Foot - Boots	() _____	() _____
- Boots	() _____	() _____
- Boots	() _____	() _____

Task(s)

Level ____

Level ____

Head	() _____	() _____
Eye & Face	() _____	() _____
Hearing	() _____	() _____
Arms & Legs only	() _____	() _____
Whole Body	() _____	() _____
Apron	() _____	() _____
Hand - gloves	() _____	() _____
- gloves	() _____	() _____
- gloves	() _____	() _____
Foot - Boots	() _____	() _____
- Boots	() _____	() _____
- Boots	() _____	() _____
APR - Neg. Pres.	() _____	() _____
Half Face	() _____	() _____
Cart./Canister	() _____	() _____
Full Face	() _____	() _____
Cart./Canister	() _____	() _____
PAPR	() _____	() _____
Cart./Canister	() _____	() _____
Type C	() _____	() _____
SAR - Airline	() _____	() _____
SCBA	() _____	() _____
Comb. Airline/SCBA	() _____	() _____
Cascade Syst.	() _____	() _____
Compressor	() _____	() _____
Fall Protection	() _____	() _____
Floatation	() _____	() _____
_____	() _____	() _____

Task(s)

Level _____

Level _____

Head

() _____

() _____

Eye & Face

() _____

() _____

Hearing

() _____

() _____

Arms & Legs only

() _____

() _____

Whole Body
Apron

() _____

() _____

() _____

() _____

Hand - gloves
- gloves
- gloves

() _____

() _____

() _____

() _____

() _____

() _____

Foot - Boots
- Boots
- Boots

() _____

() _____

() _____

() _____

() _____

() _____

APR - Neg. Pres.

() _____

() _____

Cart./Canister

() _____

() _____

Full Face

() _____

() _____

Cart./Canister

() _____

() _____

PAPR

() _____

() _____

Cart./Canister
Type C

() _____

() _____

() _____

() _____

SAR - Airline

() _____

() _____

SCBA

() _____

() _____

Comb. Airline/SCBA

() _____

() _____

Cascade Syst.

() _____

() _____

Compressor

() _____

() _____

Fall Protection

() _____

() _____

Floatation

() _____

() _____

() _____

() _____

IV. Site or Project Hazard Monitoring Program

A. Direct Reading Air Monitoring Instruments

1. Instrument Selection & Initial Check Record

	No.	Task No.(s)	Instrument Checked Upon Receipt	Initials
CGI	()	_____	() _____	_____
O ₂	()	_____	() _____	_____
CGI/O ₂	()	_____	() _____	_____
CGI/O ₂ /tox-PPM,H ₂ S,H ₂ S/CO	()	_____	() _____	_____
RAD-GM,	()	_____	() _____	_____
- NaI	()	_____	() _____	_____
- ZnS	()	_____	() _____	_____
- OTHER _____	()	_____	() _____	_____
PID	()	_____	() _____	_____
- HNU 10.2	()	_____	() _____	_____
- HNU 11.7	()	_____	() _____	_____
- HNU 9.5,	()	_____	() _____	_____
- PHOTOVAC, TMA, OTHER	()	_____	() _____	_____
FID	()	_____	() _____	_____
- FOX-128	()	_____	() _____	_____
- FOX 128GC	()	_____	() _____	_____
- HEATH, AID, OTHER _____	()	_____	() _____	_____
RAM, Mini-RAM, Other _____	()	_____	() _____	_____
MONITOX-HCN	()	_____	() _____	_____
H ₂ S	()	_____	() _____	_____
COCL,	()	_____	() _____	_____
SO ₂	()	_____	() _____	_____
OTHER _____	()	_____	() _____	_____
Bio-Aerosol Monitor	()	_____	() _____	_____
Detector Tubes	()	_____	() _____	_____
Pump - MSA, Draeger, Sensidyne	()	_____	() _____	_____
- Tubes (No.)/type	()	_____	() _____	_____
- Tubes (No.)/type	()	_____	() _____	_____

Reporting Format _____ 1. Field notebook. _____ 2. Field data sheets. _____ 3. Air
 monitoring log. _____ 4. Trip report _____ 5. Other:

Site Air Monitoring Program

Air Monitoring Instrument _____

Air Monitoring Frequency	Tasks
1. Periodically _____	_____
2. Periodically _____	_____
3. Continuous	
4. Other: _____	

Monitoring Locations	Tasks
1. Upwind/downwind of site activities.	_____
2. Near residents, etc.	_____
3. Key site activity locations:	
_____ decon area	_____
_____ staging area	_____
_____ excavation area	_____
_____ field lab area	_____
_____ storage tanks	_____
_____ lagoons	_____
_____ drums	_____
4. Fixed stations	
5. Other: _____	

Air Monitoring Instrument _____

Air Monitoring Frequency	Tasks
1. Periodically _____	_____
2. Periodically _____	_____
3. Continuous	
4. Other: _____	

Monitoring Locations	Tasks
1. Upwind/downwind of site activities.	_____
2. Near residents, etc.	_____
3. Key site activity locations:	
_____ decon area	_____
_____ staging area	_____
_____ excavation area	_____
_____ field lab area	_____
_____ storage tanks	_____
_____ lagoons	_____
_____ drums	_____
4. Fixed stations	
5. Other: _____	

D. Action Levels

_____ 1. Explosive atmosphere:	Tasks: _____
<u>Action Level</u>	<u>Action</u>
<10% LEL	Continue investigation
10%-25% LEL	Continue on-site monitoring with extreme caution as higher levels are encountered.
>25% LEL	Explosion hazard. Withdraw from area immediately.
_____ 2. Oxygen:	Tasks: _____
<u>Action Level</u>	<u>Action</u>
<19.5%	Monitor wearing SCBA.
	NOTE: Combustible gas readings may not be valid in atmospheres with <19.5% oxygen.
19.5%-25%	Continue investigation with caution, as Oxygen levels > 21% require extreme caution. Other than normal level may be due to presence of other substances.
>25%	Fire hazard potential. Stop work and Consult a fire safety specialist.
_____ 3. Radiation:	Tasks: _____
<u>Action Level</u>	<u>Action</u>
3 x Bkg - <2 mR/hr	Radiation above background levels (normally 0.01-0.02 mR/hr) signifies possible source(s) radiation present.
	Continue investigation with caution. Perform thorough monitoring. Consult with a health physicist.
> 2 mrem/hr	Potential radiation hazard. Evacuate site. Continue investigation only upon the advice of a health physicist.
_____ 4. Organic gases and vapors:	
_____ 5. Inorganic gases and vapors:	
<u>Action Level</u>	<u>Action</u>
Depends on chemical	Consult standard reference manuals for air concentration/toxicity data. Action level depends on PEL/REL/TLV.

These Action Levels, if not defined by regulation, is some percent (usually 50%) of the applicable PEL/REL/TLV. That number must also be adjusted to account for instrument response factors.

Ambient Air Sampling - Decision Logic and action levels to institute Air Sampling

___ No air sampling is required on this site.

___ An air sampling plan is incorporated in this HASP.

Check situations which will require or action levels which will apply to deciding to institute or increase scope of planned air sampling.

Meteorological conditions:

- ___ a. Dry weather for ___ days. ___ b. ambient temperature above ___ °F.
___ c. Wind increasing potential of more contaminant dispersion in or migration out of controlled area.

Activities which will require instituting or increasing scope of air sampling:

- ___ a. major spills
___ b. new site activity resulting in potential presence of new chemical hazards.
___ c. site activity increases airborne contaminants possibilities.
___ d. Air sampling documentation required for:
 ___ Downgrading from stipulated level of protection.
 ___ Documenting no migration of contaminants off site through air

Applicable Action Levels for instituting Air Sampling: (Check as Appropriate)

- ___ a. Visible vapor/gas clouds or vapors levels, or
___ b. Visible dust or particulate levels measured with Direct Reading Instrument, two - three times background or above action level, sustained over 10-15 minute period.

- 1) Sampling Matrix/air interface - Monitor matrix/air interface and breathing zone periodically with DRI, if Vapor levels > 2-3 times background, monitor continuously, ~~filw~~ No. 4.
- 2) Container opening - Monitor opening and breathing zone periodically with DRI, if Vapor levels > 2-3 times background, monitor opening and breathing zone continuously, follow No. 4.
- 3) Excavation/Drilling/Intrusive work - Monitor at ground level and breathing zone periodically with DRI, if Vapor levels > 2-3 times background, monitor opening and breathing zone continuously, follow No. 4.
- 4) Breathing zone - Ensure level of protection specified in HASP is being used. Consult HASP or Corporate Health and Safety relative to instituting personnel, area or perimeter Sampling.

Other: _____

B. Sample Location

_____	1.	Ambient background - Locations:	Substances Sampled for
	a.	_____	_____
	b.	_____	_____
_____	2.	Personal samples, on-site - Locations	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____
	d.	_____	_____
	e.	_____	_____
	f.	_____	_____
_____	3.	Personal samples, off-site - Locations	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____
	d.	_____	_____
_____	4.	Fixed on-site samples - Locations:	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____
	d.	_____	_____
	e.	_____	_____
	f.	_____	_____
_____	5.	Fixed off-site samples - Locations:	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____
	d.	_____	_____
	e.	_____	_____
_____	6.	Mobile off-site samples - Locations:	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____
_____	7.	Mobile on-site samples - Locations:	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____
_____	8.	Background sample stations - Locations	
	a.	_____	_____
	b.	_____	_____
	c.	_____	_____

B. Air Sampling

1. Personal Sampling Pumps - Gilian,SKC,MSA

No. ()

Sampling Media - Sorbent Tubes

<u>Task(s)</u>	<u>Location</u>	<u>Duration</u>	<u>Frequency</u>	<u>Type</u>	<u>Anal. Meth.</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sampling Media - Filter

<u>Task(s)</u>	<u>Location</u>	<u>Duration</u>	<u>Frequency</u>	<u>Type</u>	<u>Anal. Meth.</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sampling Media - Impinger

<u>Task(s)</u>	<u>Location</u>	<u>Duration</u>	<u>Frequency</u>	<u>Type</u>	<u>Anal. Meth.</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sampling Media - Air Bag

<u>Task(s)</u>	<u>Location</u>	<u>Duration</u>	<u>Frequency</u>	<u>Type</u>	<u>Anal. Meth.</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

2. Hi-Volume Pumps

Sampling Media - Filter

<u>Task(s)</u>	<u>Location</u>	<u>Duration</u>	<u>Frequency</u>	<u>Type</u>	<u>Anal. Mech.</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

3. Portable Gas Chromatograph Task(s): _____ Type: _____

Portable GC Analytical Plan: _____

4. Passive Dosimeters

		<u>Task(s)</u>	<u>Type</u>	<u>Location</u>	<u>Frequency</u>	<u>Duration</u>
Organic Vapor	()	_____	_____	_____	_____	_____
Mercury Vapor	()	_____	_____	_____	_____	_____
Paper Color Change	()	_____	_____	_____	_____	_____
TLD	()	_____	_____	_____	_____	_____
Film Badge	()	_____	_____	_____	_____	_____
Liquid Media	()	_____	_____	_____	_____	_____

5. Wipe Sampling

a. Wipe Sampling Plan _____

C. Physical Hazard and Miscellaneous Monitors and Detectors

	Task(s)	Calibration RQD? Method	Location	Frequency
SOUND LEVEL METER	()	()		
NOISE DOSIMETER(s)	()	()		
OCTAVE BAND ANALYZER.	()	()		
LIGHT METER	()	()		
ELECTRIC CIRC. DETECTOR	()	()		
Thermometer	()	()		
Wind Speed Indic.	()	()		
Barometer	()	()		
Psychrometer	()	()		
Infra Red Thermom.	()	()		
Micro Wave Detector	()	()		
pH METER	()	()		

D. Indicator Kits

	Task(s)	Location	Frequency
pH PAPER	() _____	_____	_____
PEROXIDE PAPER	() _____	_____	_____
CHLOR-N-OIL KIT	() _____	_____	_____
HAZARD CATEGORIZING KIT	() _____	_____	_____
ASBESTOS TEST KIT	() _____	_____	_____

G. Work Location Instrument Readings

Location: _____

% LEL _____; % O₂ _____; PID ppm _____

FID ppm _____ Aerosol Monitor mg/M³ _____

GM: Shield Probe/Thin Window - mR/hr _____;cpm _____

NaI _____ uR/hr; ZnS _____ cpm

(Monitox)ppm: () _____; () _____;

() _____; () _____;

(Detector Tube)(s): () _____; () _____;

() _____; () _____; () _____

Sound Levels _____ dBA;
_____ dBA

Illumination _____ pH _____ Other _____ Other _____ Other _____

Location _____

% LEL _____; % O₂ _____; PID ppm _____

FID ppm _____ Aerosol Monitor mg/M³ _____

GM: Shield Probe/Thin Window - mR/hr _____;cpm _____

NaI _____ uR/hr; ZnS _____ cpm

(Monitox)ppm: () _____; () _____;

() _____; () _____;

(Detector Tube)(s): () _____; () _____;

() _____; () _____; () _____

Sound Levels _____ dBA;
_____ dBA

Illumination _____ pH _____ Other _____ Other _____ Other _____

IV. DECONTAMINATION PLAN

1. Personnel Decontamination

Section III C. lists the tasks and specific levels of protection required for each. Consistent with the levels of protection required, step by step procedures for personnel decontamination for each Level of Protection are attached.

2. Levels of Protection Required for Decontamination Personnel

The levels of protection required for personnel assisting with decontamination will be [___ Level B, ___ Level C, ___ Level D].

(CHECK) Modifications include: _____

3. Disposition of Decontamination Wastes

(Provide a description of waste disposition including identification of storage area, hauler, and final disposal site if applicable.)

4. Equipment Decontamination

A procedure for decontamination steps required for non-sampling equipment and heavy machinery follows: _____

5. Sampling Equipment Decontamination

Sampling equipment will be decontaminated in accordance with the following procedure: _____

V. Contingencies

A. Emergency Contacts and Phone Numbers

<u>Agency</u>	<u>Contact</u>	<u>Phone Number</u>
Local Medical Emergency Facility	_____	_____
WESTON Medical Emergency Contact	AGATHA	(513) 421-3063
WESTON Health and Safety	_____	(215) 430-7406
Fire Department	_____	_____
Police Department	_____	_____
On Site Coordinator	_____	_____
Site Telephone	_____	_____
Nearest Telephone	_____	_____
	(Location)	

B. LOCAL MEDICAL EMERGENCY FACILITY(S)

1. Primary

Name of Hospital: _____

Address: _____ Phone No. _____

Name of Contact _____ Phone No. _____

Type of Service - Physical Trauma only () Chemical Exposure only
() Physical Trauma & Chemical Exposure () Available 24 Hours ()

Route to Hospital: (Attach Map) _____

Travel Time From Site (Minutes): _____
Distance to Hospital (Miles): _____
Name/No. of 24 Hr. Ambulance Service: _____

2. Secondary or Specialty Services Provider

Name of Hospital: _____

Address: _____ Phone No. _____

Name of Contact _____ Phone No. _____

Type of Service - Physical Trauma only () Chemical Exposure only
() Physical Trauma & Chemical Exposure () Available 24 Hours ()

Route to Hospital: (Attach Map): _____

Travel Time From Site (Minutes): _____
Distance to Hospital (Miles): _____
Name/No. of 24 Hr. Ambulance Service: _____

V. Contingencies (Continued)

C. Response Plans

1. Medical - General

2. Special First Aid Procedures
Hydrofluoride on site () Y/N

a. First Aid Kit - Type

Location

Cyanides on site () Y/N

b. Eyewash required () Y/N

Location

Location

c. Safety Shower

Location

Location

3. Plan for Response to Fire/Explosion

4. Fire extinguisher

a. Type

b. Location

5. Plan for Response to Spill/Release

6. Spill Response Gear

Description

Location

6. Plan for Response to Security Problems

VI. Site Personnel and Certification Status

A. WESTON

Name	Title	Task(s)	Medical Current a.	Fit Test Current		Training Current c.	Certification Level or Description
				Qual b.	Quant. b.		
1.			()	()	()	()	(
2.			()	()	()	()	(
3.			()	()	()	()	(
4.			()	()	()	()	(
5.			()	()	()	()	(
6.			()	()	()	()	(
7.			()	()	()	()	(
8.			()	()	()	()	(
9.			()	()	()	()	(
10.			()	()	()	()	(
Site Health and Safety Coordinator (SHSC)							
11.			()	()	()	()	(

- (a) Training - All personnel, including visitors, entering the exclusion or contamination reduction zones must have certifications of completion of training in accordance with OSHA 29 CFR 1910.29, CFR 1926/1910 or 20 CFR 1910.120.
- (b) Respirator Fit Testing - All persons, including visitors, entering any area requiring the use or potential use of any negative pressure respirator must have had as a minimum, a qualitative fit test, administered in accordance with OSHA 20 CFR 1910.134 or ANSI within the last 12 months. If site conditions require the use of a full face negative pressure, air purifying respirator for protection from Asbestos or Lead, employees must have had a quantitative fit test, administered according to OSHA 20 CFR 1910.1002 or 1025 within the last 6 months.
- (c) Medical Monitoring Requirements - All personnel, including visitors, entering the exclusion or contamination reduction zones must be certified as medically fit to work, and to wear a respirator, if appropriate, in accordance with 29 CFR 1910, 20 CFR 1926/1910 or 29 CFR 1910.120.

The Site Health and Safety Coordinator is responsible for verifying all certifications and fit tests.

B. Subcontractor's Health and Safety Program Evaluation

Name and address of subcontractor: _____

Activities to be conducted by subcontractor: _____

EVALUATION CRITERIA

Item	Acceptable	Unacceptable	Comments
Medical Program meets OSHA/WESTON Criteria	()	()	_____
Personal Protective Equipment Available:			
a. meets OSHA criteria,	()	()	_____
b. is as specified in WLHASP	()	()	_____
On-Site Monitoring Equipment Available, Calibrated and Operated Properly	()	()	_____
Safe Working Procedures Clearly Specified	()	()	_____
Training meets OSHA/WESTON Criteria	()	()	_____
Emergency Procedures	()	()	_____
Decontamination Procedures	()	()	_____
General Health and Safety Program Evaluation	()	()	_____

Additional Comments: _____

Evaluation conducted by: _____ Date: _____

C. Subcontractor

Name	Title	Task(s)	Medical Current a.	Fit Test Current Qual. b.	Quant. b.	Training Current c.	Certification Level or Description
1.			()	()	()	()	()
2.			()	()	()	()	()
3.			()	()	()	()	()
4.			()	()	()	()	()
5.			()	()	()	()	()
6.			()	()	()	()	()

VII. HEALTH AND SAFETY PLAN APPROVAL/SIGN OFF FORMAT

1. Site Name _____ 2. WO# _____

Work Location Address:

I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

Site Safety
Coordinator

Signature

Date

Name

Signature

Date

VIII. Training and Briefing Topics

The following items will be covered at the site specific training meeting, daily or periodically.

Site
Specific
Training
Meeting

Daily

Periodically

<u>Site Specific Training Meeting</u>	<u>Daily</u>	<u>Periodically</u>
_____	_____	_____ Site characterization and analysis, Sec. 3.0, 29 CFR 1910.120 i.
_____	_____	_____ Physical hazards, Table 3.2.
_____	_____	_____ Chemical hazards, Table 3.1.
_____	_____	_____ Animal bites, stings and poisonous plants.
_____	_____	_____ Etiologic (Infectious) agents.
_____	_____	_____ Site control, Sec. 8.0; 29 CFR 1910.120 d.
_____	_____	_____ Engineering controls and work practices, Sec. 8.5; 29 CFR 1910.120 g.
_____	_____	_____ Heavy machinery.
_____	_____	_____ Forklift
_____	_____	_____ Backhoe
_____	_____	_____ Equipment
_____	_____	_____ Tools
_____	_____	_____ Ladder 29 CFR 1910.27 d.
_____	_____	_____ Overhead and underground utilities
_____	_____	_____ Scaffolds
_____	_____	_____ Structural Integrity
_____	_____	_____ Unguarded openings - wall, floor, ceilings (?).
_____	_____	_____ Pressurized Air Cylinders
_____	_____	_____ Personnel protective equipment, Sec. 5.0; 29 CFR 1910.120 g; 29 CFR 1910.134.
_____	_____	_____ Respiratory Protection Sec. 5.8; 29 CFR 1910.120 g; 288.2-1980.

Site
Specific
Training

Meeting Daily

Periodically

_____	_____	_____	Level A
_____	_____	_____	Level B
_____	_____	_____	Level C
_____	_____	_____	Level D
_____	_____	_____	Monitoring, Sec. 7.0; 29 CFR 1910.120 h.
_____	_____	_____	Decontamination, Sec. 9.0; 29 CFR 1910.120 k.
_____	_____	_____	Emergency Response, Sec. 10.0; 29 CFR 1910.120 l.
_____	_____	_____	Elements of an Emergency Response, Sec. 100; 29 CFR 1910.120 l.
_____	_____	_____	Procedures for Handling Site Emergency Incidents, Sec. 10.0; 29 CFR 1910.120 l.
_____	_____	_____	Off-site emergency response, 29 CFR 1910.120 l.
_____	_____	_____	Handling drums and containers, 29 CFR 1910.120 j.
_____	_____	_____	Opening Drums and Containers
_____	_____	_____	Electrical Material Handling Equipment.
_____	_____	_____	Radioactive Waste
_____	_____	_____	Shock sensitive waste
_____	_____	_____	Laboratory waste packs.
_____	_____	_____	Sampling drums and containers
_____	_____	_____	Shipping and transport, 49 CFR 172.101
_____	_____	_____	Tank and vault procedures
_____	_____	_____	Illumination, 29 CFR 1910.120 m.
_____	_____	_____	Sanitation, 29 CFR 1910.120 n.

[Check indicated Functions or add steps as necessary]

STEP	FUNCTION	DESCRIPTION OF PROCESS, SOLUTION AND CONTAINER
------	----------	---

- | | | |
|-----|--|-------|
| () | Segregated equipment drop | _____ |
| () | Boot cover and glove wash | _____ |
| () | Boot cover and glove rinse | _____ |
| () | Tape removal - outer glove
and boot | _____ |
| () | Boot cover removal | _____ |
| () | Outer glove removal | _____ |

-----HOT LINE-----

- | | | |
|-----|------------------------|-------|
| () | Suit/safety boot wash | _____ |
| () | Suit/boot/glove rinse | _____ |
| () | Safety boot removal | _____ |
| () | Suit Removal | _____ |
| () | Inner glove wash | _____ |
| () | Inner glove rinse | _____ |
| () | Inner glove removal | _____ |
| () | Inner clothing removal | _____ |

-----CRC/SAFE ZONE BOUNDARY-----

- | | | |
|-----|------------|-------|
| () | Field wash | _____ |
| () | Redress | _____ |

DISPOSAL PLAN:

END OF DAY: _____

END OF WEEK: _____

END OF PROJECT: _____

Attachment 2. LEVEL C DECONTAMINATION

[Check indicated Functions or add steps as necessary]

STEP	FUNCTION	DESCRIPTION OF PROCESS, SOLUTION AND CONTAINER
()	Segregated equipment drop	_____
()	Boot cover and glove wash	_____
()	Boot cover and glove rinse	_____
()	Tape removal - outer glove/boot	_____
()	Boot cover removal	_____
()	Outer glove removal	_____

-----HOT-LINE-----

()	Suit/safety boot wash	_____
()	Suit/boot/glove rinse	_____
()	Safety boot removal	_____
()	Suit Removal	_____
()	Inner glove wash	_____
()	Inner glove rinse	_____
()	Face piece removal	_____
()	Inner glove removal	_____
()	Inner clothing removal	_____

-----CRC/SAFE ZONE BOUNDARY-----

()	Field wash	_____
()	Redress	_____

DISPOSAL PLAN:
END OF DAY: _____

END OF WEEK: _____

END OF PROJECT: _____

Attachment 3. LEVEL B DECONTAMINATION

[Check indicated Functions or add steps as necessary]

STEP	FUNCTION	DESCRIPTION OF PROCESS, SOLUTION AND CONTAINER
()	Segregated equipment drop	_____
()	Boot cover and glove wash	_____
()	Boot cover and glove rinse	_____
()	Tape removal - outer glove/boot	_____
()	Boot cover removal	_____
()	Outer glove removal	_____

-----HOT LINE-----

()	Suit/safety boot wash	_____
()	Suit/SCBA/boot/glove rinse	_____
()	Safety boot removal	_____
()	Remove SCBA backpack w/o disconnecting	_____
()	Splash suit removal	_____
()	Inner glove wash	_____
()	Inner glove rinse	_____
()	SCBA Disconnect & Face piece removal	_____
()	Inner glove removal	_____
()	Inner clothing removal	_____

-----CRC/SAFE ZONE BOUNDARY-----

()	Field wash	_____
()	Redress	_____

DISPOSAL PLAN:

END OF DAY: _____

END OF WEEK: _____

END OF PROJECT: _____

Attachment 4. LEVEL A DECONTAMINATION

STEP	FUNCTION	DESCRIPTION OF PROCESS, SOLUTION AND CONTAINERS
------	----------	--

- () Segregated equipment drop _____
- () Boot cover and glove wash _____
- () Boot cover and glove rinse _____
- () Tape removal - outer glove and boot _____
- () Boot cover removal _____
- () Outer glove removal _____

-----HOT-LINE-----

- () Suit/safety boot wash _____
- () Suit/safety boot rinse _____
- () Safety boot removal _____
- () Fully encapsulating suit/hard hat remove _____
- () SCBA backpack removal _____
- () Inner glove wash _____
- () Inner glove rinse _____
- () Face piece removal _____
- () Inner glove removal _____
- () Inner clothing removal _____

-----CRC/SAFE ZONE BOUNDARY-----

- () Field wash _____
- () Redress _____

DISPOSAL PLAN:

END OF DAY: _____

END OF WEEK: _____

END OF PROJECT: _____



F - OU 5
HEALTH &
SAFETY PLAN

June 14, 1993

513.930607.504

Mr. Monte Williams
EG&G Mound Applied Technologies
P.O. Box 3000
Miamisburg, Ohio 45343-3000

Reference: BOA 52264, Requirements Task Order 62033

Subject: Task Order 006, Health and Safety Plan Review

Dear Mr. Williams:

In accordance with Task Order 62033, this letter and its enclosure presents SAIC's Phase 2 comments and changes made to the OU5 and OU6 addenda with respect to the review of Operable Unit (OU) 9 Health and Safety Plan.

As previously discussed, the addenda to the OU9 Health and Safety Plan will allow SAIC personnel to perform work at Mound within the guidelines established for their protection. The addenda will be used in conjunction with site-specific health and safety plans for future task orders.

If you have any questions, please do not hesitate to contact me at (513)429-6582 or Teresa Fort at (513)429-6756.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Steven W. Coyle
Project Manager

cc: Enclosure
M. Balmert
T. Fort
M. Giordano
D. Reed
M. Walsh
Jim Rigano - EG&G
Rich Royer - EG&G
Bob Stanley - EG&G

1321 Research Park Drive, Dayton, Ohio 45432-2817 (513) 429-6500

Other SAIC Offices: Albuquerque, Boston, Colorado Springs, Huntsville, Las Vegas, Los Angeles, McLean, Oak Ridge, Orlando, Palo Alto, San Diego, Seattle, and Tucson

**SAIC REVIEW COMMENTS ON THE MOUND PLANT OU9
HEALTH AND SAFETY PLAN**

(RI/FS, OU9 SITE-WIDE HEALTH AND SAFETY PLAN,
DRAFT FINAL, REVISION 0, OCTOBER 1992)

SAIC General Comments

1. Since the OU9 HSP was written as a site-wide health and safety plan encompassing several specific and separate investigations conducted at Mound Plant, including areas immediately adjacent to Mound Plant, and on a regional basis (20-mile radius), it would be more effective if it were developed as an Environmental Restoration (ER) Health and Safety Program Plan incorporating Mound Plant specific requirements i.e., Medical Surveillance Program, Emergency Response Plans, Spill Contingency Plans, etc. OU specific HSPs would be developed to supplement the OU9 HSP Program. Additionally, OU specific HSPs would include the requirements as outlined in 29 CFR 1910.120(b)(4) as well as subcontractor (e.g., SAIC, ICF/Kaiser, or Weston) program requirements deemed more stringent than the EG&G Mound Plant OU9 HSP Program requirements.

Recommendation: The OU9 HSP should reflect ER health and safety program requirements and include appropriate EG&G Mound Plant health and safety policies.

SAIC Specific Comments

1. The OU9 HSP introduction does not mention pre-entry site briefings, spill containment, and confined space entry procedures as bullet item topics to be covered in the HSP. These topics address important health and safety requirements. The additional bullet items have been added to the introductory section of the SAIC OU specific HSPs where a listing of topics to be covered was used as the format.
2. Weston titles as presented throughout the HSP are not the same as SAIC titles. SAIC also requires additional responsibilities of key individuals. For example, the SHSC is also responsible for conducting an audit prior to commencing field activities to ensure all hazards have been identified and can be controlled, reporting to the Health and Safety Manager, and ensuring a buddy system is in place before work begins. SAIC titles and additional responsibilities have been added to the OU5 and OU6 HSPs.

3. Section 4 of the OU9 HSP does not discuss other hazards as required by SAIC such as falls, noise, heat/cold stress, excavating/trenching, entanglement, electrocution, vibration and heavy lifting. The task specific analyses do not adequately address some of the tasks (i.e., vehicular traffic and congested utilities pose hazards equally significant as cuts and bruises to drillers and samplers). Also, a task analysis for air sampling was added since the sampling individual is exposed to hazards such as trips and falls, noise, entanglement and electrocution. The additional hazards and task specific analyses have been added to Section 4 of the OU5 and OU6 HSPs.
4. Section 5 of the OU9 HSP does not incorporate applicable SAIC training requirements such as Hazard Communication, DOE Occurrence Reporting, confined space entry and lock out/tag out training. Applicable SAIC training requirements have been added to Section 5 of the OU5 and OU6 HSPs. Also, site specific training requirements have been/will be added to the site specific requirements for areas within OU5 and OU6.
5. Section 6 of the OU9 HSP lists personal protective equipment requirements for Levels D and C only. Additionally Tyvek is listed as adequate protection for Level C clothing. The requirement for Level C at greater than or equal to the derived air concentration (DAC) in the 6.2 table has been updated by DOE. Level B personal protective equipment requirements were added to OU5 and OU6 HSPs. References to the use of Tyvek suits for Level C were replaced with a reference for the use of chemically protective suits. Level C protective requirements as related to the DAC in the table in Section 6.2 were revised to read one tenth the DAC or 100 times the appropriate values given in Table VIII.2 of the latest revisions of the OU5 and OU6 HSPs. Justifications for the different protective levels were also included in Section 6 of OU5 and OU6 HSPs.
6. SAIC requires medical surveillance and records retention to be covered in greater detail than discussed in Section 7 of the OU9 HSP. OU5 and OU6 HSPs were modified to include additional medical examination program requirements and records retention procedures per SAIC policy.
7. Section 8 of the OU9 HSP should discuss the point of contact for the Thermoluminescent Dosimeters (TLD) issuance program. Also, a reference is made to, and a table is used from the Nuclear Regulatory Committee (NRC) Guide 1.86. The Department of Energy (DOE) has published the Radiological Control Manual (RCM) which contains the revised table. Furthermore, SAIC requires the discussions of calibration and maintenance requirements for monitoring equipment. Section 8 of the OU5 and OU6 HSPs were modified to include the discussion of the Mound Plant Health Physics department management of the TLDs. References to and the updated table in the DOE RCM document were added to replace the reference to and table from the NRC Guide. A subsection on monitoring equipment maintenance and calibration was added to OU5 and OU6 HSPs.

8. SAIC requires the use of a buddy system for work in hazardous or contaminated areas. The OU9 HSP does not discuss the use of a buddy system in these areas; therefore, requirements and an explanation of the buddy system were added to Section 9 of the OU5 and OU6 HSPs.
 9. The Emergency Contacts Figure and The Notification Flow Chart Figure in Section 12 of the OU9 HSP are not appropriate for SAIC. Also, this section does not discuss spill control measures, emergency equipment, and additional personal injury reporting criteria (as required by SAIC). The Emergency Contacts and Notification Flow Chart Figures were modified to include the appropriate SAIC personnel and phone numbers. Also subsections were added to the OU5 and OU6 HSPs to discuss spill control measures, emergency equipment, and SAIC personal injury reporting criteria. The emergency numbers need to be changed from 7111 to 911 or 865-4040.
 10. Section 13 of the OU9 HSP should include the new Confined Space Entry Procedures effective April 15, 1993 per 29 CFR 1910.146 and EG&G Mound Plant M-11 requirements. Section 13 of OU5 and OU6 HSPs was rewritten to include the new OSHA and EG&G Mound Plant requirements.
 11. The OU9 HSP does not discuss waste or records management (as required by SAIC). Sections addressing SAIC waste and records management were added to OU5 and OU6 HSPs.
 12. The OU9 HSP appendices contain Weston specific forms that are not applicable to SAIC. Weston forms were replaced with SAIC forms in OU5 and OU6 HSPs.
-