

484251



U.S. Department  
Of Transportation

Research and  
Special Programs  
Administration

John A. Volpe  
National Transportation  
Systems Center

55 Broadway  
Kendall Square  
Cambridge Massachusetts 02142

February 1, 2001

Christopher Weis, Ph.D.  
Regional Toxicologist  
Environmental Protection Agency, Region 8  
8EPR-ER  
999 18<sup>th</sup> Street, Suite 500  
Denver, CO 80202-2405

Dear Dr. Weis,

A site visit was conducted at the Screening Plant Facility in Libby, MT on September 12, 2000 by the United States Public Health Service (PHS). The purpose of the site visit was to evaluate employee safety and health at the facility. The primary focus of the site visit was an evaluation of the written health and safety plan (HASP) for employees involved in activities at the site, and how the HASP was implemented during actual site operations. The plan reviewed was the MARCOR Remediation, Inc. Health and Safety Plan v1.1, Screening Plant, Libby, MT, dated July 15, 2000.

The purpose of this letter is to respond to the findings and recommendations made by the PHS in a letter to you dated October 20, 2000 (Attachment 1) and to provide additional information regarding site health and safety practices. Below is a summary of the findings and recommendations made by the PHS following the site visit, a description of the corrective actions taken on-site to assure health protection, and the dates on which such actions were taken.

- *The HASP lacked applicability to all employees who were working on the site*

The HASP reviewed during the PHS site visit was for MARCOR employees. Employees not employed by MARCOR are working under their own company's HASPs which are applicable to their specific duties and tasks. These HASPs are located at the Libby Site. In order to remedy the situation of multiple on-site HASPs, the Volpe Center is working with CDM to develop one comprehensive HASP for the site. This HASP will be implemented for removal action activities in spring 2001. We will provide a copy of the HASP to you for review and comment prior to implementation in the spring.

- *The site HASP did not accurately reflect the on-site operations*

The HASP reviewed during the PHS site visit was for MARCOR employees. Employees not employed by MARCOR are working under their own company's HASPs which are applicable to their specific on-site operations. As stated above, development of one comprehensive HASP will remedy this misunderstanding. A task specific work plan was also developed for the morning equipment start-up operations (Attachment 2). Subject specific morning safety meetings were also conducted to more adequately reflect the work being performed on-site (Attachment 3).

- *No written record documenting the frequency of safety and health audits, their findings, or corrective actions were available for review*

At the time of the site visit documentation supporting the frequency of safety and health audits, their findings, or corrective actions were not available. Since the audit, periodic reviews have been conducted. Mr. Frank Garrett, MARCOR Health and Safety Officer has been assigned to conduct routine project auditing. Audits have been conducted on September 20, 2000 and October 31 - November 2, 2000 (Attachments 4 & 5). Included as part of the November 2, 2000 audit, is MARCOR's revised HASP, dated November 2, 2000 (Attachment 6). The findings and corrective actions have been documented and are on file at the MARCOR site trailer. CDM has also been performing health and safety audits at regular intervals (Attachment 7). A systematic audit scheme will be developed and implemented for spring 2001 activities. This scheme will be included in the Spring 2001 HASP.

- *The site zones were not clearly delineated*

Entry gates should be kept closed unless absolutely necessary, allowing visitors to see the signs placed on the gates with directional arrows. Site barrier fences and caution tape were properly placed and easily identified by site personnel. The exclusion zone at the site has been reduced. The site has a designated Rally Point, identified by a Yellow Flag for all personnel to find. The designated Rally Point is at the main gate entrance. Access paths to this point shall remain clear at all times. Items that obstruct the clear paths to these points must be verified clear before work operations. All access points from the project zones shall be kept clear. These actions were documented in the modified plan dated November 2, 2000.

- *An adequate site diagram was not present in the HASP*

The site has undergone numerous changes as site zones are down-graded from exclusion zones to clean zones. The present site layout has been developed, incorporating a "you are here" designation and have been placed at all entrances to the project site, inside the site trailers, and decontamination units, as well as in the HASP. This action was documented in the modified plan dated November 2, 2000.

- *The means by which employees would determine wind direction was not detailed in the HASP*

It was determined that the best method of determining wind direction was through the use of a weather station. A weather station has been obtained and is currently being utilized.

- *The decontamination procedures included in the HASP were vague*

The HASP has been revised by MARCOR to include more specific decontamination procedures. The revised HASP is entitled, MARCOR Remediation, Inc. Health and Safety Plan, Version 1.2, Screening Plant, Libby, MT, November 2, 2000. When removal action operations resume in the spring, the entire site will be working under one comprehensive site specific Health and Safety Plan. This will alleviate a lot of the data gaps and overlap of information which results by having an individual HASP for each contractor working at the site.

- *Guard rails, barriers or markings were not present around a floor hole in the long shed*
- MARCOR has eliminated the floor hole danger in the long shed by filling the hole with concrete. This action was conducted on September 14, 2000.

- *Excavations being conducted on site for the archaeology survey were not addressed in the site safety plan or the need for inspection of this work by a competent person*

The HASP reviewed during the PHS site visit was for MARCOR employees. Employees not employed by MARCOR are working under their own company's HASPs which are applicable to their specific duties and tasks. The EPA's OSC and representative were assisting and overseeing compliance with Health and Safety requirements, and conducted inspection of the excavations for the on-site archaeology survey while the survey was being conducted.

- *No documentation was present related to the possible need for hearing protection*

A hearing protection program has been employed since the start of removal operations at OU2. Mr. Frank Garrett, MARCOR Health and Safety Officer has conducted routine project auditing. Regular noise measurements of heavy equipment and machinery are being monitored on-site through the use of a sound level data logger. This monitoring action was conducted on November 2, 2000. Results from the measurements determined that hearing protection was recommended for individuals working on or around the water trucks. Since hearing protection program did not require modification. Measurements taken for all other equipment and machinery determined hearing protection was not recommended, however, to be conservative the existing hearing protection program remained in effect. Results of the noise measurements are compiled in Attachment 8.

- *No sign was present directing visitors to the command post trailer*

A sign has been posted directing visitors to the command post trailer for sign in and direction. This action was conducted on September 14, 2000.

- *The site HASP did not specify an alternate site safety and health officer*

During the summer removal action, the EPA's OSC and representative were assisting and overseeing compliance with Health and Safety requirements. When operations resume in the spring, an overall site health and safety officer and alternate site health and safety officer will be appointed.

- *The site HASP did not include the required information related to air monitoring*

The responsibility for air monitoring is with CDM, a contractor to the Volpe Center. The required information related to air monitoring is covered under CDM's HASP. CDM provided air monitoring results to the removal contractor at specified intervals.

When removal action operations resume in the spring, the entire site will be working under one comprehensive site specific Health and Safety Plan. This will alleviate a lot of the data gaps and overlap of information which results by having an individual HASP for each contractor working at the site.

If you have any questions please call me at (617) 494-2574.

Sincerely,



John McGuiggin, PE  
Project Manager  
USDOT/Volpe Center

Attachments (9):

- 1) PHS Letter to Chris Weis
- 2) Task Specific Work Plan
- 3) Morning Safety Meeting Sheets
- 4) MARCOR HAS Audit (9/20/00)
- 5) MARCOR HAS Audit (11/02/00)
- 6) MARCOR Revised HASP (11/02/00)
- 7) CDM Audit
- 8) Noise Measurement Data
- 9) Volpe Letter and HASP

**cc: EPA/Mr. Paul Peronard, OSC  
MARCOR/Mr. Timothy Miller, Senior VP  
File/Health & Safety Audit**

**Attachment 1**



U.S. PUBLIC HEALTH SERVICE  
REGION VIII

1961 STOUT STREET 1490  
FEDERAL OFFICE BUILDING  
DENVER, COLORADO 80294



FAX PHONE NUMBER  
(303) 844-~~2019~~  
6282

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USDOT / Volpe

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617 494 2577

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NAME

C.P. Weis

ORGANIZATION

PHS REGION VIII

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COMMENTS

Please review & respond  
regarding actions to assure health protection  
& relevant dates such actions were taken



## United States Public Health Service

Region VIII

1961 Stout Street; Room 498  
Denver, Colorado 80294-3538

October 20, 2000

Christopher Weis, Ph.D.  
Regional Toxicologist  
Environmental Protection Agency, Region VIII  
8EPR-ER  
999 18<sup>th</sup> Street, Ste 500  
Denver, CO 80202-2405

Dear Dr. Weis:

This letter summarizes the site health and safety review conducted at the Screening Plant, Libby, Montana, on September 12, 2000.

### I. Introduction

At the request of Christopher Weis, Ph.D., the EPA Region VIII Toxicologist, a site visit was made by a representative of the U.S. Public Health Service Region VIII, to review site safety and health at the Screening Plant, Libby, Montana. The site has been designated Operable Unit 02 by the U.S. EPA, and is located at 5000 Highway 37 North, Libby Montana. The site cleanup was being performed by MARCOR Remediation, Inc., through contract to the U.S. Department of Transportation, Volpe Center.

### II. Background

The site was formerly an ore screening plant supporting the vermiculite mining operations at nearby Zonolite mountain. Refining operations conducted on the site included screening, sizing, and shipping of the vermiculite ore. During these activities, asbestos, which was present in the ore in varying concentrations, contaminated the structures and land throughout the site. In 1990, following closure of the mine, the property was sold to a family who built a nursery and several greenhouses on the property. In November 1999, EPA Region VIII sent an Emergency Response Team to Libby, MT, to investigate reports of asbestos-related illnesses among members of the community. Environmental sampling was conducted resulting in the EPA determining that there was an imminent and substantial endangerment to public health posed by the asbestos contamination at this facility, and a cleanup (removal) action under CERCLA (Superfund) was initiated.



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### **III. Assessment of Site Safety and Health**

A site visit was conducted on September 12, 2000, for the purposes of evaluating employee safety and health at the facility. The primary focus of the site visit was an evaluation of the written health and safety program (HASP) for the employees involved in activities at the site, and how the plan was carried out in the actual site operations. This written plan is a requirement of the Occupational Safety and Health Administration (OSHA) standard *29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response (HAZWOPER)*<sup>1</sup> at clean-up operations at uncontrolled hazardous waste sites that involve a reasonable possibility for employee exposure to safety and health hazards. The plan which was reviewed was the MARCOR Remediation, Inc. Health and Safety Plan v1.1, Screening Plant, Libby, MT. Based on a review of this plan and other relevant materials, an examination of on-site conditions, and discussions with staff regarding safety and health issues on the site, the following findings, discussion and recommendations are provided to further strengthen the plan and help enhance worker safety and health.

**The HASP lacked applicability to all employees who were working on the site.**

Section 1.2 of the HASP indicated that the intent of the plan was "to protect the health and safety of MARCOR employees and subcontractors". No additional site specific plans were presented for other employees, such as the archeological team, who were working on site but were not a MARCOR subcontractor. This is a common problem at multi contractor sites.<sup>2</sup> In order to best serve the health and safety of the employees, there needs to be an integrated plan that applies to all employees, or in the event that there are different plans, the key aspects of the plans must be integrated. In order to protect the overall integrity of the plan, critical areas such as levels of personal protective equipment, decontamination, general site safety practices, and emergency procedures need to be standardized for all employees. In general, a site plan organized as a single document, with component subsections/appendices covering all tasks, operation, and contractors, may promote use efficiency; enhance completeness, clarity, and coordination among all affected parties; and facilitate compliance inspection.<sup>3</sup> Furthermore, one individual needs to be given overall safety and health enforcement authority. While the HASP gave authority to the Site Safety and Health Officer to develop, implement, and verify compliance with the plan, it was not clear how this applied to individuals who were not MARCOR employees or their subcontractors. Lines of authority between the prime contractor and the various subcontractors need to be clearly stated in the plan.

**The site HASP did not accurately reflect the on-site operations.**

The scope of work defined in section 1.3 of the HASP did not directly reflect what was actually occurring on the site. The contaminated materials that were being excavated were

Page 3 - Health & Safety Plan Review - Screening Plant, Libby Mt.

actually being stored in one of the existing structures, instead of being hauled off site as anticipated. Such a change might involve additional hazards from traffic patterns of hauling trucks and water trucks which could then be addressed in the plan. In addition, a major activity which involved trenching and excavation of the contaminated soil, the archeological survey, was being conducted on-site but was not mentioned in the plan. The HAZWOPER regulation section (b)(4)(ii)(A) requires the written safety and health plan include a safety and health risk or hazard analysis for each site task and operation found in the workplan.<sup>1</sup> While work practices, such as wet sieving, designed to minimize exposures were being followed, such practices should be included in the detailed hazard analysis for each particular job being performed on site.

Previous reviews of health and safety operations at hazardous waste sites have underscored the need for the final HASP to identify the actual hazards present on the site as well as the specific workplace controls and procedures needed to protect against those hazards. The site HASP should be a living document that constantly changes to reflect the nature of activities on the site. In this manner, specific job activities, their hazards, and the appropriate work practices can be detailed and serve as a checklist to what is actually occurring on site, making the site HASP a relevant and working document.

No written record documenting the frequency of safety and health audits, their findings, or corrective actions were available for review.

The plan assigned the Site Safety and Health Officer the specific responsibility for "conducting safety and health performance audits", but no written records were made available which documented the frequency, content, findings, or corrective actions of these "internal" audits. An external audit had recently been conducted by one of the subcontractors which presented a checklist of findings related to health and safety deficiencies. A report detailing the status of the corrective actions taken to date to correct these deficiencies was made available for this audit. Written records of this nature for the internal audits would greatly enhance their effectiveness.

The overall effectiveness of the safety and health program must be evaluated, in part, by conducting regular inspections and audits and documenting them.<sup>4</sup> In addition, the site HASP should include a mechanism for following up on corrective actions needed for any hazards identified during the audit. All hazard abatement actions identified by the site safety and health officer should be tracked to ensure the corrective actions have been implemented.<sup>2</sup>

The site zones were not clearly delineated.

The HASP stated that the site "shall be divided into three well delineated zones. In

**Page 4 - Health & Safety Plan Review - Screening Plant, Libby Mt.**

practice, the Contaminated or Exclusion Zone shared a common fence in the vicinity of the command post trailers with the Support Zone, with no Contamination Reduction Zone present except at the decontamination area. Individuals with no protection were noted to be standing at the common fence talking with individuals in PPE in the Exclusion Zone. The inclusion of a Contamination Reduction Zone along this area would provide a clearer separation and discourage the possibility of contamination across these areas.

**An adequate site diagram was not present in the HASP.**

While a good site description was provided, the HASP which was reviewed did not include a detailed site diagram, with the exception of a general location map, and a map in the emergency planning section which reflected the original site layout. Such a diagram or map should be included and provide prevailing wind directions, location of "existing" roads, buildings, structures, excavations, and other hazards. For instance, the plan stated the support zone "will be located upwind of the active work zone", but there was no evidence from a site map that this was indeed the case. A well documented site map can serve a number of valuable purposes, including helping orient new employees or site visitors, planning activities, assigning personnel, identifying evacuation routes, and explaining the daily activities and any new operations. Such a map should continually be updated to reflect significant changes in wind direction, site activities, and new hazards encountered on the site, and as such, can enhance overall site safety and health.

**The means by which employees would determine wind direction was not detailed in the HASP**

The HASP stated the importance that the role of wind direction could play in site safety and health and the need to minimize exposures through work practices designed to "keep workers upwind of operations as much as possible". It did not state the manner in which the employee would determine wind direction or who or how such information would be communicated to them. Based on discussions with the site personnel, the contractor was in the process of acquiring a weather station. This will greatly add to the quality of the wind direction information and the manner in which it is used should be included in the HASP.

**The decontamination procedures included in the HASP were vague**

While the decontamination procedures outlined in the site HASP were very general in nature, the subcontractor had recently developed detailed procedures for donning PPE and for decontamination, which were posted in the decontamination area. The incorporation of this information into the HASP would significantly enhance the value of these areas of the HASP and make it a more effective working document.

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**Guard rails, barriers or markings were not present around a floor hole in the long shed**

A floor hole in one area of the long shed, that led to an underground tunnel, was left open and there was no barricade or other highly visible marking or means of adequately identifying this hazard. This was noted in the previous external audit, and should be corrected immediately.

**Excavations being conducted on site for the archeology survey were not addressed in the site safety plan or the need for inspection of this work by a competent person.**

This was previously mentioned as lacking description in the plan, and the actual site walk-through revealed unmarked trenches and excavations that would require daily inspection by a competent person. Specific requirements that may apply to site excavations are included in section (b)(1)(iii) of the HAZWOPER standard and in 29 CFR 1926, Section P.

**No documentation was present related to the possible need for hearing protection**

Section 11.2 of the the HASP documented the possible use of hearing protection around heavy equipment but there was no documentation present to indicate if any noise monitoring had been conducted to determine if any specific jobs required hearing protection or implementation of a hearing conservation program.

**No sign was present directing visitors to the Command Post Trailer**

While there were two entrances to the general site Command Post area, no sign was present which clearly would direct visitors or delivery drivers to the appropriate area to check in at the site. Use of such signs would help prevent unauthorized individuals or individuals unfamiliar with the site from entering restricted areas, i.e., decontamination area or exclusion zone.

**The site HASP did not specify an alternate site safety and health officer**

During the site inspection, the site safety and health officer was away from the site. The definition of site safety and health supervisor provided in 1910.120 (a)(3) states that individual is located on the hazardous waste site.<sup>1</sup> The plan should clearly designate an alternate individual responsible for site safety and health in the event that the site safety and health officer is gone from the site. This individual should have at least the OSHA mandated training for a supervisor and meet the qualifications described in the definition.<sup>1</sup> The alternate would also be required to be on site when acting as the site safety and health supervisor.

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**The site HASP did not include the required information related to air monitoring**

Although comprehensive air monitoring was being conducted, the site HASP did not contain all of the information required. Specifically, there was no information included in the plan which specified the methods of maintenance and calibration of monitoring and sampling equipment to be used as required in 1910.120(b)(4)(ii)(E).<sup>1</sup> While the subcontractor had equipment and procedures in place for maintenance and calibration, this information, along with a more comprehensive discussion of the actual sampling and analytical plan, should be included in the site HASP.

The incorporation of these recommendations into the existing site safety plan should help to further strengthen the plan and help enhance worker safety and health. Should you have any questions regarding this information, feel free to contact me at (303) 844-7851.

Sincerely,

A handwritten signature in black ink, appearing to read 'William Daniels', with a large, stylized flourish at the end.

William Daniels, CIH, CSP

Page 7 - Health & Safety Plan Review - Screening Plant, Libby Mt.

#### REFERENCES

1. Occupational Safety and Health Administration Standard 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response (HAZWOPER)
2. EPA/LABOR Superfund Health & Safety Task Force: OSHA Audits of Superfund Sites from 1993 to 1996. Occupational Safety and Health Administration August 25, 1997
3. Occupational Safety and Health Administration: Letter to Dr. Paul W. Jonnaire, Ecology and Environment, Inc. OSHA Standards Interpretation and Compliance Letters, August 19, 1988.
4. Garrahan, M.A. Seven Steps to Successful Safety and Health Programs at Superfund Sites: A Compendium of Lessons Learned. Occupational Safety and Health Administration Job Safety and Health Quarterly, Volume 5, Number 2, Winter 1995.
5. National Institute for Occupational Safety and Health: Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. U.S. Department of Health and Human Services, DHHS (NIOSH) Publication No. 85-115, October 1985.

**Attachment 2**

## **TASK SPECIFIC WORK PLAN**

**SUBJECT: EQUIPMENT START UP OPERATIONS:**

**PURPOSE: TO PROVIDE A SAFE OPERATIONAL PROCEDURE FOR WARMING UP EQUIPMENT IN THE MORNING OPERATIONAL HOURS.**

**LIMITATIONS: In order to use this task specific work plan, the following five conditions must be met:**

1. The vehicles must be placed in the contamination reduction zone equipment corridor,
2. The employee must carry a radio and another radio being with support personnel,
3. The employee must make him/or herself visible to the security guard or other personnel,
4. The employee is limited to ONLY, turning the equipment on to "pre-warm" prior to site use.
5. The employee cannot conduct any site cleanup, or maintenance that makes them not readily seen at all times.

**THIS PROGRAM WILL ALLOW A SINGLE EMPLOYEE WHO HAS MET THE ABOVE CONDITIONS TO ENTER THE CONTAMINATION REDUCTION ZONE CORRIDOR/IDENTIFIED AS THE CRZ EQUIPMENT CORRIDOR.**

1. The employee must identify the location(s) of the fire extinguishers in the work zone.
2. The employee must wear the correct PPE,
3. That entry without a "buddy" into the exclusion zone past the vehicle locations is strictly forbidden.
4. The use of Torch Cutting is prohibited without a Fire Watch.

**EFFECTIVE DATE OF OPERATIONAL ATTACHMENT SEPTEMBER 22,2000**



**Attachment 3**

**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Ice Coated Surfaces #01**

The site can develop areas of standing water during the dust control operations. Temperatures drops during the workday or overnight can create dangerous slip and fall conditions. Remember, not all ice is easily visible, layers and coatings may form on walking and working surfaces which is hard to detect. When climbing stairs, use handrails, and remember to walk, not run. Exercise caution when exiting equipment or other site vehicles.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Noise Exposure #02**

The site has numerous types of heavy equipment and other portable smaller type equipment which generates levels of noise at or above the OSHA noise exposure maximum level of 85 dB. Workers exposed to prolonged periods of high noise exposure are required to wear hearing protection, which has a minimum NRR (Noise Reduction Rating) of 29. Earplugs or other type of hearing protection can be worn as long as it meets these requirement.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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MARCOR Remediation, Inc.  
Site Specific Safety Meeting  
Libby Montana Project Site  
Job Number 11-00886-008

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: The Decontamination Station (Dirty Side) #03**

The decontamination station (dirty side) is designed to reduce the amount of contamination entering the shower room. The purpose of this station is to reduce contamination by washing boots, segregating clothing, etc. Materials must be placed in the proper bins. Don't throw items on the ground if the bins are full, get another bag, wash your boots leaving the debris in the wash box. Remember the decontamination cleanliness is ***EVERYONES RESPONSIBILITY***.

Other Safety Conditions to Watch for:

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**Remember  
Think Safety - Work Safely**

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MARCOR Remediation, Inc.  
Site Specific Safety Meeting  
Libby Montana Project Site  
Job Number 11-00886-008

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: The Decontamination Station (Shower Area) #04**

The shower area is the second line of defense in protecting the clean room. The shower area needs to be maintained in a clean and orderly manner. The shower area is equipped with soap. The use of soap when showering is **mandatory**. The surfactant action of the soap with water assists in the removal of fibers that may be on the hair and body. Failure to shower affects the health and safety of all personnel. Remember the decontamination area's cleanliness is **EVERYONES RESPONSIBILITY**.

Other Safety Conditions to Watch for:

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**Remember  
Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: The Decontamination Station (Clean Room) #05**

The clean Room is designed to provide a safe dressing environment for workers who are not wearing respiratory protection or personal protective equipment. This area is important to the project site since all of the employee's street clothes are safely stored and clean PPE is provided. The clean room only remains a safe area if we follow the rules, and remember SIGN IN. Keeping the clean room "clean" is **EVERYONES RESPONSIBILITY.**

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Fueling of Equipment #06**

The fueling of equipment is a potentially dangerous situation if precautions are not followed. It is important to remember that all fuels have the ability to burn and cause injury. Before you start , identify the nearest fire extinguisher, look at your way out, and check the area around you. **ASK YOURSELF IS IT SAFE.** Using ground loops for volatile fuels, such as gasoline, and always used approved fuel cans with self closing lids.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Orange Vests #07**

The site requires that you are always visible to heavy equipment and vehicular traffic. The Orange Vest is mandatory on the project site. Look around you the site has numerous colors, white, yellow, brown, etc. But the high visibility orange vest will allow you to be seen by the equipment. Remember when you make yourself SEEN you make yourself SAFE.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
Site Specific Safety Meeting  
Libby Montana Project Site  
Job Number 11-00886-008

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Headlights On for Safety #08**

The use of Headlight is mandatory on site for all moving equipment that has headlights. During the early dark hours of the morning low beam lights area necessary, high beams can temporarily blind on coming personnel or machinery. Your need turn your high beam on at all other times. Remember when you make yourself SEEN you make yourself and others around you SAFE.

Other Safety Conditions to Watch for:

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**Remember  
Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Respirator Care #09**

The care and handling of your respirator will determine its' effectiveness in your PROTECTION. The respirator should be thoroughly washed in the shower with soap and water, followed by a rinse of clean water. The respirator should be dried and placed into its bag for storage. Remember respirators are in three locations, **ON YOUR FACE, IN YOUR HAND, or IN A BAG..**

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Safety Glasses #10**

The use of safety glasses is mandatory for site operations. The site has the potential for flying debris generated from vehicular traffic, demolition, and other activities. It is important to realize that depending upon light conditions two type of glasses may be required (clear & tint). Use the safety glasses that provide the most protection and coverage and the best field of vision. And if you haven't check in a while look for the Z87.1 Stamp on the frame.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Work Boots #11**

We forget that our feet are the highest level of contact with site contaminants. Are we wearing the right boots? The site requires that work boots are made of PVC, have a steel toe, and a steel shank. Additionally, the BOOTS must have a grip type sole. Remember to clean mud from the boots to keep the grip sole working, if the sole is smooth you risk the chance of slipping and falling.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Hand Protection #12**

The site requires that hand protection be utilized at all times in the work zone. The minimum level of protection is a latex glove in combination with a cotton glove. The latex glove provides protection from liquids and the cotton glove increases resistance to abrasion. Select gloves base on the hazards and remember to TAPE the interfaces for protection.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
**Site Specific Safety Meeting**  
**Libby Montana Project Site**  
**Job Number 11-00886-008**

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: Exposure to Cold #13**

As the temperature decreases the effects of cold exposure become very obvious. We shiver, shake, etc., trying to keep warm. Layers of clothing that forms an air pocket will keep you warm. Additional use of clothing, that can be left on the dirty side of the decon will be required as temperatures fall. Watch out for signs of hypothermia, and frostbite. Keep those ears covered, and watch out for toes and fingers. Remember, cold injuries develop slowly, stay alert and watch out for others.

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**MARCOR Remediation, Inc.**  
Site Specific Safety Meeting  
Libby Montana Project Site  
Job Number 11-00886-008

Meeting Date: \_\_\_\_\_

Meeting Time \_\_\_\_\_

**Subject: The Safety Meeting #14**

We attend a safety meeting every day. WHY!, Safety meetings are for the sharing of information that can make the site a safe place for all employees, and the meeting provides a way for safety concerns to be voiced and ACTED UPON. It is impossible for one person to see all of the conditions that develop on site.

**Please when you're in a SAFETY MEETING - SPEAK UP - SAFETY IS FOR EVERYONE**

Other Safety Conditions to Watch for:

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**Remember**  
**Think Safety - Work Safely**

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**Attachment 4**



## **Report of Safety Inspection**

**Date of Inspection:** September 20, 2000

**Time of Inspection:** 15:30 Hours to 17:30 Hours

**Project Type:** Environmental Remediation ( Asbestos Hazard)

**Site Access :** Restricted Site Access/ Limited Entry/ Security Barrier

**Reason for Inspection:** Routine Inspection (non-incident) Type

### **Brief Site Description:**

The Libby Montana Site is an EPA listed cleanup operation with asbestos being the primary hazard. The site has fence controls and security measures in place. All personnel enter and exit through a controlled zone.

### **Inspection Elements:**

The inspection focused on verifying existing documentation, i.e., the site specific health & safety plan, and other site control documents. The inspection of work during this inspection focused on the conformity to the project plans.

### **Inspection Finding:**

The entry to the project site requires the use of a sign in and sign out sheet for the project visitors. Proper signs directing the visitors to the main office for check in would be facilitate this requirement.

The Decontamination trailer is known by the workers, but the location and type of supplies need to be marked in the unit and adequately supplied. The entry into the unit was properly labeled per OSHA 1910.1001. The directional arrows through the shower are confusing when they are first negotiated. Larger arrows applied to the plastic or signs would assist in this operation.

The entry to the work zone is adequately set up, the boot rack is well constructed and is adequate for its use. The boot wash area requires a wood deck, rack so that the workers boots are not immersed in the dirty water as they wash out.

The exit area provides hardhats, and orange vests. These are easily found and useable.

The work operations appear known to the operational crews. All equipment in motion (forward and reverse) were fitted with back up beeper. Trucks or equipment that has road lights (water trucks, dump trucks, etc.) must have the lights on at all times during operation and travel. Workers in the field were all observed wearing orange vests. Vehicles that are stopped for refueling or that

Page 2 of 2  
Safety Inspection  
September 20, 2000

The driver exits must have the parking brakes applied. This applies to pickup trucks in the work zone also.

The work zones are not presently identified in the SSHASP, based on the current site configuration. The site map will be corrected to indicate the work zones, this map will require placement in the access and site trailers.

Fertilizer storage was noted in the zone between the "Conex" boxes. The fertilizer, specifically, ammonium nitrate is an oxidizer. The "Conex" trailer does not have a 1 hour rated wall and contains grease and oils. It is important that this fertilizer is removed at once or that the oils and greases are relocated.

A Sound Study was conducted on the D8B Dozer, using the DuPont(Ametek) MK-3 calibrated noise dosimeter. The machine has a fully enclosed cab with one window missing. The results indicated a Loudness Max of 84.7 dB for a duration of 1 minute. This Lmax appears twice which indicates door slamming. The majority of noise is at 79dB and 82dB. The metal structure is prompting some amount of reflection. The noise information was not corrected for humidity or barometric pressure.

**Conclusion;**

The site operations are progressing and no injuries or illnesses have been reported. The Site Specific Health & Safety Plan, is considered a "Living Document". The project site, although, in compliance with the original document numerous changes have occurred which prompts the document being review and amended. Changes to the amended document will require notification to the employees and other entry parties.

Report of Inspection Activities submitted by:

  
Frank Garrett

**Attachment 5**

**MARCOR Remediation, Inc.**  
**Site Safety Audit**

Audit Date(s): October 31 – November 2, 2000  
Audit Location: Libby Montana – Site Remediation Project  
Auditing Office: Los Angeles, CA – 16027 Carmenita Road, Cerritos, CA 90703  
Reason for Audit: Inspection of HASP Changes and Site Zone Changes  
Person Conducting Audit: Frank Garrett

***Project Overview:***

The Libby Site Remedial Action Project is located 4 miles North East of Libby Montana. The project is situated along the Kootenai River. The project primarily involves selective demolition, soil removal, site landscape improvements by contour, grade, and planting. The primary known contaminant is asbestos generated from the handling of vermiculite by a former mining facility.

The site is managed by the EPA and VOLPE, and is a listed Superfund Site. The personnel on site are required to have both the HazWOpER 40 hour and the 16 hour Asbestos Awareness and Operations and Management Plan trainings. Each employee is required to have a current medical evaluation (physical) and a current respirator fit test.

***Site Audit***

The site audit focused on four components – Employee Training, Site Layout and Controls, Applicability of the HASP ( Changing Site Conditions), and General Safety Conditions. Any conditions that required immediate changes due to the potential for injury were identified immediately and corrected by on site staff.

***Employee Training:***

The employee training certificates were reviewed for expiration dates, clarity, and necessary wording. The audit identified two areas of needed correction, and one of future safety enhancement:

- 1 The respirator fit tests do not reference 29 CFR 1910.134 – Respiratory Protection Standard. A current form has been included in this audit for use by site personnel for future fit tests.
2. One employee is within 30 days of expiration of the asbestos certification required for the site activities. A refresher may be provided on site or after the employee returns to their base office.

3. Future Safety enhancement will be provided by the use of site specific safety meetings – included within this audit are 21 Site Specific Safety Meetings for use during the next twenty-one anticipated operation days.

### ***Site Layout and Controls***

The site has undergone numerous changes as site zones are down graded from exclusion zones to clean zones. The present site layout is included in this audit. The site layouts, incorporating a you are here designation, have been placed at all entrances to the project site, inside the site trailers, and decontamination units.

Site barrier fences and caution tape were noted to be properly placed and easily identified by site personnel. It should be noted that the site has reduced the exclusion zone, since the west side of the site has been completed and is being backfilled.

The entry gates should be kept closed unless absolutely necessary. This will allow for visitors to see the signs that are placed on the gates with directional arrows.

Fire extinguishers and first aid kits are available on site but direction to such items was inadequate. This has now been corrected in the updated site layout drawing. The fire extinguishers that are located outside must be covered. This will prevent ice over of the mechanisms causing the units to fail during an emergency.

The site has a designated Rally Point which must be identified by a Yellow Flag for all personnel to find. The designated rally point is at the main gate entrance. The access paths to this point must remain clear at all times, items that obstruct the clear paths to these points must be verified clear before work operations. All access points from the project zones must be kept clear. Vehicles, that are shut down must never be parked in a manner that prevent exit by personnel.

Non-MARCOR personnel on site must be instructed as to the site emergency procedures.

### ***Applicability of the HASP.***

The Site Specific Health and Safety Plan (HASP) is a "living" document, with respect to its' ever changing conditions and guidelines. The purpose of this audit is to evaluate the effectiveness and accuracy of the HASP at the current level of operation. The HASP, indicates activities and operations that were not utilized at the site but incorporated during the project design phase. It is important to realize that the HASP should be used as a tool in developing and predicting work operations as needed.

The HASP, as of this audit, is in need of updates and activity changes. The HASP original documentation will remain in place but is single line strike through (example: ~~strike through~~). The revised version of the HASP is included with this audit report.

### ***General Site Conditions***

The site was audited by Frank Garrett (MARCOR- Los Angeles) and Marshall Reed (MARCOR-Libby) Site Superintendent. The below listing represents the items found and the corrective actions taken. To assist in the correction of data, digital photographs were taken to document conditions and their subsequent changes.

#### **Item Requiring Correction:**

1. Conduit laying across walk way to the decontamination trailer. The conduit was at an angle connecting the power supply to the decontamination trailer.

#### **Correction:**

1. The conduit was cover by gravel and sloped to provide an easily negotiated walk surface. This correction, is not the best choice, but will suffice. In the future it would be easier to carry the conduit above the trailer to decrease the potential for falls and damage to the conduit. *This item is corrected.*

#### **Item Requiring Correction:**

2. Exposed electrical wires from MARCOR Trailer to former decon trailer. The wires were exposed, but marking or other types of designation, i.e., dead, etc. was not visible.

Correction.

2. The wires were removed and the conduit also disposed. *This item is corrected*

Item Requiring Correction:

3. Barrier tape indicating hazards were not present along the path from the decontamination trailer to the exclusion zone. This marking is necessary to avoid accidental entrance into the exclusion zone.

Correction.

3. The barricade tape was installed to properly demarcate this area. *This item is corrected*

Item Requiring Correction

4. All chemicals require an MSDS. The Concentrate Sevin Insecticide did not have the correct MSDS in the site book. The MSDS listed was for the lower percentage of carbaryl as found in the home use version. A correct version was obtained from the manufacturer

Correction.

4. The correct MSDS was placed into the site book. A Table of Contents in the site books will assist the reader in locating MSDS Sheets in a faster manner. *This item is corrected*

Item Requiring Correction

5. Employees that are required to stand in the truck unloading area must wear reflector type orange vests. This will increase their visibility in low light conditions.

Correction.

5. Reflector Tape has been placed on the front and back of orange vests belonging to workers who fit this job description. Employees engaged in traffic control are using the reflective type vest. *This item is corrected*

Item Requiring Correction

6. All vehicles in motion in the work area must have lights on. This lights on policy was not being followed by some of the import soil vehicles enter the clean zone.

Correction.

6.Site Superintendent contacted the trucks and lights were turned on. *This item is corrected*

Item Requiring Correction

7. Employees engaged in traffic control were placing themselves between the roadway and their personal cars. This position prevents the employee from having a way out if an on coming vehicle gets to close .

Correction.

7.Employees were told to stand at the rear on their vehicles facing on coming traffic. This leaves them adequate room to get a way. It is unadvisable to stand at the front of the vehicle, if the vehicle were struck it would hit the flagman possibly resulting in injury or fatality.. *This item is corrected*

Item Requiring Correction

8. The site maps did not reflect the current site conditions, primarily zone exclusion.

Correction.

8. The new site maps have been placed in a trailers and at entrances. *This item is corrected*



**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC: Can They See You?

Number: 11-001-01

As lighting conditions and changes in elevation change on site it is important to make yourself seen on the project site. Never leave the work area or job station without checking in with your supervisor. If you are issued an orange vest or a reflective vest you must wear it at all times in the zone or at your work station.

Remember if you can't see them, they can't see you

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC: Land Changing Around You?

Number: 11-001-02

Each day in the excavation and fill areas the site ground conditions change, holes become hills and roadways disappear. You must be on the look out for these changes follow signs, barrier tape, fencing, etc. Never assume the site will be in the same condition each day – stay alert to the everchanging conditions.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:      Using Vehicle Horns?

Number: 11-001-03

The horns that are attached to the equipment and trucks are a warning device. Since they are warning devices they should be used to prevent accidents. Use of a horn to signal when backing, or to prevent a vehicle from entering your path is the purpose of the horn.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:      Entering The Highway ?                  Number: 11-001-04

Every time we enter the highway we risk a collision with another vehicle. Although we have traffic control in place we still must use good judgment. The Flagman signals the on coming vehicles to stop. This is not a 100% guarantee, the vehicles if present must stop, so keep a look out, and enter the road way safely.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:       Freezing Weather                   Number: 11-001-05

As temperature drops, the environment, equipment, and people change. Ground freezes, dust control water creates a sheet of ice, equipment requires warm up time, people are dressed in thick layers of restrictive clothing. All of these conditions create a hazardous work area, which can affect the safety of employees. Allow for adequate warm up time for people and equipment. And remember to watch for ever changing site conditions.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:        Carrying Tools

Number: 11-001-09

Tools should always be carried in a toolbox, or in the case of one or two in your hand. Never place tools in your pockets (back or front). Remember never run with tools or throw them to other employees. Tools look innocent, but many accidents, fatalities, and injuries are a result of tools being thrown to another employee.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:        Electric Cords

Number: 11-001-010

Electric cords are strung on the site for temporary purposes. This does not mean that they should not meet the standards for safety as permanent installations. The cords should be free of nicks, cuts, and any other damage. The grounding prong must be in place and attached to a GFI breaker. Remember if you use a non-grounded plug the GFI will **NOT WORK** and you may be electrocuted or shocked.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC: Pick It Up!

Number: 11-001-011

The appearance of the site is the responsibility of all employees. A Clean site is a safe site. Keeping the site clean reduces the potential for slips, trips, and falls. It takes longer to think about picking something up than it does to do it. It is all of our jobs to keep this site clean, use the trash cans, and PICK IT UP.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC: Fire Extinguisher

Number: 11-001-012

Do you know where the nearest fire extinguisher is located? If you don't know find out now. In case of emergency you want to be prepared so that you can effectively handle a fire situation. Remember always let your supervisor know if you used a fire extinguisher. Never put an empty fire extinguisher back on its' hook. It is absolutely worthless for a future emergency.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC: First Aid Kits

Number: 11-001-013

Do you know where the nearest first aid kit is located? If you don't know find out now. In case of emergency you want to be prepared so that you can effectively handle a first aid situation. Remember always let your supervisor know if you used a first aid kit. When you open the first aid kit it should always have a pair of latex gloves inside, put the gloves on first.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:      Site Security

Number: 11-001-014

Who is responsible for site security? We all are responsible. Each day each of us has the potential to encounter a visitor to the job site who is asking for directions. Remember direct them to the MARCOR trailer for assistance, no one can enter the site zones unless they are wearing adequate protection and clothing.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC: Rally Point

Number: 11-001-015

Do you know where the Rally Point is located on site? In case of an emergency the site has a designated Rally Point at the main gate. A yellow flag is posted at this location on site. When you hear the site horn, head to the rally point, an attendance will be taken.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:      Warning Horns

Number: 11-001-016

The warning system of the site consists of an air horn. Three long blasts from the air horn indicates that all employees should exit the zones and move to the rally point. Follow emergency decontamination procedures if necessary. In case of weather related emergencies it is best to find proper shelter in the decon or other trailers

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:      Riding on Equipment

Number: 11-001-017

The number of seat and seat belts determines the number of people who can ride on or in equipment. If you don't have a seat or seat belt to use it is not safe to ride in or on the vehicle. Riding on running boards, vehicle ladders, etc. is never safe and a violation of MARCOR safety policies. Riding on a running board may seem like a free ride – but may cost you your job or your life.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:      Work Area Lights

Number: 11-001-018

The changing light conditions require the use of early morning lighting. The lights can only illuminate a portion of the job site at a time and areas behind the lights area not light. Stay out of the shadow areas, remember the vehicles have lights and venture into these points and may not see some one walking in these dimly lit areas. Remember Stay Out of the Shadows.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:        The Fire Hose

Number: 11-001-019

We use fire hose to spray water for both dust control and washing off equipment. It is important to remember that these hoses are under pressure. You should always shut off the valve at the hose when you are finished spraying. An open nozzle under pressure will allow the hose to kick back and injuring yourself or other employees.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:       MSDS

Number: 11-001-020

Materials Safety Data Sheets (MSDS) are available for all chemicals on site. The MSDS books are located in the MARCOR Trailers on site. Changes and additions are constantly being made to the MSDS Book. If you are using a chemical for the first time read the MSDS, ask questions, and be confident in its' use.

Additional Comments:

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**REMEMBER  
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**Employee Signature**

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**Site Specific Safety Meeting  
Libby, Montana  
Site Remediation Project**

TOPIC:        Confined Spaces

Number: 11-001-021

Confined Spaces are dangerous places. On site we have tunnels with unidentified hazardous conditions that may affect the health and safety of employees. Ask your self these questions: Can You Enter?, Are there limited means of entry and exit? Is the place designed for continuous human occupancy? If your answers are YES, YES, NO. It is a confined space – STAY OUT.

Additional Comments:

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**REMEMBER  
Think Safety and Work Safely**

**Employee Signature**

**Employee Signature**

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**TechPac, LLC.**  
**P.O. Box 24830 Lexington, KY 40504**  
**Material Safety Data Sheet**

**GardenTech Sevin Concentrate Bug Killer**  
 This product is used by Homeowners and Professionals  
 MSDS NO. GT-15                      AUG. 1998                      Page 1 of 4

### SECTION 1 - PRODUCT IDENTIFICATION

**Emergency Phone Number:** 800-969-7200  
**Poison Control Center:** Atlanta: 1-800-282-5846  
**EPA Reg. Number:** 264-334-71004  
**Chemical Name:** Carbaryl; [1 Naphthyl N-Methylcarbamate]  
**Trade Name:** Sevin ©brand Carbaryl Insecticide

### SECTION 2 - COMPOSITION

Component	Percentage	ACGIH Exposure Limit	OSHA Exposure Limit
Carbaryl [63-25-2]	22.5%	TLV - 5 mg/m <sup>3</sup>	PEL - 5 mg/m <sup>3</sup>
Propylene glycol [57-55-6]		50 ppm (AHA-TWA)	None Established
Ethanol [64-17-5]		TLV - 1000 ppm	PEL - 1000 ppm

### SECTION 3 - HEALTH HAZARD DATA

#### EMERGENCY OVERVIEW

Off-white to pale yellow liquid with a phenolic odor.  
 \* Harmful if swallowed, inhaled or absorbed through skin.  
 \* Extremely toxic to aquatic and estuarine invertebrates.  
 \* Highly toxic to bees.

**ROUTES OF ENTRY:** Ingestion, absorption and inhalation.

**INGESTION:** Harmful if swallowed.

**INHALATION:** Harmful if inhaled. May produce symptoms similar to those from ingestion.

**SKIN:** Harmful if absorbed through skin. May produce symptoms similar to those ingestion.

**EYES:** Causes redness, irritation, tearing.

**SIGNS AND SYMPTOMS:** This product causes reversible cholinesterase inhibition. Signs and symptoms of overexposure may lead to rapid onset of nausea, vomiting, abdominal pain, diarrhea, pinpoint pupils, blurred vision, profuse sweating, salivation, tremors, muscle twitching, and temporary paralysis. In severe poisoning, respiratory depression and convulsions may occur.

### SECTION 4 - FIRST AID

**IF SWALLOWED:** If victim is conscious and alert, give 2-3 glasses of water to drink and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Seek medical immediate medical attention. Do not leave victim unattended. Vomiting may occur spontaneously. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek medical attention.

**IF ON SKIN:** In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. Seek medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

**IF INHALED:** Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek medical attention.

TechPac, LLC.  
P.O. Box 24830 Lexington, KY 40504  
Material Safety Data Sheet

GardenTech Sevin Concentrate Bug Killer  
This product is used by Homeowners and Professionals  
MSDS NO. GT-15 AUG. 1998 Page 2 of 4

SECTION 4 - FIRST AID continued

**NOTE TO PHYSICIAN:** Carbaryl is a carbamate insecticide, which is a cholinesterase inhibitor. Over exposure to this substance may cause toxic signs and symptoms due to the stimulation of the cholinergic nervous system. These effects of overexposure are spontaneously and rapidly reversible. Specific treatment consists of parenteral atropine sulfate. Caution should be maintained to prevent over atropinization. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should be given 2 to 4 mg intravenously every 10 minutes until fully atropinized, then intramuscularly every 30 to 60 minutes to maintain the effect for at least 12 hours. Dosage for children should be appropriately reduced. Complete recovery from over exposure is to be expected within 24 hours. Narcotics and other sedatives should not be used. Further drugs like 2-PAM are not recommended unless organophosphate intoxication is also suggested.

SECTION 5 - FIRE & EXPLOSION HAZARDS

**FLASH POINT:** > 93 C (200 F)

**FLAMMABILITY CLASS:** Will burn.

**EXTINGUISHING MEDIA:** Water Fog; CO<sub>2</sub> or Chemical Foam

**SPECIAL FIRE FIGHTING PROCEDURES:** Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Keep unnecessary people away, isolate fire hazard and deny entry. Evacuate residents who are downwind of fire. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Persons who may have been exposed to contaminated smoke should be immediately examined by a physician and checked for symptoms of poisoning. The symptoms should not be mistaken for heat exhaustion or smoke inhalation.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** Product will burn under fire conditions.

SECTION 6 - SPILL AND LEAK PROCEDURES

**Evacuation procedure:** Wear appropriate protective gear for the situation. See Personal Protection Information in Section 8.

**Containment of Spill:** Dike spill using absorbent or impervious materials such as earth, sand or clay. Follow procedure described below under Cleanup and Disposal of Spill. Collect and contain contaminated absorbent and dike material for disposal.

**Cleanup and Disposal of Spill:** Recover material, if possible. Absorb with vermiculite or other inert absorbent. Shovel up into an appropriate closed container (see Section 7: Handling and Storage). Clean up residual material by washing area with water. Decontaminate tools and equipment following cleanup.

**Environmental and Regulatory Reporting:** Runoff from fire control or dilution water may cause pollution. Prevent material from entering public sewer system or any waterways. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies. If spilled on the ground, the affected area should be removed to a depth of one or two inches and placed in an appropriate container for disposal.

SECTION 7 - STORAGE & HANDLING

**Storage:** Store in original container. Store in an area that is cool, dry, away from foodstuffs or animal feed, out of reach of children and animals.

**Storage Temperature:** Ambient (Average Warehouse) Temperatures. (< 100 F)

**Handling:** Avoid direct or prolonged contact with skin and eyes. Do not ingest.

SECTION 8 - SPECIAL PROTECTION INFORMATION

**Engineering Controls:** General, dilution/exhaust ventilation.

**Respirator Type:** Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against pesticides.

**Eye Protection:** Safety glasses with side shield or goggles should be worn to protect against possible liquid splash or spray mist.

**Gloves:** Rubber or neoprene work gloves.

**Other Protection:** Body covering clothing and shoes.

**TechPac, LLC.**  
**P.O. Box 24830 Lexington, KY 40504**  
**Material Safety Data Sheet**

**GardenTech Sevin Concentrate Bug Killer**  
 This product is used by Homeowners and Professionals  
 MSDS NO. GT-15                      AUG. 1998                      Page 3 of 4

### SECTION 9 - PHYSICAL DATA

<u>Physical Form:</u> Liquid	<u>Color:</u> Off-white to pale yellow	
<u>Vapor Pressure:</u> 18.1 mmHg @ 20 C (68 F)	<u>Bulk Density:</u> N/A	<u>Odor:</u> phenolic
<u>Specific Gravity:</u> 1.05 @ 20 C (68 F)	<u>Flash Point:</u> Non-flammable	<u>pH:</u> 4 to 5 at 5 wt/wt%
<u>Water Solubility:</u> Miscible	<u>Freezing Point:</u> -3 C (27 F)	<u>Melting Point:</u> 100 C (212 F) @ 760 mmHg
<u>Vapor Density:</u> 0.62	<u>Molecular Weight:</u> 201.2	

### SECTION 10 - REACTIVITY DATA

Stability: Stable, water base product                      Polymerization: Will not occur  
Conditions To Avoid: Storage above temperatures above 100 degrees will lead to non-hazardous decomposition. Alkalies, strong acids  
Decomposition Products: Oxides of Nitrogen, Carbon, Sulfur, and Methyl Isocyanate.

### SECTION 11 - TOXICOLOGICAL INFORMATION

LD<sub>50</sub> ORAL (rat): 1947 mg/kg                      LD<sub>50</sub> DERMAL (rabbit): >2000 mg/kg  
EYE IRRITATION (rabbit): Minimally irritating                      SKIN IRRITATION (rabbit): Minimally Irritating  
CHRONIC TOXICITY: Carbaryl has been shown to cause tumors in laboratory animals in lifetime feeding studies. Carbaryl, when administered by various routes at doses toxic to the maternal animals, has been shown to produce developmental toxicity in a number of species. Carbaryl produces no teratogenic effect in the absence of maternal toxicity.

### SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological Information: The following data is based on the technical grade active ingredient(s) (TGA1).  
 Mallard Duck LC50 > 3,000 mg/kg/8 days  
 Bobwhite Quail LC50 > 3,000 mg/kg/8 days  
 Rainbow Trout LC50 - 1930 ug/l/96 hours  
 Bluegill Sunfish LC50 - 6760 ug/l/96 hours

### SECTION 13 - DISPOSAL

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

EPA Hazardous Waste: Yes

### SECTION 14 - TRANSPORTATION

Proper Shipping Name: GardenTech Sevin Concentrate Bug Killer  
 Technical Name (if applicable):  
 UN Initial & Number: Not regulated                      Class:                      Packing Group:                      RQ: Not required  
 Hazard Labels: None required

### SECTION 15 - REGULATORY INFORMATION

SARA TITLE III: Carbaryl, CAS# 63-25-2, 22.5% is a SARA Title III, Section 313 Chemical.  
CERCLA: REPORTABLE QUANTITY: Carbaryl, 100 lbs, 33 gallons of product  
IARC, NTP, OSHA Carcinogens: None listed  
CALIFORNIA PROPOSITION 65: None listed

**TechPac, LLC.**  
P.O. Box 24830 Lexington, KY 40504  
**Material Safety Data Sheet**

**GardenTech Sevin Concentrate Bug Killer**  
This product is used by Homeowners and Professionals  
MSDS NO. GT-15                      AUG. 1998                      Page 4 of 4

## SECTION 16 - OTHER INFORMATION

### NOTICE FROM TECHPAC, LLC.

The information contained herein is offered only as a guide to the handling of this specific material. Since such information does not relate to use of the material with any other material or in any process, any person using this information must determine for himself its suitability for any particular application. The buyer and user assumes all risk and liability of use, storage and/or handling of this product not in accordance with the terms of the product label.

#### ABBREVIATIONS KEY:

N/A = Not available or applicable

N/E = Not established

TLV=Threshold Limit Value

PEL = Permissible Exposure Limit



## Retail MSDS Fax-On-Demand

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To: 4062933852  
From: 888-MSDS-KRS

November 1, 2000 12:21 PM

You requested the following documents:

GardenTech Sevin Concentrate Bug Killer

Thank you for using the Kelly Registration Systems MSDS Fax-On-Demand System.  
You were caller 3708.

For more information about Kelly Registration Systems, call 888-MSDS-KRS  
and select option number 4.

VISIT OUR WEB-SITE: [WWW.KELLYREG.COM](http://WWW.KELLYREG.COM)

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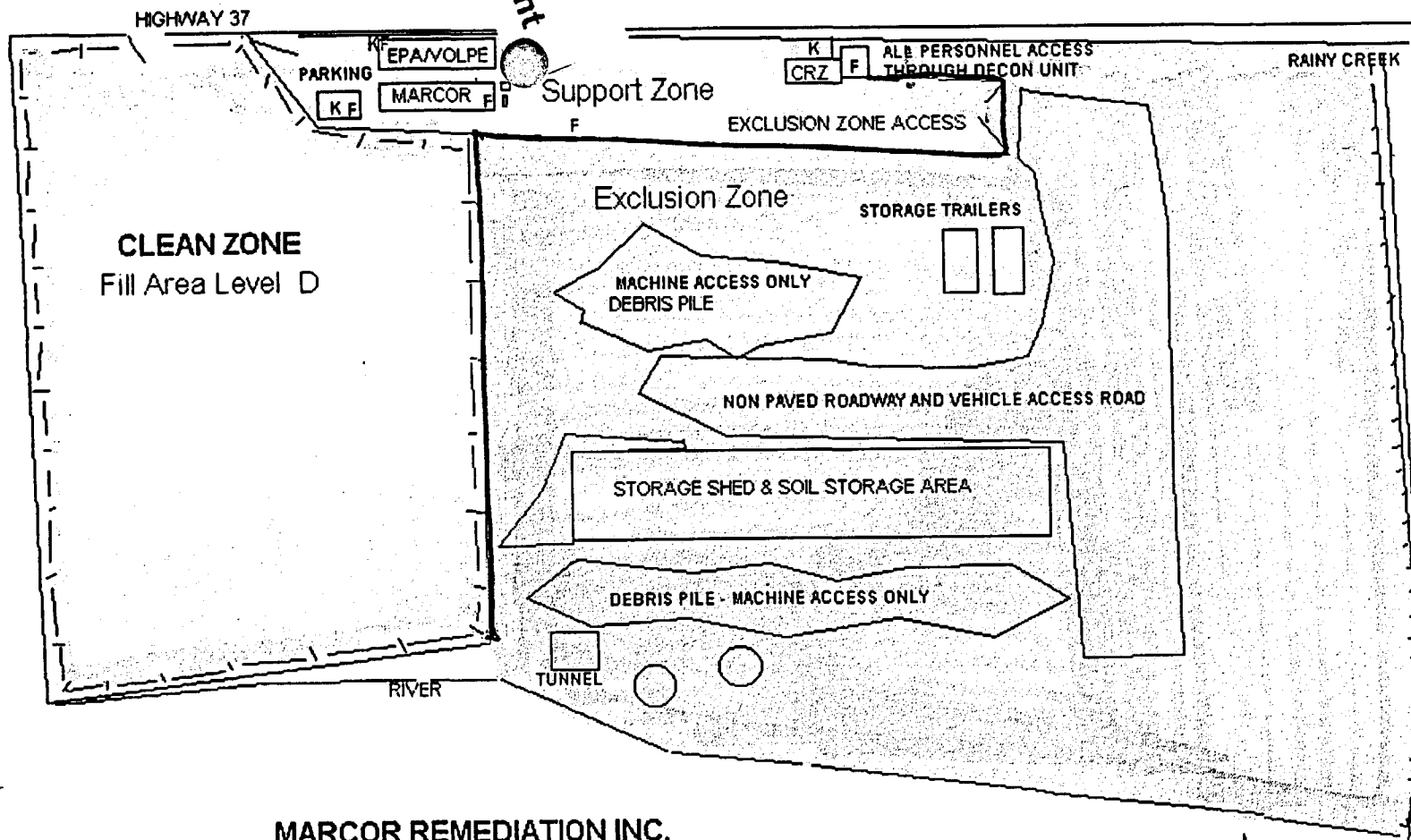


YOU ARE HERE

Rally Point

 SUPPLY TRAILERS

F- FIRE EXTINGUISHERS  
K- FIRST AID KITS



MARCOR REMEDIATION INC.  
 LIBBY MONTANA - SITE REMEDIATION  
 PROJECT  
 SITE CONTROL ZONES 11/01/2000  
 NOT TO SCALE

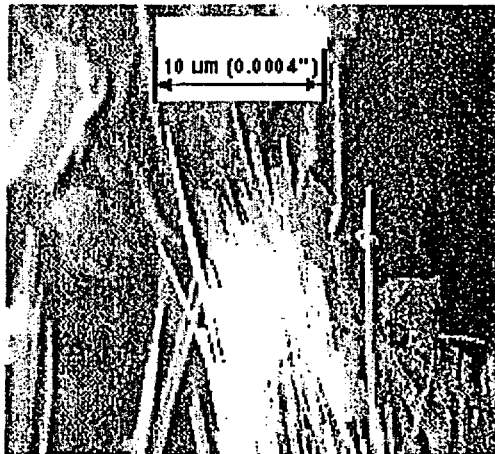




**Attachment 6**

**MARCOR REMEDIATION, INC.**  
**HEALTH AND SAFETY PLAN**  
**VERSION 1.2**  
**REVISION 1**  
**NOVEMBER 2, 2000**

**SCREENING PLANT**  
**OPERABLE UNIT 02**  
**LIBBY, MT**



Microscopic view of fibrous bundle in vermiculite  
From the EPA website for Libby, Montana

**DEVELOPED UNDER CONTRACT NO. DTRS57-96-D-00036, USDOT VOLPE**

**DEVELOPED BY: DAN FIGUEROA**  
**REVIEWED BY: BRUCE LIPPY, CIH, CSP**  
**(DATE)**  
**SEAL**

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**TABLE OF CONTENTS**  
**MARCOR REMEDIATION, INC. 1.2**  
**HEALTH AND SAFETY PLAN, VERSION 1.1**  
**SCREENING PLANT, OPERABLE UNIT 02**  
**LIBBY, MT**

<b>Section 1</b>	<b>Health and Safety Plan</b>
	Appendix A Dismantling/Demolition Plan
	Appendix B Earthwork/Excavation Plan
	Appendix C Transportation/Disposal Plan
	Appendix D Equipment Decontamination Plan
	Appendix E Traffic Control
	Appendix F Dust Control
	Appendix G Erosion Control
	Appendix H Temporary Facilities
	Map to Hospital
	MARCOR Procedure 05-547-01 Hazardous Waste Operations Legal
<b>Requirements</b>	
	MARCOR Procedure 02-341-01 Cold Stress
	MARCOR Procedure 02-340-01 Heat Stress
	MARCOR Procedure 02-338-01 Fall Protection
<b>Section 2</b>	<b>Safety Standard Operating Procedures</b>
	Safe Work Practices (02-301-03)
	Selection of Personal Protective Equipment (02-110-01)
	Equipment Safety Guidelines – Electric, Gas, Diesel, and Pneumatic (02-332-01)
	First aid and CPR (02-415-01)
	Occupational Injuries – Reporting and Investigation (05-460-03)
<b>Section 3</b>	<b>Asbestos Abatement Standard Operating Procedures</b>
<b>Section 4</b>	<b>Respiratory Protection Program</b>
<b>Section 5</b>	<b>Tailgate Safety Meeting Procedures</b>
<b>Section 6</b>	<b>Fire and Emergency Procedures</b>
<b>Section 7</b>	<b>Hazard Communication Standard Operating Procedures</b>

MARCOR REMEDIATION, INC.  
HEALTH AND SAFETY PLAN ~~V1.1~~  
1.2

SCREENING PLANT  
LIBBY, MT

**SECTION 1.0 INTRODUCTION**

MARCOR Remediation, Inc. (MARCOR) has developed this Health and Safety Plan (HASP) for the abatement work being performed at the former W.R. Grace Screening Plant in Libby, MT. This site has been designated Operable Unit 02 by the U.S. Environmental Protection Agency. The facility is located at:

5000 Highway 37 North  
Libby, Montana 59923

This project is being performed under contract DTRS57-96-D-00036, with the U.S. Department of Transportation's Volpe Center. This HASP was developed using the latest version of the EPA-OSHA electronic HASP (eHASP) which is available on the EPA Environmental Response Team's website. Information was also taken from the EPA's website for the Libby, Montana project:

<http://www.epa.gov/region08/superfund/sites/mt/libbyasb/lbbytop.html>

**Section 1.1 Site Description**

Libby, Montana is the site of the largest vermiculite mine in the world which has been mined for the last 60 years. In 1963, W.R. Grace bought the Zonolite mining operations. The Mine closed in 1990. While in operation, the vermiculite mine in Libby may have produced 80% of the world's supply of vermiculite. Vermiculite has been used in building insulation and as a soil conditioner. Unfortunately, the vermiculite from the Libby mine was contaminated with a toxic form of naturally-occurring asbestos called tremolite-actinolite asbestiform mineral fibers. W.R. Grace, the previous owner of the facility, sold the property to the Parker family in 1990 who built a plant nursery on the premises, including several greenhouses.

In response to local concern and news articles about asbestos-contaminated vermiculite, the U.S. Environmental Protection Agency, Region 8 sent an Emergency Response Team to Libby, Montana in late November 1999. In December 1999 the EPA team collected nearly 700 samples (air, soil, dust, insulation). In January, the agency released the indoor air sample results — first to property owners and then to the media and general public. The EPA is taking the current cleanup action under CERCLA (Superfund) as a removal action, which allows the agency to move quickly to contain the situation.

The facility that MARCOR will be cleaning up is the Screening Plant which is a 21 acre parcel that contains 6 structures including the "Long Shed" where vermiculite was stored, several greenhouses, and a residence that served as an office for the Parker nursery. The Screening Plant is accessed through a gated entrance off of Highway 37. Site access road conditions vary throughout the property. The main access road is paved, reportedly with a 3 to 6 inch overlay of asphalt over a graded subgrade with compacted base materials. Unimproved roads are in fair condition; however, vermiculite was visible at a number of locations on and adjacent to these roads. Road access to the site appears to be adequate to support future remediation activities. Total area of asphalt and concrete (including building slabs) is 171,994 sq. ft. A large amount of concrete and asphalt paving is located on the building site. There is approximately 99,000 sq. ft. of asphalt paving and approximately 10,400 sq. ft. of concrete paving. The asphalt paving in most cases appeared to have a thickness of 4 to 6 inches. The concrete paving observed had a thickness of 6 to 12 inches.

The improvements at the site consist of a mix of older industrial buildings and newer commercial nursery structures, together with site improvements and landscaping. The buildings consist of an office/dwelling and attached solarium, five or six commercial green houses, a shade house, a large shed, a smaller open-front shed, several auxiliary buildings, and a mobile home. Additional improvements include an aboveground fuel storage tank, an aboveground water storage tank, a large area of concrete and asphalt paving, numerous ornamental plantings, and other landscaping and site improvements.

## **Section 1.2 Intent**

The intent of this plan is to protect the health and safety of MARCOR employees and subcontractors during the cleanup action at the Libby, Montana site. The plan is designed to identify, evaluate, and control safety and health hazards, and respond to emergencies that may arise. This will be accomplished by complying with the applicable Federal/State rules and regulations, particularly OSHA's 1910.120 HAZWOPER standard and the 1926.1101 asbestos standard for construction. Additionally, all MARCOR employees and contractors will comply with MARCOR Procedure No. 05-501-01 Hazardous Waste Operations and Emergency Response. In the event of conflicting procedures, personnel will follow those which afford the highest protection.

## **Section 1.3 Scope of Work**

The project involves the abatement of hazards associated with asbestos-contaminated debris and soils, and the demolition of structures presumed to be contaminated with asbestos dust.

### **Specific work activities covered by this HASP include:**

1. Removal and decontamination of building materials contaminated with asbestos dust.
2. Decontamination and demolition of all structures on-site, including tunnels under the Long Shed which contained augers that moved the vermiculite to the river where it was conveyed to rail cars.
3. Removal of the top 18 inches of soil from 15 acres of the site.

~~4. Hauling and disposal of asbestos contaminated soil at the abandoned Vermiculite Mine.~~

Accomplishing this work will require the use of heavy equipment such as front end loaders, backhoes, and excavators. ~~Additionally, dump trucks will be used to haul the soil to the vermiculite mine where it will be dumped. All waste from this site will be hauled to the mine and dumped. The soils excavated from the project site will be stockpiled in he long shed and around the outside of the structure. The piles and the long shed will be covered by a poly type cover. (November 2, 2000 Change)~~ MARCOR will additionally handle the demolition of the structures, only one of which is major. None of the demolition activities will be accomplished by workers on the inside of these structures; all demolition will be accomplished from the outside using mechanical equipment.

**Specific operations NOT covered by MARCOR**

1. Site security will be handled by U.S. DOT Volpe.
2. Perimeter air sampling will be handled by an outside contractor.
3. The scope of work, including depth of soil removal, has been determined by the Volpe Center.

**SECTION 2.0 PROJECT PERSONNEL AND ON-SITE ORGANIZATION**

**Section 2.1 Volpe Center, EPA and Local Environmental contacts**

MARCOR reports to the Volpe Center. The primary governmental contacts are listed below.

Agency	Name	Title	Phone number
Volpe Center	John McGuiggin	Project Manager	406-293-6255
EPA	Paul Peronard	On-Scene Coordinator	800-227-8971, x6808
	Wendi Thomi	Community Involvement	406-441-1150x241
	Aubrey Miller	Public Health Service	303-844-7857
ATSDR	Chris Poulet	Health Scientist	303-312-7013
Montana DEQ	John Constan	Project Manager	406-444-1438
	Dan Rapkoch	Communications	406-444-2929
Montana Dept of Public Health and Human Services	Mike Spence	Medical Officer	406-444-1286
Lincoln County Env.	Ron Anderson	Medical Officer	406-293-7781x228

**Section 2.2 MARCOR Key Personnel**

Title	Name	Telephone	Role
Project Manager	Dan Figueroa	406-293-1306 cell phone	Has overall responsibility for ensuring that the project is properly carried out. Coordinates between office and field personnel and manages administrative requirements for the HASP. Has responsibility and authority to direct all hazardous waste operations. Serves as Site Health & Safety Officer
Site Superintendent	Owen Clark	805-551-6706 cell phone	Monitors the project's progress, regularly reviews the project schedule, and reviews all major work elements prior to submittal. Oversees scheduling and serves as the primary contact between MARCOR and the client for health and safety issues.
<u>Site Superintendent</u>	<u>Marshall Reed</u>	<u>406-293-1052</u> <u>cell phone</u>	<u>Monitors the project's progress, regularly reviews the project schedule, and reviews all major work elements prior to submittal. Oversees scheduling and serves as the primary contact between MARCOR and the client for health and safety issues.</u>
<u>Health &amp; Safety Officer</u> <u>Project Auditing</u>	<u>Frank Garrett</u>	<u>562-244-5181</u> <u>cell phone</u>	<u>Has review and site zone adjustment authority. Makes Changes to HASP, incorporates site changes, and reviews efficiency of program (Visits site on a periodic basis for Audit purposes)</u>

**2.3 Specific responsibilities of the Site Safety and Health Officer**

The Site Safety and Health Officer (SSHO) is the key person responsible for the health and safety of MARCOR employees and contractors on the work site. The SSHO will establish

operating standards in conjunction with the Project Manager and Project Superintendent and coordinate safety and health activities for the work site. He will review project plans and revisions to plans to assure that safety and health procedures are incorporated through all of the work phases. Specific duties include:

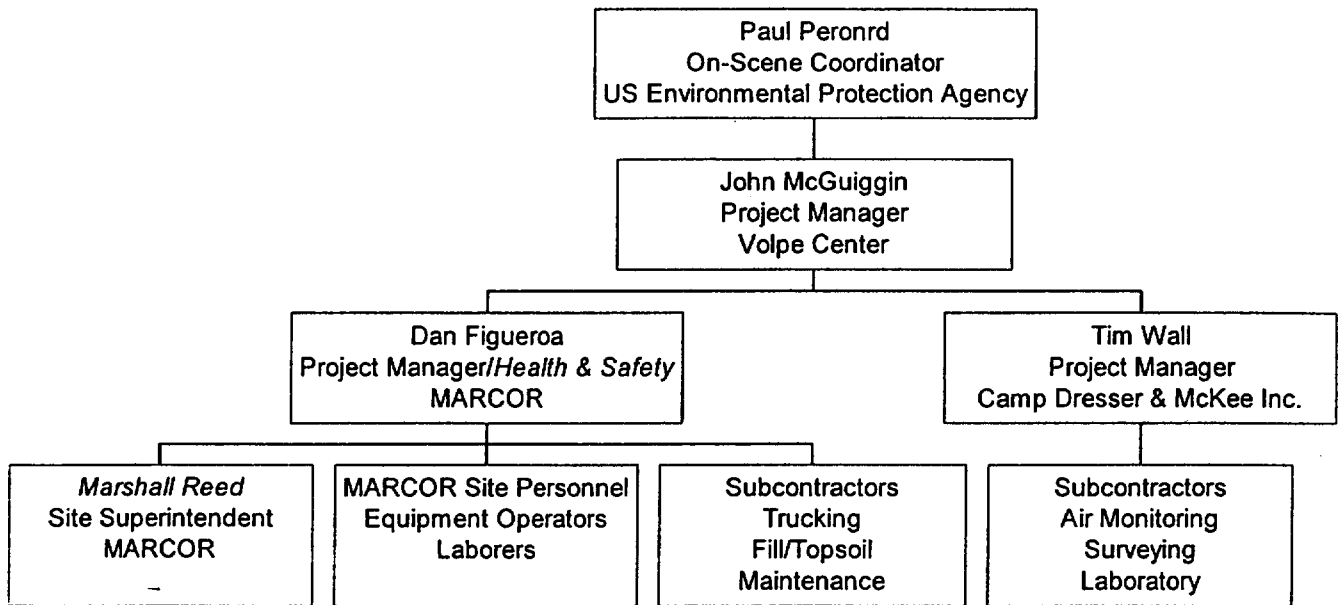
- Assuring that a complete copy of the HASP is at the site prior to the start of work activities and that all workers are familiar with it.
- Conducting on-site health and safety training and briefing sessions.
- Ensuring the availability, use, maintenance, and decontamination of personal protective equipment and other safety or health equipment.
- Maintaining a high level of safety awareness among workers and communicating pertinent safety and health matters to them promptly.
- Assuring that all activities are performed in a manner consistent with the MARCOR standard operating procedures and the HASP.
- Monitoring for dangerous conditions during field activities.
- Initiating immediate corrective actions in the event of an emergency or unsafe condition.
- Promptly notifying the project manager of any emergency, unsafe condition, problem encountered or needed exception to this HASP.
- Recommending improvements in safety and health measurements to the project manager.
- Conducting safety and health performance and system audits.

The SSHO has the authority to:

- Suspend activities or otherwise limit exposures if the health or safety of any person appears to be endangered.
- Notify personnel to alter work practices that do not properly protect them or pose a risk to the community or the environment.
- Suspend an individual from work for violation of the requirements of this HASP or MARCOR Procedures.

## **Organizational Structure**





### SECTION 3.0 WORK AREAS AND SITE CONTROL

Access to the work site will be limited to the trained, authorized personnel governed by this plan. Specifically, all workers entering the contaminated areas must be current on OSHA training based on their job functions.

#### Site workers

- HAZWOPER 1910.120 training, 40-hour site worker course with acceptable refresher training
- Asbestos, 1926.1101, 40-hour worker course, which is equivalent in curriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement workers training (40 CFR Part 763, subpart E, appendix C).

#### Truck drivers, equipment operators

- HAZWOPER 1910.120 training, 40-hour site worker course with acceptable refresher training.
- Asbestos, 1926.1101, 16-hour awareness course. This is the same as maintenance

personnel receive under 40 CFR 763.92(a)(2).

### Supervisors

- HAZWOPER 1910.120 training, 40-hour site worker course with acceptable refresher training
- Asbestos, 1926.1101, 40-hour awareness course
- Asbestos, 1926.1101, supervisor course. This is competent person training in all aspects of asbestos removal and handling. Such training shall be obtained in a comprehensive course for supervisors that meets the criteria of EPA's Model Accredited Plan (40 CFR part 763, subpart E, Appendix C).

The site shall be divided into three well delineated zones, as follows:

1. Contaminated or Exclusion Zone - This zone includes the actual areas of contamination. This zone has the highest inhalation exposure potential for asbestos. The Exclusion zone will be demarcated with barrier ribbon.
2. Contamination Reduction Zone - This zone includes the area immediately surrounding the Contamination Zone. This zone has the next highest inhalation hazard.
3. Support/Clean Zone - This zone covers areas outside of the contamination reduction zone and contains support functions, i.e. command post. Adverse exposure is unlikely

Access to the established contamination or exclusion zone is limited to authorized personnel wearing the appropriate personal protective equipment (PPE).

The contamination or exclusion zone will be cordoned off with flagging tape. The zone will be monitored by the SSHO to ensure personnel do not enter without proper PPE. The entry/exit corridor, decontamination zone, and support zone will be located upwind of the active work zone. A sign-in log will be employed to ensure that only authorized employees are on-site and in the exclusion zone. The amount of time each employee is in the exclusion zone will be entered on the log as well.

Overall site security will not be the responsibility of MARCOR. However, entry into the contaminated areas will be maintained by MARCOR's Project Supervisor and/or his designee, and the SSHO and/or designee. Their duties include limiting access to the site to authorized personnel, oversight of the project equipment and materials and general oversight of site activities, as appropriate. A current site map is attached to this document.

## **SECTION 4.0 HAZARD EVALUATION**

### **4.1 General considerations**

Tremolite-actinolite asbestos is known to be present in the soils, and lodged in building components. The well-documented hazards from breathing airborne asbestos fibers includes asbestosis, a disease that restricts breathing from lung scarring and is often fatal. Asbestos fibers also cause lung cancer and mesothelioma, a rare cancer of the lining of the lungs that is always fatal and can almost always be associated with asbestos exposures. Asbestos has also been associated with increases in digestive cancers from accidental ingestion.

The main concern, however, is breathing airborne fibers. All MARCOR employees and contractors will be protected from asbestos exposure through work practices such as constantly wetting the soil during excavation, covering the loads during shipping, and considering wind direction during all work procedures to keep workers upwind of operations as much as possible. Personal protective equipment will be used by MARCOR workers, including NIOSH-approved respirators with high-efficiency cartridges and Tyvek disposable clothing. All workers will go through personal decontamination procedures on a daily basis.

This project involves the excavation and moving of an enormous amount of soil as well as the demolition of buildings and the hauling of the resulting debris. Consequently, safety hazards associated with general construction work – slips, trips, falls, pinch points, collisions - present potentially greater risk on this project than asbestos exposure. MARCOR has addressed these risks in the individual work plans for this project. Additionally, MARCOR has specific company policies that address these practices (see the appendices).

There exists the possibility of other hazards on the site. For instance, the metal structures in the Long and the West Sheds may be coated with paint containing lead oxide. Similarly, the wooden trim in the Parker residence/office may contain paint containing lead carbonate. Further testing by the EPA is needed to determine if lead is present. Also, some minor amounts of chemicals may be found on the site. Finally, MARCOR will bring materials such as diesel fuel, lubricants, etc. to the site which will also be addressed.

#### **4.2 Demolition of structures**

Structural dismantling and controlled demolition of each structure shall be done using the excavators with thumb and shear attachments, bulldozers, and wheel loaders under constant water spray. The excavator with shears shall cut cross members and beams while the excavator with thumb assists with supporting the structure until it is appropriate to pull it down. This process shall continue until the entire structure has been brought to the ground. Demolition of the concrete tunnels shall occur following demolition of the Long Shed. A 3:1 slope shall be excavated to access the concrete tunnel underneath the north and west edge of the Long Shed. Excavation spoils shall be staged onto the asphalt slab in preparation of transportation and disposal at the Abandoned Vermiculite Mine (Mine). The excavator with pulverizer shall gain access to the top of the concrete tunnel where it shall be staged. The excavator shall extend the pulverizer to the exposed end of the tunnel while staged on top of the tunnel. The pulverizer will be engaged and crush the concrete tunnel and move back along the length of the tunnel until complete. Crushed concrete shall be allowed to remain inside the tunnel and backfilled upon completion.

**Hazards: slips, trips, and falls, falling debris, equipment collisions, trenching collapse, workers being struck by equipment, and the generation of dust containing asbestos.**

#### Controls

No interior demolition will be conducted so no workers will be in the structures. Demolition will be accomplished with mechanized equipment. This includes the demolition of the tunnels where confined space entry and trenching could be significant hazards if workers were exposed. Dust control using water spray will be done with a 1 1/2" fire hose attached to the water line from Rainy Creek Road. Additional dust control shall be done using 2,000-gallon water trucks staged near the excavators. Water shall be sprayed from personnel in the boom lifts spraying down onto the structures and from ground surface near the excavators. The dismantling and controlled demolition process shall be halted in the event visible dust is generated. The dust control measures shall continue until the dust disperses or has settled under the constant water spray. The demolition process may begin again when the dust has dissipated.

Additionally, during demolition operations workers must wear Level C protection consisting of: hard hat, steel toe boots, safety glasses, leather gloves, tyvek suits and half face negative pressure respirators equipped with HEPA dust cartridges. No changes are to be made to the level of protection without approval of the SSHO or Project Manager.

#### 4.3 Hauling and dumping of demolition debris

After the sheds, greenhouses, residence and office trailer are demolished. The components will remain on site in designated storage piles. ~~The excavator with shears shall begin processing the debris and sizing for loading, transportation and disposal at the Mine. Steel and wood components of each structure shall be cut to a maximum of 4' x 4' pieces to ease placement into end dump trucks for transportation to the Mine.~~ The processed demolition debris shall be stock piled on each structure's footprint until loading begins allowing free standing water in the demolition debris to percolate through the debris pile and be captured on the concrete slabs and within the erosion control measures adjacent to each structure.

Loading end dump trucks with the demolition debris shall be done using the excavators with thumb attachment and wheel loaders. All work shall be done under constant air monitoring and water spray.

While the excavator with shear attachment is processing the demolition debris, the excavators with thumbs shall be demolishing the remaining structures. The wheel loaders and bulldozers shall be used to demolish and process structures other than the West Shed and Long Shed.

**Hazards: the possibility of workers being struck by trucks, front end loaders, or other heavy equipment; traffic accidents; and the possibility of the release of asbestos-containing dust.**

#### Controls

~~Asbestos-contaminated debris shall be transported and disposed at the Abandoned Vermiculite Mine (Mine) using licensed, trained, and insured drivers operating lined semi-tractor trailer end dump trucks. A CAT 966 (or equal) rubber tire wheel loader shall load the trucks under constant water spray. The debris shall not be wrapped in plastic or tarped as planned for the contaminated soil. Demolition debris consists of many sharp objects and wrapping each load prior to transportation and disposal at the Mine would result in damage to the plastic and tarp over the load. Prior to loading out the demolition debris, the debris pile shall be thoroughly soaked to wash away any remaining dust for the short trip to the Mine.~~

~~A site EPA Identification Number shall be obtained prior to initiating any transportation and disposal activities. Transportation companies shall provide their EPA Identification Number prior to initiating any transportation and disposal for this project. Disposal facilities shall provide their EPA Identification Numbers prior to initiating any transportation and disposal for this project. The Mine is not recognized as a licensed disposal facility. The Federal Government has directed MARCOR to dispose of the asbestos-contaminated soils and demolition debris at the mine and agrees to indemnify and hold harmless the Contractor from any liability whatsoever that may arise from using the mine as a disposal facility for this project.~~

~~The plans for this activity call for loaded semi-tractor trailer end dump trucks to cross Highway 37 at a maximum frequency of every 6 minutes. Emptied semi-tractor trailer end dump trucks will also be returning from the Mine at a maximum frequency of every 6 minutes. These trucks shall be controlled by flagmen staged at the road crossing of Highway 37 and Rainy Creek Road that shall control the semi-tractor trailer end dump trucks by radio and hand held stop signs. Traffic control personnel shall be staged at the hill on Highway 37 east (approximately 600 feet) of the intersection and 1000 feet to the west. Traffic Control personnel shall have hand held radios having the same frequency used for the site communications. Semi-tractor trailers shall be allowed to cross Highway 37 when traffic control personnel announce that public traffic is not approaching the intersection from the east or west.~~

#### 4.4 Soil excavation

Contaminated soil will be removed from approximately a 15 acre area to the mine for disposal and hauled to the onsite stockpiles. Work will be done with an excavation crew consisting of one excavator operator, one water truck driver, one or two articulating dump truck driver(s), and one or two laborers.

Excavation of soils will be performed using excavators cutting soils to a depth of 18 inches up to 5 feet based on contamination levels. Specific grids to excavate will be determined by the government based on sampling by CDM Federal. The work will be performed in seven phases (see the Earthwork/Excavation Plan in the appendices). These Phases shall be approximately 200 feet wide running from Highway 37 to the Kootenai River.

**Hazards: the possibility of encountering hidden service lines, being struck by trucks, front end loaders, or other heavy equipment; and the possibility of the release of asbestos-containing dust.**

## Controls

To prevent contact with service lines, the State of Montana, U-Dig will be contacted 48 hours in advance of work. Utilities will have been properly disconnected or isolated from the area to be excavated. Additionally, work will not proceed until the Government has approved the excavation in each specific grid. The excavation work area will be thoroughly soaked with water prior to start of work. The water trucks will be properly staged to provide adequate water spray over the excavation area to control dust. No unauthorized persons or equipment shall be allowed inside during the excavation process. Equipment and personnel will be staged outside of the swing area of the excavators and outside of the loading zone for the articulating dump trucks. Personnel and equipment shall be staged upwind of the work area whenever possible to reduce the risk of exposure to airborne asbestos fibers. Workers in the contaminated zone will wear Level C protective ensembles at all times, including half-face, negative pressure respirators with high-efficiency cartridges, tyvek coveralls, hard hats, and safety shoes.

### 4.5 Soil Dumping

~~Asbestos contaminated soils shall be transported and disposed at the Mine using lined semi-tractor trailer end dump trucks. Soils shall be excavated and loaded onto articulating dump trucks, stockpiled at the Greenhouse slab, Long Shed slab, and asphalt pad in the horse pasture (ref. Temporary Facilities Plan). Stockpiles shall be maintained using a CATD8 bulldozer and water trucks. Stockpiles shall be covered at the end of each shift using 6-mil plastic or treated with an approved dust suppressant chemical.~~

~~Semi-tractor trailer end dump trucks shall be allowed to access the stockpiles using a clean corridor haul road constructed of 5/8" crushed and screened stone (ref. Temporary Facilities Plan). The end dump trucks shall approach each loading area where technicians shall line the dump truck bed with 6 mil plastic. A CAT 966 (or equal) rubber tire wheel loader shall load the trucks under constant water spray. Once the end dump is loaded, the truck shall proceed back to the truck preparation facility where technicians shall wrap the plastic liner (burrito wrap) and allow the truck to extend its water tight tarp over the entire load. The Contractor shall have a prepared Bill of Lading that the driver shall sign, and a representative from the Government shall sign as the generator. The loaded end dump truck shall be allowed to exit the site over the clean corridor haul roads and in accordance with the Traffic Control Plan.~~

~~The loaded trucks shall proceed to the Mine using Rainy Creek Road. The end dump trucks shall be directed by the operators of the Mine as to where the load is to be placed. Once the end dump is empty, the truck shall proceed to the Mine decontamination facility and wash down (ref. Temporary Facilities Plan). A representative of the Mine operations shall sign the truck driver's Bill of Lading and exit the decontamination facility.~~

**Hazards: the possibility of workers being struck by trucks, front end loaders, or other heavy equipment; a significant risk of accidents as trucks cross HWY 37; exposure to the dust suppressant chemical; and the possibility of the release of asbestos-containing dust.**

## Controls

~~An MSDS will be obtained for the dust suppressant chemical and evaluated by MARCORs' Industrial Hygienist. Laborers will be kept out of the loading area while loading progresses. Hauling of soil will be covered by flagmen staged at the road crossing of Highway 37 and Rainy Creek Road that shall control the semi-tractor trailer end dump trucks by radio and hand held stop signs. Traffic control personnel shall be staged at the hill on Highway 37 east (approximately 600 feet) of the intersection and 1000 feet to the west. Traffic Control personnel shall have hand held radios having the same frequency used for the site communications. Semi-tractor trailers shall be allowed to cross Highway 37 when traffic control personnel announce that public traffic is not approaching the intersection from the east or west.~~

## **SECTION 5.0 COMPREHENSIVE WORK PLAN**

The comprehensive workplan required by OSHA under 1910.120(b)(3) is covered in this HASP through specific plans written for this project by MARCOR and included in the appendices as follows.

<u>Appendix</u>	<u>MARCOR Workplan for OU2</u>
A	Dismantling/Demolition
B	Earthwork/excavation
C	Transportation/Disposal
D	Equipment Decontamination Plan
E	Traffic Control
F	Dust Control
G	Erosion Control
H	Temporary Facilities

## **SECTION 6.0 SITE MONITORING AND ACTION LEVELS**

The project calls for site and perimeter monitoring to ensure that asbestos fibers concentrations above allowable limits are not released during demolition and abatement activities. Perimeter air monitoring will be conducted by CDM Federal for the EPA. MARCOR will be responsible for monitoring personal exposures of their workers, as required by OSHA, under 1926.1101(f). MARCOR will collect breathing zone air samples from workers that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee.

As required under 1926.1101(f)(1)(iii), representative 8-hour TWA employee exposure shall be determined on the basis of one or more samples representing full-shift exposure for employees in each work area. Representative 30-minute short-term employee exposures shall be determined on the basis of one or more samples representing 30 minute exposures associated with operations that are most likely to produce exposures above the excursion limit for employees in each work area.

The SSHO will designate which employee's exposure will be monitored by personal sampling.

Samples will be taken and analyzed per 29 CFR Part 1926.1101. Sampling will be in accordance with MARCOR SOP #05-505-01 and recorded on Air Monitoring Data Form #02101F3. The frequency of continued air sampling during the project will be evaluated by MARCOR's Industrial Hygienist after the initial two weeks of data are collected. Results will be posted in the decontamination trailer.

## **SECTION 7.0 DECONTAMINATION PROCEDURES**

Personnel and equipment leaving the exclusion zone shall be thoroughly decontaminated. Decontamination of personnel will be by scrubbing with a soap/water mixture followed by clean water rinses in the showers provided on-site in the decon trailer.

All respirators, protective clothing and decontamination waste will be disposed of in accordance with MARCOR Procedure No. 05-516-01.

A decontamination unit shall be positioned at the entrance to the contamination reduction zone with a step-off area just inside the contamination reduction zone. All personnel entering or leaving the contamination reduction zone shall pass through these areas to don or doff their protective equipment.

Contaminated protective equipment, materials and equipment/instruments shall not be removed from the work areas until they have been properly cleaned or properly packaged and labeled.

Employees shall not be permitted to exit the regulated area until contaminated clothing and equipment have been removed and decontaminated and employees have washed their hands and faces with soap and water.

Removal of materials from protective clothing or equipment by blowing, shaking or any other means which may disperse materials into the air is prohibited.

Equipment will be pressure washed for decontamination at a decon pad constructed on-site. In addition, trucks leaving the designated disposal site will be decontaminated prior to entering highway 37.

## **SECTION 8.0 MEDICAL MONITORING**

### **8.1 Background**

This section is in compliance with 29 CFR 1910.120(f) and other substance-specific medical surveillance requirements found in 29 CFR 1910.1001-1051). The medical surveillance section of the Health and Safety Plan describes how worker health status is monitored at this site. Medical surveillance is used when there is the potential for worker exposure to hazardous substances at levels above OSHA permissible exposure limits or other published limits. The provisions for medical surveillance at this site are based on the site characterization and job hazard analysis found in Section 4.0 of this HASP and are consistent with OSHA requirements in 29 CFR 1910.120(f) and the following substance-specific requirements: Asbestos (1926.1101),



Lead (1926.62). The person with responsibility for ensuring this program is implemented and maintained is Sally Lopez.

## 8.2 Scope of Site Medical Surveillance Program

Based on the potential for worker exposure to hazardous substances or health hazards at this site, the medical surveillance program at this site contains the following provisions:

1. All personnel who enter contaminated areas of this site are covered by the medical surveillance program. In addition, all workers assigned to tasks requiring the use of respirators receive medical examinations in accordance with 29 CFR 1910.134(e) to ensure they are physically capable to perform the work and use the equipment.
2. Personnel within the medical surveillance program receive medical examinations on the following schedule:
  - **Prior to assignment:** personnel covered by the medical surveillance program are medically examined prior to commencing work in contaminated areas of the site. The purpose of this examination is to assess baseline health status and the worker's ability to perform anticipated duties wearing required PPE without adverse health effects. The pre-assignment medical examination must have been received within the past 12 months. The content of the exam must include, at a minimum, the items listed in paragraph 3 below, based on the hazards present at this site and anticipated work duties. A copy of the results of that examination, in the form of a physician's written opinion must be presented on site prior to entry into contaminated areas.
  - **On an annual basis:** personnel within the medical surveillance program receive medical exams at least every 12 months to provide for ongoing assessment of a worker's health status.
  - **At termination or reassignment:** personnel will be offered the opportunity for a medical examination upon their termination or reassignment to work where the worker is not exposed to hazardous materials or required to wear a respirator.
  - **Post-injury/illness:** any worker who is injured, becomes ill, or develops signs or symptoms of possible over-exposure to health hazards, will receive a medical examinations as soon as possible after the occurrence.

## 8.3 Types of Examinations for personnel within the medical surveillance program

- chest X-ray (every 2 years)
- pulmonary function test
- complete medical and work history
- possible blood tests for lead, if EPA testing reveals a problem

Medical monitoring will be required for those employees required to wear respirators. The regulation requires that an individual's ability to wear respiratory protection be medically certified before he/she performs designated duties.

If noise monitoring on site reveals 8 hour average exposures greater than 85 dBA, employees exposed will be required to wear hearing protection and to have audiometric testing as required under OSHA, 29 CFR1910.95(h), "Audiometric test requirements."

Medical documents are confidential and are securely maintained but will be made available as stipulated by OSHA.

#### **8.4 Communication Between the Site, Physicians, and Workers**

The medical facility providing medical monitoring and overexposure examinations required by personnel at this site is:

St. John's Lutheran Hospital  
350 Louisiana Avenue, Libby Montana  
Phone: 406-293-7761

A physician's written opinion of the results of these examinations is required for each worker and a copy is maintained on site. The contents of the written opinion is limited to:

- a statement of the worker's health status in relation to his or her job duties and a description of any detected medical condition that could put the worker at increased risk.
- notation of any recommended limitations in work activity or PPE use.
- confirmation that the physician has informed the employee of the examination results and any further examination or treatment required.

#### **8.5 Medical Recordkeeping Procedures**

The following items are maintained in worker medical records

- Respirator fit test and selection
- Physician's medical opinion of fitness for duty (pre-placement, periodic, termination)
- Physician's medical opinion of fitness for respirator protection (pre-placement, periodic)
- Exposure monitoring results

Records required under this medical surveillance program, consistent with 1910.120(f)(8), are kept accurate and updated and are available on site at in locked filing cabinet in site trailer.

#### **8.6 Program Review**

Every 6 months, the medical program is reviewed to ensure its effectiveness. Sally Lopez,

MARCOR Compliance Officer is responsible for this review. At a minimum, this review consists of:

- review of accident and injury records and medical records to determine whether the causes of accidents and illness are promptly investigated and whether corrective measures are taken wherever possible,
- evaluation of the appropriateness of required medical tests on the basis of site exposures, and
- review of emergency treatment procedures and emergency contacts list to ensure they are site-specific, effective, and current.

## **SECTION 9.0 PERSONNEL TRAINING**

The following training requirements must be met by all MARCOR employees and their contractors' employees.

### **9.1 Site workers**

- HAZWOPER 1910.120 training, 40-hour site worker course with current refresher training.
- Asbestos, 1926.1101, 40-hour worker course, which is equivalent in curriculum, training method and length to the EPA Model Accreditation Plan (MAP) asbestos abatement workers training (40 CFR Part 763, subpart E, appendix C).

### **9.2 Truck drivers, equipment operators**

- HAZWOPER 1910.120 training, 40-hour site worker course with acceptable refresher training.
- Asbestos, 1926.1101, 16-hour awareness course This is the same as maintenance personnel receive under 40 CFR 763.92(a)(2).

### **9.3 Supervisors**

- HAZWOPER 1910.120 training, 40-hour site worker course with acceptable refresher training
- HAZWOPER off-site training course of at least 8 hours meeting the requirements of 29 CFR 1910.120 (e) on supervisor responsibilities for safety and health at hazardous waste operations.
- Asbestos, 1926.1101, 40-hour awareness course.
- Asbestos, 1926.1101, supervisor course. This is competent person training in all aspects of asbestos removal and handling. Such training shall be obtained in a comprehensive course for supervisors that meet the criteria of EPA's Model Accredited Plan (40 CFR part 763, subpart E, Appendix C).

A written certificate of training is on file for each employee and supervisor requiring training.

**Site Specific Training:** Site specific training shall be provided to each employee before beginning work on the site. Personnel will be briefed by the SSHO as to the potential hazards to be encountered. Topics will include:

- Availability of this HASP.
- General site hazards and specific hazards in the work areas including those attributable to the chemicals present.
- Selection, use, testing and care of the body, eye, ear, hand, foot and respiratory protective equipment to be worn, with the limitations of each.
- Decontamination procedures for personnel, their personal protective equipment and other equipment used on the site.
- Emergency response procedures and requirements.
- Emergency alarm systems and other forms of notification and evacuation routes to be followed.
- Methods to obtain emergency assistance and medical attention.

## **SECTION 10.0 EMERGENCY RESPONSE**

This is the site-specific emergency response plan. This section of the Health and Safety Plan describes potential emergencies at this site, procedures for responding to those emergencies, roles and responsibilities during emergency response, and training that workers must receive in order to follow emergency procedures. This plan also describes the provisions this site has made to coordinate its emergency response planning with other contractors on site and with off-site emergency response organizations. This plan is consistent with the requirements of 29 CFR 1910.120(l) –the following sections comply with the OSHA requirements.

### **10.1 Pre-emergency planning**

The site has been evaluated for potential emergency occurrences, based on site hazards, the tasks within the work plan, the site topography, and prevailing weather conditions. Unlike many hazardous waste operations, the possibilities of fire, explosion, and chemical reactions are remote on the Libby site. The table below lists the most probable site emergencies.

<b>Type of emergency</b>	<b>Source of emergency</b>	<b>Location of source</b>
Fire	Operator error	Old Parker residence and trailer
Collision (person/equipment or equipment/equipment)	Operator error	Soil and debris hauling from site to mine
Heat stress/worker collapses	Excess heat combined with non-permeable garments	Throughout entire jobsite

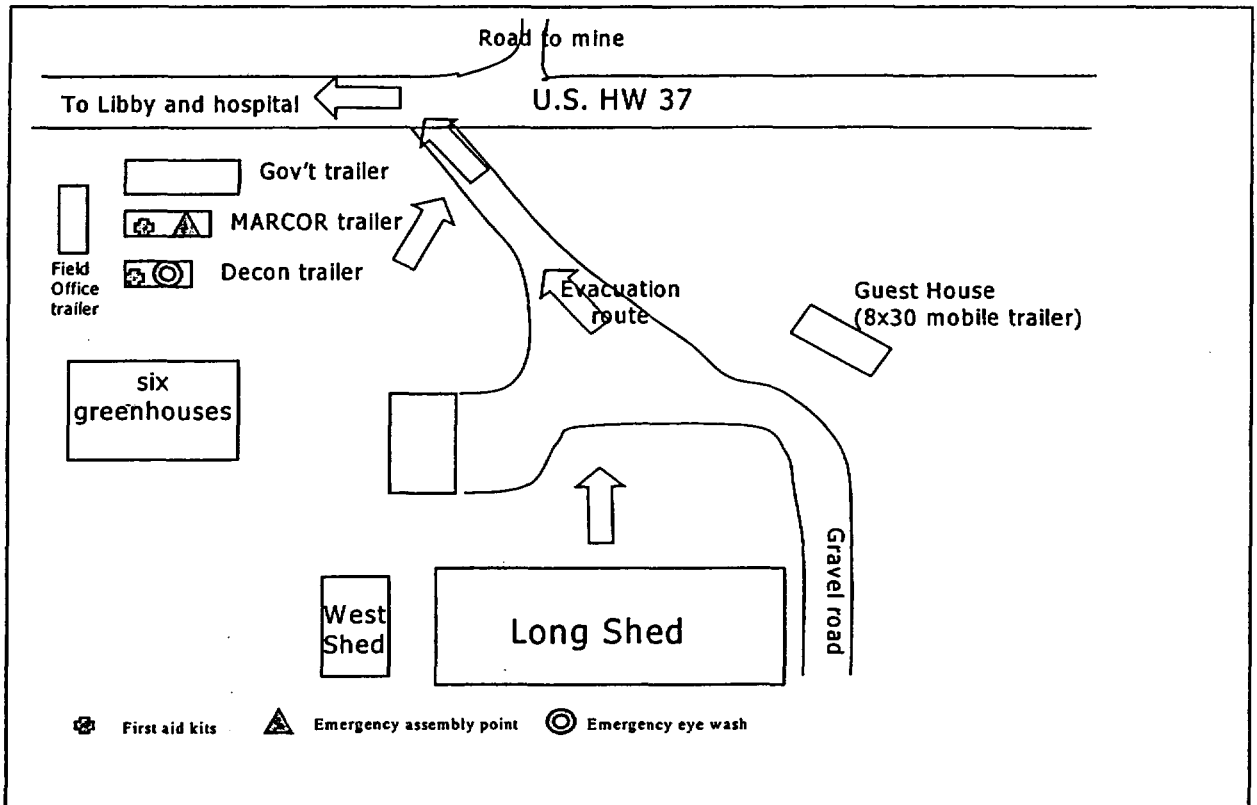
### **10.2 On-site emergency response equipment**

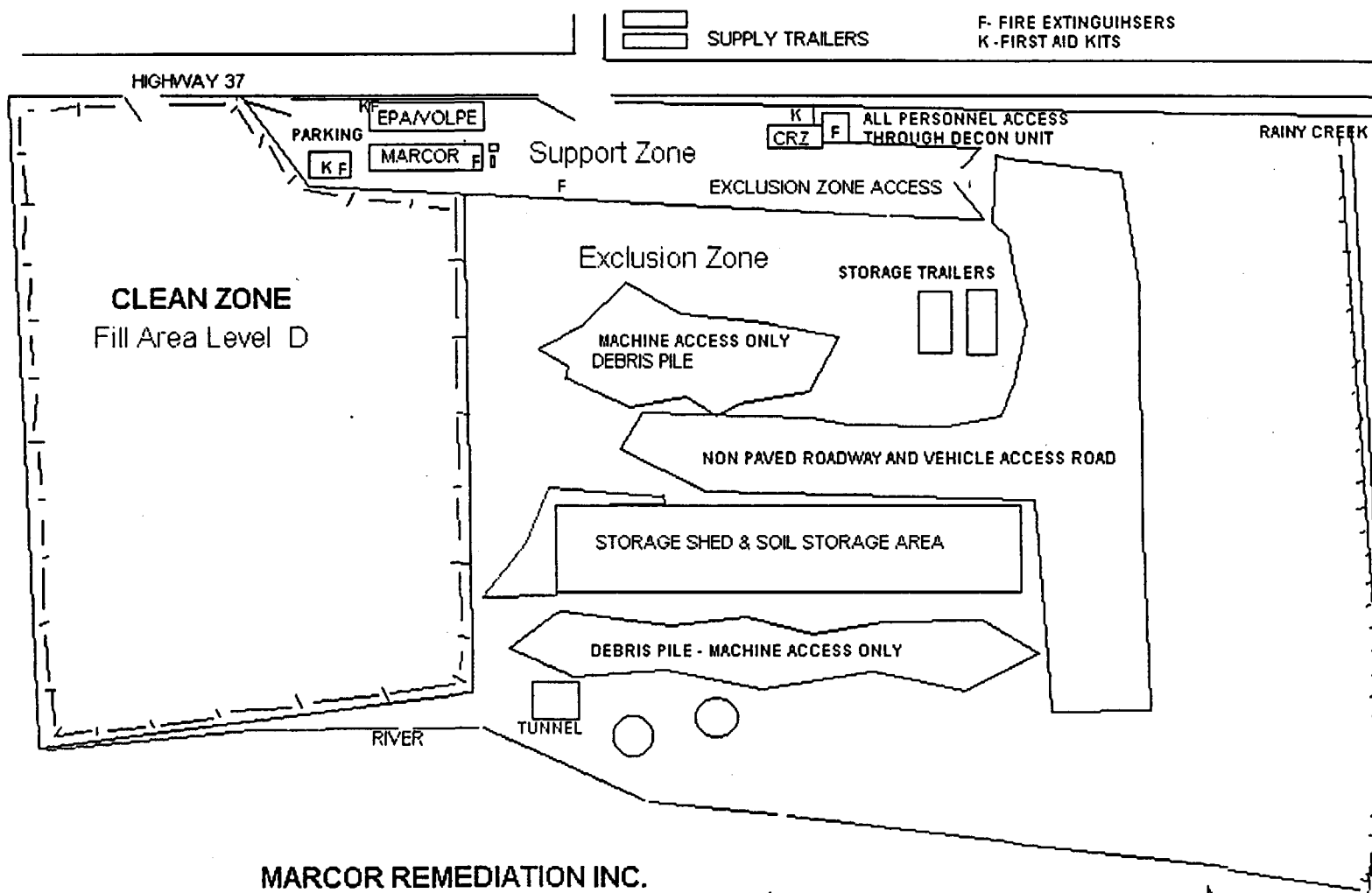
<b>Emergency equipment</b>	<b>Quantity stocked</b>	<b>Location stored</b>
First aid kit	2	MARCOR and decon trailers
Fire extinguishers	10	MARCOR trailer and in the trucks and PMs vehicle
Emergency eye washes	2	MARCOR trailer and decon trailer

An ABC fire extinguisher, intended for small fires, will be available on each operating piece of heavy equipment, in the Project Manager's (or his designee's) vehicle, and in the MARCOR trailer during all site activities. MARCOR personnel will be trained to only attempt to put out incipient fires and only after notifying the emergency response chain about the fire. When the fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SSHO (or designee) will determine the time to contact fire department and response personnel.

### 10.3 Emergency planning map

The following map contains key on-site emergency planning information, including evacuation routes, places of refuge, assembly points, and the location of key site emergency equipment.





MARCOR REMEDIATION INC.  
 LIBBY MONTANA - SITE REMEDIATION  
 PROJECT  
 SITE CONTROL ZONES 11/01/2000  
 NOT TO SCALE



#### 10.4 Roles and responsibilities for on-site and off-site personnel

The SSHO (or designee) will be responsible for implementing the emergency response plan and coordinating the emergency response activities on this site. The SSHO will:

1. Provide specific direction for emergency actions based upon information available regarding the incident;
2. Initiate emergency procedures, including protection of the public;
3. Notify appropriate individuals, authorities and/or health care facilities of the emergency situation;
4. Have working knowledge of safety equipment available at the site; and
5. Ensure that a map which details the most direct route to the nearest hospital is prominently posted with the emergency telephone numbers.

In the event of an emergency, MARCOR site personnel will evacuate and not participate in emergency response activities, except as indicated below:

1. Initiate notification to site personnel;
2. Coordinate communication with those outside the site;
3. Provide first aid; and
4. Decontaminate responders or victims.

#### 10.5 Emergency alerting and evacuation

Upon discovering an emergency situation, MARCOR personnel will notify ~~Frans Cox~~, Dan Figueroa, the SSHO (or his designee), who will evaluate available information and initiate a response. Site workers are alerted to emergencies through the use of an employee alarm system. An air horn will be stored in the site trailer and will be sounded for three blasts. This sound signal will be loud enough to be clearly heard above other noise present. The three blasts mean to stop immediately and go to the assembly point, the MARCOR trailer. Appropriate authorities will then be immediately notified of the nature and extent of the emergency.

The following standard hand signals will be used whenever necessary:

Hand gripping throat .....	Out of air, can't breath
Grip partner's wrist or both hands around waist.....	Leave area immediately
Hands on top of head .....	Need assistance
Thumbs up .....	Ok, I am all right, I Understand
Thumbs down.....	No, negative

#### 10.6 Emergency response

The SSHO, after investigating the incident and reviewing relevant information, determines the level of response required for containment, rescue, medical care, and clean-up. The emergency response team is mobilized to the incident site and supplied with sufficient members, PPE, and



emergency equipment. When the SSHO determines that on-site emergency response is inadequate for the emergency of that outside assistance is needed or otherwise required, he will confer with the EPA On-Scene Commander and defer to his judgment. Unless changed, the command center will be used as the safe refuge. In the case of an evacuation, the SSHO will account for all personnel. A log of all individuals entering and leaving the site will be kept so that everyone can be accounted for in an emergency.

#### **10.7 Emergency medical Treatment and first aid**

MARCOR has two workers with current first aid certification assigned to provide first aid during each shift. Because of this practice, MARCOR offers Hepatitis B vaccinations to workers who are assigned to provide first aid. A record of those vaccinations or the employee's declination is kept in their medical record files.

Personnel who require medical care and/or who are transferred to a medical facility are accompanied by MSDSs and other hazard information to apprise caregivers of the hazards to which the victim has been potentially exposed. The primary medical care facility for this site is St. John's Lutheran Hospital. The route is included on a map at the MARCOR trailer.

#### **10.8 Emergency response critique and plan updates**

After every emergency incident or evacuation of this site, Dan Figueroa, Project Manager, will evaluate the quality and safety of response activities. Any deficiencies in response actions will be included in a specific follow-up plan and corrected. An exposure incident reporting form will be completed by the SSHO, the Project Supervisor and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

This emergency response plan is evaluated periodically throughout site operations and updated for accuracy. Site workers receive notification and training on changes to the plan through MARCOR's regular tool-box safety talks where new issues are raised at the beginning of each work week.

Follow up activities must be completed before on site work is resumed following an emergency. All used emergency equipment must be recharged, refilled or replaced. Government agencies must be notified as appropriate. An investigation of the incident must be conducted as soon as possible. The resulting report must be accurate, objective, complete and authenticated (signed and dated).

#### **10.9 Emergency response contacts**

The table below shows Emergency Response Telephone Numbers. This table will be maintained at the work site by the SSHO.

## **EMERGENCY RESPONSE TELEPHONE NUMBERS**

Fire Department	<u>(406) 295-4411</u>
Police Department	<u>(406) 293-3343</u>
Ambulance	<u>(406) 293-4112</u>
Hospital	<u>(406) 293-7761</u>
Chemical Emergency Advice	<u>(800) 424-9300</u>

Should someone be transported to a hospital or doctor, a copy of this Health and Safety Plan must accompany them. Directions to the closest hospital, St. Johns Lutheran Hospital, are as follows:

Take Highway 37 towards the town of Libby. Upon entering the town, go left on East 3<sup>rd</sup> street towards Louisiana Avenue. At Louisiana Avenue, make a right. The hospital is at 350 Louisiana Avenue. A map is included.

### **10.9 Emergency decon procedures**

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Given the absence of acutely toxic chemicals at the Libby site, it is likely that the medical condition is much more life-threatening than possible asbestos contamination. Consequently, if the emergency is such that there is insufficient time to complete all of those actions, it is acceptable to remove the contaminated clothing without normal decon steps. This is particularly true if the worker has suffered what appears to be a heart attack, asthmatic attack, or heat stroke. Time is absolutely critical in these cases and the workers need to be attended immediately, not decontaminated.

## **SECTION 11.0 SPECIAL PRECAUTIONS**

### **Section 11.1 Heat Stress/Cold Injury Protection Program**

Formal training in prevention of heat and/or cold injuries will be provided as part of the site specific training. Informal review of these techniques will be made as part of daily pre work briefings. Any person who experiences signs of heat / cold related distress will be instructed to stop work immediately. Medical attention will be sought if there is any doubt that prompt and full recovery will result without it. Symptoms of temperature distress include muscle cramps, pale and clammy or hot, dry and flushed skin, confusion, disorientation and incoherent speech, nausea, numbness and/or convulsions. See attached Cold Stress / Heat Stress for standard operating procedures.

Cold water will be made easily accessible on this project and workers will be encouraged to drink every 20 minutes. The workers will be teamed in a buddy system and taught to look for the signs of heat exhaustion and heat stroke in their partner. MARCOR will make every effort to have a cool-off room available for the crew to cool off on breaks and at lunch on hot days.

## **Section 11.2 Heavy Machinery/Equipment**

Site employees must remain aware of those site activities that involve the use of heavy equipment and machinery. Respiratory protection, hearing protection and protective eye wear significantly reduces peripheral vision of the wearer. Therefore, it is essential that all employees at the site exercise extreme caution during operation of equipment and machinery to avoid physical injury to themselves or others.

## **Section 11.3 Construction Materials and Site Refuse**

All construction materials and site refuse will be contained in the specified appropriate areas. Site personnel should make certain that soils spoils, cuttings, etc., are not scattered throughout the area of activity and that trash and scrap materials are immediately and properly packaged and labeled.

## **Section 11.4 Additional Safety Practices**

The following are important safety precautions which will be enforced during this work:

1. There will be no eating, drinking or smoking in the exclusion or contamination reduction zone.
2. All personnel must pass through the contamination reduction zone to enter or exit the exclusion zone.
3. As a minimum, emergency eye washers will be on the hot side of the contamination reduction zone and/or at the work station.
4. An emergency deluge shower/spray cans are to be located on the clean side of the contaminated reduction area.
5. At the end of the work day, all personnel working in the exclusion area shall wash hands thoroughly with soap and water.
6. All supplied breathing air shall be certified as Grade D or better.
7. Where practical, all tools/equipment will be spark proof, explosion resistant, and/or bonded and grounded.
8. Medicine and alcohol can mask the effect from exposure to certain compounds. Controlled substances and alcoholic beverages must not be consumed by personnel involved in the project. Consumption of prescribed drugs must be at the direction of a physician familiar with the person's work.

9. An adequately stocked first aid kit will be on-scene at all times during operational hours. It is suggested that an oxygen inhalator respirator be available and a qualified operator present. The location of these items and the operator shall be posted.
10. Hands and face must be thoroughly washed upon leaving the contamination reduced zone and before eating, drinking or any other activity.
11. Contact with potentially contaminated surfaces should be avoided whenever possible. One should not walk through puddles, mud or other discolored surfaces, kneel on the ground, lean, sit or place equipment on drums, containers, vehicles or on the ground.
12. Air purifying respirators will be inspected daily by the SSHO.
13. Cartridges for air purifying respirators in use will be changed daily at a minimum.
14. No excessive facial hair which interferes with the effectiveness of a respirator will be permitted on personnel required to wear respiratory protection equipment. The respirator must seal against the face so that the wearer receives air only through the air purifying cartridges attached to the respirator. Fit testing will be performed prior to respirator use to ensure a proper seal is obtained by the wearer.
15. Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.
16. Legible and understandable precautionary labels shall be prominently affixed to containers of raw materials, intermediates, products, by-products, mixtures, scrap, waste, debris and contaminated clothing.

#### **Section 11.5 Daily Log Contents**

The Project Manager and the SSHO will establish a log in/out system appropriate to the site, that will record, at a minimum, the following information: Personnel on the site, their arrival and departure times and their destination on the site; Incidents and unusual activities that occur on site such as, but not limited to, accidents, spills, breaches of security, injuries, equipment failures and weather related problems; Conversations that may affect the work such as: (1) Media Visits, (2) Safety and Health Inspections by the SSHO and external agencies, (3) Owner/Agent Meetings, and (4) Employee/Union Meetings; Changes to the Work Plan and the Health and Safety Plan; Daily Information generated such as (1) Changes to the Work and Health and Safety Plans, (2) Work accomplished and the current site status, and (3) Air monitoring results; Personnel in PPE and times of PPE in contamination zone.

**Section 11.6 Plan Acknowledgment**

All site personnel have read the above plan and are familiar with its provisions.

	<b>PRINTED NAME</b>	<b>SIGNATURE</b>
Site Safety and Health Officer	Dan Figueroa	_____
	<del>Travis Cox</del>	_____
Project Manager	Dan Figueroa	_____
Site Superintendent	Marshall Reed	_____
	<del>Owen Clark</del>	_____
Other Site Personnel	James Tucker	_____
	_____	_____
	_____	_____
	_____	_____

**APPENDIX A**  
**DISMANTLING/DEMOLITION**

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**APPENDIX B**  
**EARTHWORK/EXCAVATION PLAN**

**APPENDIX C**  
**TRANSPORTATION/DISPOSAL**



**APPENDIX D**  
**EQUIPMENT DECONTAMINATION PLAN**

**APPENDIX E**  
**TRAFFIC CONTROL**

**APPENDIX F**  
**DUST CONTROL**

**APPENDIX G**  
**EROSION CONTROL**

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**APPENDIX H**  
**TEMPORARY FACILITIES**

**Attachment 7**

# CDM Federal Programs Corporation

consulting  
engineering  
construction  
operations

One Cambridge Place  
50 Hampshire Street  
Cambridge, MA 02139  
Tel: 617 452-6257 Fax: 617 452-8257

September 8, 2000

Mr. John McGuiggin, P.E.  
Task Order COTR  
U.S. Department of Transportation  
Volpe National Transportation Systems Center  
55 Broadway, Kendall Square  
Cambridge, Massachusetts 02142

Subject: Libby, Montana Screening Plant Site  
Project Safety Audit

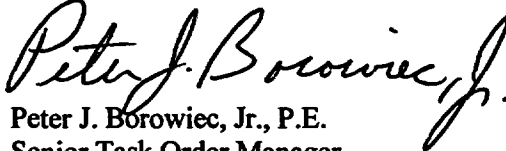
Dear Mr. McGuiggin:

Attached please find the results of the internal Project Safety Audit conducted for the Screening Plant Site on August 30, 2000.

Please contact me with any questions or comments you may have on this. We plan to have Bob Alexander, CDM Federal's Health & Safety Coordinator in Helena, Montana, perform the follow up audit early next week.

Very truly yours,

CDM FEDERAL PROGRAMS CORPORATION

  
Peter J. Borowiec, Jr., P.E.  
Senior Task Order Manager

cc: Timothy B. Wall  
Charles J. Myers  
Robert R. Alexander  
Robert J. Saiz

**HEALTH AND SAFETY COMPLIANCE  
ACTIONS AS OF 9/12/00**

1. BARRICADES IN PLACE AND CAUTION TAPE ADDED IN FRONT OF OPENINGS
2. EXTENSION CORD REMOVED FROM SITE
3. DAILY EXCAVATION LOG NEEDED TO BE DISCUSSED
4. DEBRIS PILE CAUTION TAPED OFF AND EMPLOYEES REMINDED TO AVOID DEBRIS PILE
5. EMERGENCY TELEPHONE NUMBERS POSTED
6. HAVE ORDERED TRAILER TIEDOWN COVERS
7. LADDERS IN ALL EXCAVATIONS
8. SIGNS FOR FIRE EXTINGUISHERS ORDERED
9. INSTALLED LIGHT TOWER AND TOLD OPERATORS TO HAVE EQUIPMENT LIGHTS ON WHEN INSIDE OF SHED
10. REPEATED ITEM?
11. CAUTION TAPED OFF AREA, OPENING ARE COVERED AND SAWHORSE INDICATING WHERE OPENINGS ARE

**COMMENTS**

**RESPIRATORY PROGRAM**

WENT OVER AT SAFETY MEETING THE ONLY THREE LOCATIONS FOR RESPIRATOR IE: FACE, HAND, OR IN BAG

**FIRE EXTINGUISHERS**

HAVE REQUESTED SIGNS AND TAGS FROM SUPPLIER  
TEMPORARY FUELING STATION TO BE REMOVED

**BREAK ROOM**

NOW HAS FIRE EXT.

TEMPORARY MICROWAVE SIGN IN PLACE ORDERED PERMANENT

**DEMO PLAN IN PLACE**

MSDS IN PLACE WENT OVER IN SAFETY MEETING LOCATIONS AND PERSON IN CHARGE OF SUCH



**2<sup>ND</sup> PAGE COMMENTS**

- 1. FLAMMABLE STORAGE CABINET ORDERED**
- 2. TEMPORARY FUELING STORAGE TO BE REMOVED**
- 3. HEARING PROTECTION AVAILABLE IN CLEAN ROOM**
- 4. ADDRESSED PREVIOUSLY**
- 5. ALL FORKLIFT OPERATORS ARE CERTIFIED**

# CDM Federal Project Safety Audit

Project: Screening Plant

Date: August 30, 2000

Location: Libby, Montana

Job Number: \_\_\_\_\_

Survey Conducted By: Robert J. Saiz

Title: CDM E&C H&S Director

Standard	Title	Compliance			Hazard Identified	Corrective Action Taken and Date
		In Compliance	Out of Compliance	N/A		
1926.59	Hazard Communication Program, List of Chemicals, Training, MSDSs.	T			Hazard Communication Plan found in Marcor's HASP	
1926.500 (b) & (d) (old standard)	Guardrails on open sided floors, floor holes and runways.		T		Bays in the Long Shed need to be barricade to protect employees from a fall exposure	
1926.404 (b)	Ground fault circuit interrupters or an assured equipment-grounding conductor program in use.		T		An electrical cord ground prong missing by office trailers-	

<i>Standard</i>	<i>Title</i>	In Compliance T	Out of Compliance T	N/A T	<i>Hazard Identified</i>	<i>Corrective Action Taken and Date</i>
1926.451 (b)	The employer shall instruct each employee in the recognition and avoidance of unsafe conditions.	T			Daily tool box meeting. No documentation provided.	
1910.134 (f)	Maintenance and care of respirators		T		Improper storage and cleaning of respirators	
1926.100 (a)	Head protection, where there is a possible danger of head injury.	T			All employees wearing head protection	
1926.652 (a) (1)	Excavation protective systems; examination by competent person when less than 5 feet in depth.		T		A daily log was not kept on excavation- Daily Excavation log needed.	
1926.20 (b) (2)	Employer responsibility to initiate and maintain safety and health programs.	T			Daily safety meetings	
1926.20 (b) (1)	Employer responsibility to provide for frequent and regular inspections by designated competent persons.	T				
1926.152 (e) (2)	Transfer of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded).		T		Temporary fueling did not have a bonding cable	
1926.1052 (c) (1)	Stair rail and handrail along each unprotected edge.			T		

Standard	Title	Compliance			Hazard Identified	Corrective Action Taken and Date
		In Compliance	Out of Compliance	N/A		
1926.25 (a)	Debris, scrap lumber with protruding nails, not cleared for work areas, stairs and around structures.	T			Housekeeping needs attention. Some debris has protruding nails	
1926.50	First aid shall be available in the absence of an infirmary, or other that is reasonably accessible; first aid supplies shall be accessible and telephone numbers posted.		T		Emergency numbers not posted. The location of OSHA poster is in the change room, not all employees have access to this information	
1926.152 (b) (1)	No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet.		T		Spray cans/ portable "gas can" must be stored outside or in an approved flammable cabinet when not in use.	
1926.651 (k) (1)	Excavations, protective systems, inspected daily by a competent person and as needed.		T		A competent person log needed for archeological excavation	
1926.403 (b) (2)	Employer shall ensure electrical equipment is free from recognized hazards, is suitable, is used in accordance with the listing, labeling or certification.	T				

Standard	Title	Compliance			Hazard Identified	Corrective Action Taken and Date
		In Compliance	Out of Compliance	N/A		
1926.152.(c) (3)	The storage area shall be graded in a manner to divert possible spills away from buildings or other exposures, or shall be surrounded by a curb or earth dike at least 12 inches high. When curbs or dikes are used, provisions shall be made for draining off accumulations of ground or rainwater, or spills of flammable or combustible liquids. Drains shall terminate at a safe location and shall be accessible to operation under fire conditions.	T			In compliance, but needs a little housekeeping	
1926.405 (g) (2)	Flexible cords shall be used without splice or tap; strain relief shall be provided.	T				
1926.405 (b)	Electrical boxes, fittings shall have covers, faceplates or canopy and holes shall be smooth where cords pass through; and unused openings in cabinets/boxes shall be closed.	T				
1926.701 (b)	Reinforcing steel onto which employees could fall shall be guarded.		T		Trailer tiedowns need to have a protective cover ie. rebar cap	

Standard	Title	Compliance			Hazard Identified	Corrective Action Taken and Date
		In Compliance	Out of Compliance	N/A		
1926.1053 (b) (1)	Portable ladder side rails extend at least 3 feet or be secured at top.			T		
1926.651 (j) (2)	Excavations shall have materials or equipment placed at least 2 feet from the edge.		T		Material around archeological dig need to be moved back at least 2 feet.	
1926.651 (c) (2)	Excavations shall have a safe means of egress such as ladders, ramps, etc.		T		Ladder needed for the archeological dig. No ladder in trenches for egress/access	
1926.150 (c) (1)	Portable fire fighting equipment shall be provided and extinguishers shall be inspected periodically.		T		Inspection tags in diesel re-fueling area needed. Signs identifying fire extinguisher also needed	
1926.102 (a) (1)	Eye and face protection shall be provided.	T				
1926.300 (b) (2)	Guards for power tools shall be used and moving parts of equipment shall be guarded.			T		
1926.350 (a) (9)	Oxygen cylinders in storage shall be separated from fuel gas cylinders by at least 20 feet or a 2 fire resistance barrier.	T				



Standard	Title	In Compliance	Out of Compliance	N/A	Hazard Identified	Corrective Action Taken and Date
1926.405 (a) (2) (ii) (e) & (f)	Temporary lights shall be protected from breakage, not suspended by their cords and extension cord.		T		Temporary lights needed in shed	
1926.405 (a) (2) (ii) (j)	Extension cords used with portable electric tools shall be of three wire type and designed for hard or extra hard usage.	T				
1926.105 (a)	Workplaces more than 25 feet above the ground or water shall have safety nets when ladder, safety line/belts, temporary floors, scaffolds, catch platform are not practical.			T		
1926.1051 (a)	Stairway or ladder shall be provided at all access points where there is a break in elevation of 19 inches or more.			T		
1926.451 (a) (2)	Scaffolding footing or anchorage shall be sound, rigid and capable of carrying the maximum intended load.			T		

Standard	Title	In Compliance		Out of Compliance		N/A	Hazard Identified	Corrective Action Taken and Date
		T	F	T	F			
1926.23 (a) (9)	Floor opening shall be guarded.			T			The floor opening in the existing tunnel needs to be protected from employees walking into open hole	
1926.404 (f) (7)	Electrical equipment connected by cord and plug shall be grounded except if there is an isolating transformer of the tool is double insulated.	T						
1926.556 (b) (2)	When working from an aerial lift, a full body harness and lanyard attached to the boom or basket.					T		
1926.501 (b) (1) (new standard)	Guardrails, safety nets or personal fall arrest system shall be used at 6 feet or more.			T			Employees working on top of the water truck need to be protected from fall exposure	
1926.451 (a) (14)	Scaffold planking shall extend over their end support not less than 6 inches and not more than 12 inches.					T		
1926.602 (d)	Powered Industrial Truck training			T			Employees not instructed on use of PIT (forklift). No formal program available onsite	



Standard	Title	In Compliance			Hazard Identified	Corrective Action Taken and Date
		T	F	N/A		
1926.602 (a) (9)	Bi-directional earth moving equipment shall have audible alarms.	T				
1926.451 (a) (3)	Scaffolding shall be erected, moved, dismantled or altered under the supervision of a competent person.			T		

**Comments:**

All information shall be followed up with to make sure the corrective actions have been taken...

**Recommendations:**

1. Provide a traffic control plan for employees crossing highway. The designated employee parking is across a busy highway and employee cross this highway without a designated pedestrian walkway.
2. Replace the OSHA/EEO Poster information with Montana state information rather than California information
3. Provide a hearing conservation program on all heavy equipment operators.
4. Recommend leatherwork boots or rubber boots with steel shank soles should be worn at all times. Construction debris may penetrate the rubber boots provide for the site.

**Attachment 8**

# NOISE EVALUATION

Name of Hygienist: Frank Garrett

EMPLOYEE NAME: JAMES HICKS Emp#  
EMPLOYEE ASSIGNMENT: VOLVO ARTICULATED DUMP TRUCK

DATE:	21-Sep-00
Start Time:	7:15
Run Time:	4:42:23 hrs
Dose T	38.9
LavgMax	81.4 dB
DoseC	26.3
AvgC	73.2 dB
Max	84.1 dB
Max Duration	0:00:45 second
P Dose	25

OSHA Level C Weighing 85 dB

Maximum Level of exposure average is 85dB - you have not exceeded this level.

I, James Hicks, understand and am aware that if I choose to use approved hearing protection it must have a Noise Reduction Rating of 29NRR or greater. By use of this protection I will be able to reduce the potential for hearing loss or damage.

Signed By \_\_\_\_\_

Signature of Hygienist: \_\_\_\_\_  
Frank Garrett

Witnessed By: \_\_\_\_\_

# NOISE EVALUATION

Name of Hygienist: Frank Garrett

EMPLOYEE NAME: RANDY NIXON Emp#  
EMPLOYEE ASSIGNMENT: 400 SERIES EXCAVATOR

DATE:	21-Sep-00
Start Time:	12:45
Run Time:	5:15:30 hrs
Dose T	44.6
LavgMax	83.5 dB
DoseC	29.2
AvgC	72.5 dB
Max	84.3 dB
Max Duration	0:15:10 second
P Dose	41

OSHA Level C Weighing 85 dB

Maximum Level of exposure average is 85dB - you have not exceeded this level.

I, Randy Nixon, understand and am aware that if I choose to use approved hearing protection it must have a Noise Reduction Rating of 29NRR or greater. By use of this protection I will be able to reduce the potential for hearing loss or damage.

Signed By \_\_\_\_\_

Signature of Hygienist: \_\_\_\_\_  
Frank Garrett

Witnessed By: \_\_\_\_\_

# NOISE EVALUATION

Name of Hygienist: Frank Garrett

EMPLOYEE NAME: ROBERT BROWN Emp# 30115  
EMPLOYEE ASSIGNMENT: D8 DOZER

DATE:	20-Jan-00
Start Time:	16:30
Run Time:	1:05:22 hrs
Dose T	21.6
LavgMax	84.6 dB
DoseC	9.8
AvgC	79.9 dB
Max	91 dB
Max Duration	0.11 second
P Dose	30.8

OSHA Level C Weighing 85 dB

Maximum Level of exposure average is 85dB - you have not exceeded this level.

I, Robert Brown, understand and am aware that if I choose to use approved hearing protection it must have a Noise Reduction Rating of 29NRR or greater. By use of this protection I will be able to reduce the potential for hearing loss or damage.

Signed By \_\_\_\_\_

Signature of Hygienist: \_\_\_\_\_  
Frank Garrett

Witnessed By: \_\_\_\_\_

# NOISE EVALUATION

Name of Hygienist: Frank Garrett

EMPLOYEE NAME: ANTONIO CORTEZ Emp# 303150  
EMPLOYEE ASSIGNMENT: WATER TRUCK OPERATIONS

DATE:	22-Sep-00
Start Time:	7:03:00 AM
Run Time:	4:45:31 hrs
Dose T	35.6
LavgMax	86.4 dB
DoseC	23.5
AvgC	83.4 dB
Max	123.3 dB
Max Duration	0.57 second
P Dose	60.2

OSHA Level C Weighing 85 dB

Maximum Level of exposure average is 85dB - you have exceeded this level by 1.4dB. This makes the use of Hearing protection a requirement of your continued operation on the project site in this work assignment.

I, Antonio Cortez, understand and am aware that I am required to use approved hearing protection with a Noise Reduction Rating of 29NRR or greater. By use of this protection I will be able to reduce the potential for hearing loss or damage.

Signed By \_\_\_\_\_

Signature of Hygienist: \_\_\_\_\_  
Frank Garrett

Witnessed By: \_\_\_\_\_

**Attachment 9**

**CDM** Federal Programs Corporation  
A Subsidiary of Camp Dresser & McKee Inc.

consulting  
engineering  
construction  
operations

13135 Lee Jackson Memorial Highway  
Suite 200  
Fairfax, Virginia 22033  
Tel: (703) 968-0900 Fax: (703) 968-0915

September 20, 2000

John McGuiggin, PE  
DTS-33, Building 1, Room 11-74  
US DOT/ RSPA / Volpe Center  
55 Broadway, Kendall Square  
Cambridge, MA 02142

Subject: Health and Safety Plan – Libby, Montana

Dear Mr. McGuiggin:

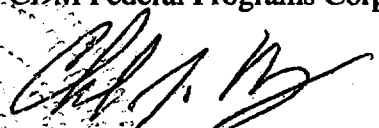
Per your request, I've reviewed the current and anticipated activities of Volpe personnel associated with the Libby, Montana site and have found them to be consistent with activities being performed by CDM Federal employees also assigned to this project. As such, if Volpe personnel were to elect to work in accordance with the provisions outlined in CDM Federal's site-specific health and safety plan (HASP) for this project, and the applicable sections from CDM Federal's Health and Safety Program, they would meet the requirements of 29CFR1910.120 (b) (4). Volpe personnel assigned to this project site should review the HASP and sign the acknowledgement form.

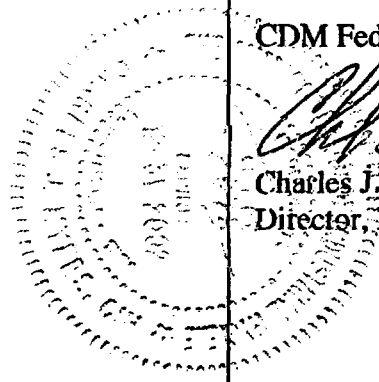
Use of CDM Federal's HASP by Volpe personnel for activities associated with the Libby, Montana site does not warrant compliance with other applicable local, state and federal regulations, i.e., hazard communication, respiratory protection, personal protective equipment, etc.

Please advise if you have any questions.

Sincerely,

CDM Federal Programs Corporation

  
Charles J. Myers, CIH  
Director, Health and Safety Programs





**HEALTH AND SAFETY PLAN FORM**

CDM FEDERAL PROGRAMS CORPORATION

CDM Federal Health and Safety Program

PROJECT NAME: Libby Asbestos Project - Emergency Response WORK ASSIGNMENT #: \_\_\_\_\_ REGION: VIII  
 JOBSITE ADDRESS: 501 Mineral Avenue CLIENT: USDOT Volpe National Transportation Systems Center  
Libby, Montana 59923 PROJECT: Libby, Montana Asbestos Removal  
 DOT CONTACT: John McGuiggin, TOCOTR EPA CONTACT: Paul Peronard, EPA OSC  
 PHONE #: (617) 494-2574 PHONE #: (303) 312-6808

**OBJECTIVES OF FIELD WORK:**

The purpose of this sampling effort is to acquire information useful for the design of more comprehensive environmental exposure investigations to assess the magnitude and extent of residential exposure to toxicologically relevant asbestos fibers and to provide construction oversight of remedial activities.

Remedial activities include excavation of test pits, excavation, handling and trucking of asbestos contaminated soils, building demolitions, equipment and personnel decontamination confirmatory soil sampling, air sampling and related activities at the Screening Plant Site (OU2) and Export Plant Site (OU1).

**TYPE:** Check as many as applicable

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Active               | <input type="checkbox"/> Landfill                | <input type="checkbox"/> Unknown                       |
| <input checked="" type="checkbox"/> Inactive  | <input checked="" type="checkbox"/> Uncontrolled | <input type="checkbox"/> Military                      |
| <input type="checkbox"/> Secure               | <input checked="" type="checkbox"/> Industrial   | <input checked="" type="checkbox"/> Other: Residential |
| <input checked="" type="checkbox"/> Unsecured | <input type="checkbox"/> Recovery                |  |
| <input type="checkbox"/> Enclosed Space       | <input type="checkbox"/> Well Field              |  |

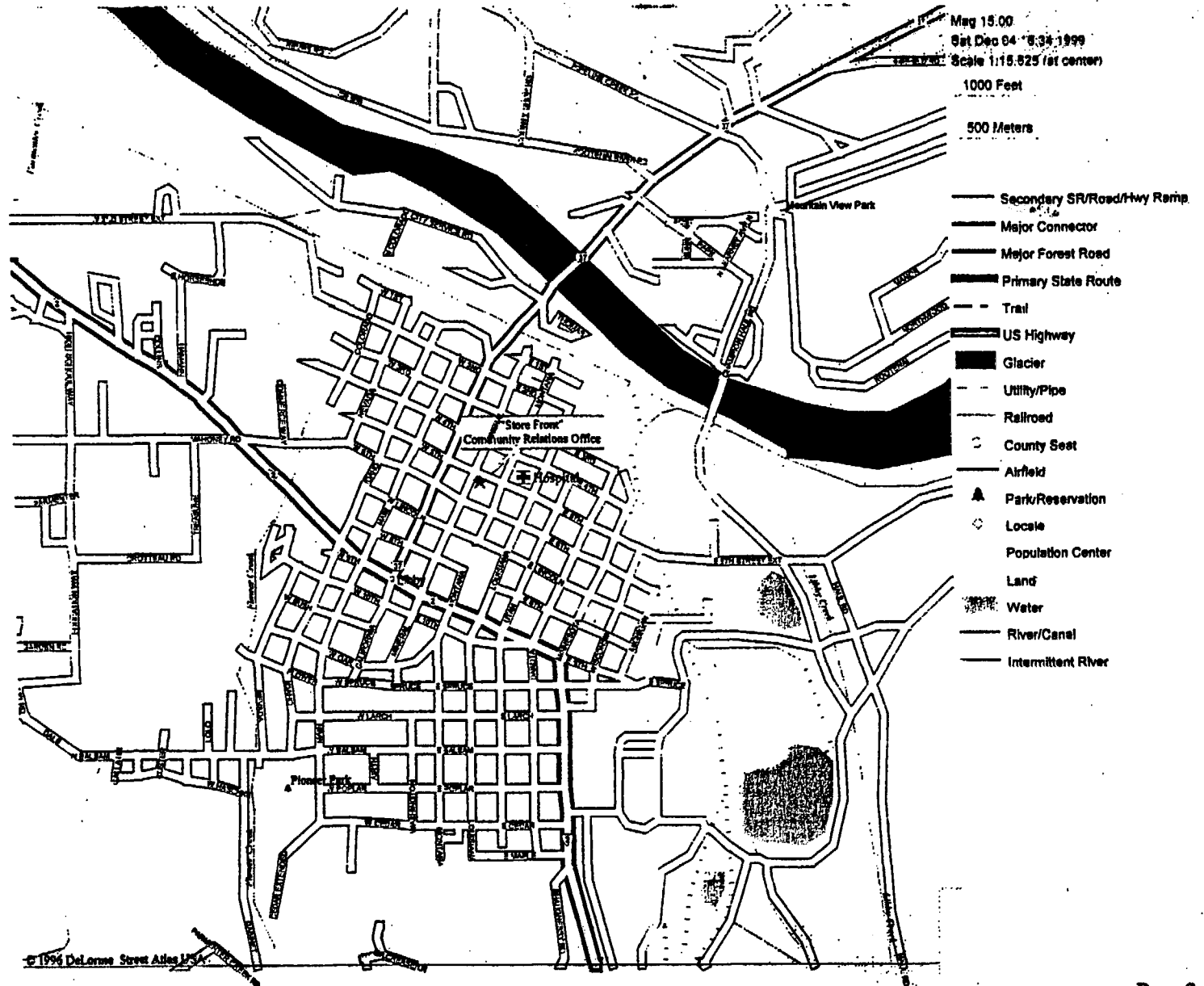
**DESCRIPTION AND FEATURES:**

The town of Libby is located in the extreme northwest corner of Montana. According to historical mining records, 80 percent of the world's vermiculite came from the Zonolite Mountains in Libby, Montana. Vermiculite is used in various building materials and textiles. Along with the enormous deposits of vermiculite mined in the Zonolite Mountains, millions of tons of tremolite, a rare and exceedingly toxic form of asbestos, was unearthed and released into the environment as a by-product of this mining and processing activity. This toxic asbestos is suspected to be affecting the health of the residents of Libby. Due to this imminent threat to human health, the USEPA has requested emergency environmental response support from the Volpe Center.

**SURROUNDING POPULATION:**  Residential  Industrial  Rural  Urban  Other:

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Site Location Map



**HEALTH AND SAFETY PLAN FORM**

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**HISTORY:**

It is estimated that tons of asbestos were released into the air during more than six decades of vermiculite mining at Zonolite Mountain, three miles east of Libby. The Zonolite Mine began operation in 1924 by owner Edward Alley. In 1925, Great Northern Railroad shipped the first boxcar of "Zonolite" from Libby to an Ohio company that used it to insulate bank vaults, office safes, and filing cabinets. Other firms used the material to make building boards and roofing materials. Processing the material was a straightforward process. The vermiculite ore was stripped from the mine and hauled in trucks to a mill, where it was separated into various commercial sizes through a screening system. Some of the ore was shipped untouched. Other material was sent to an expansion plant where it was run through ovens at about 2,000 degrees, causing it to expand to 15 times its original size. In 1939, Zonolite merged with another company mining at the bottom of the hill that eventually became known as the Zonolite Co. In 1963, the company was sold to W.R. Grace and Co. who expanded the operation and increased production. Through the '60s, '70s, and '80s, millions of tons of vermiculite ore was hauled by rail to Grace plants and other companies in 30 states and six foreign countries. At one time, 80 percent of the world's vermiculite came from Libby. The W.R. Grace Company, which owned the mine for 30 years, closed it in 1990 and sold the property four years later.

**WASTE TYPES:** ( ) Liquid (X) Solid ( ) Sludge ( ) Gas ( ) Unknown ( ) Other (Specify):

**WASTE CHARACTERISTICS:** Check as many applicable.

- ( ) Corrosive ( ) Flammable ( ) Radioactive  
 (X) Toxic ( ) Volatile ( ) Reactive  
 ( ) Inert Gas ( ) Unknown (X) Other: Carcinogenic

**WORK ZONES:**

Work zones will be used during remedial activities and soil sampling and during residential dust/air sampling. The exclusion zone will be areas in close proximity to intrusive activities and soil excavation and sampling areas and the interior of residences. The contamination reduction zone will be demarcated by the decontamination station set up at each active work area and sampling site. The support zone will be considered the 10-foot perimeter around support vehicles.

**HAZARDS OF CONCERN:**

- ( ) Heat Stress attach guidelines (X) Noise  
 (X) Cold Stress attach guidelines ( ) Inorganic Chemicals  
 ( ) Explosive/Flammable ( ) Organic Chemicals  
 ( ) Oxygen Deficient (X) Motorized traffic  
 ( ) Radiological (X) Heavy Machinery  
 ( ) Biological: (X) Slips, Trips, & Falls  
 (X) Other: Inhalation of particulate matter

**PRINCIPLE DISPOSAL METHODS AND PRACTICES:**

The mine on Zonolite Mountain is now dormant and its buildings dismantled. When in operation, company records indicate that nearly 300,000 pounds of asbestos a day went through the companies "dry mill", the primary ore processing facility and dustiest building on the property. Tests in 1969 showed that 24,000 pounds of dust a day were expelled from the large stack on the dry mill. The dust was about 20 percent asbestos. Several other stacks were in operations as well. Piles of waste material remain at the site. The material was also used by citizens as fill, covers on ball parks, gardens, and home insulation.

Raw vermiculite was graded, sorted and stored at the Screening Plant and conveyed to a Railroad loading area. Vermiculite was heated or "popped" at the Export Plant Site, bagged and stored, and ultimately loaded onto Railroad cars for distribution.

HEALTH AND SAFETY PLAN FORM

CDM FEDERAL PROGRAMS CORPORATION

CDM Federal Health and Safety Program

HAZARDOUS MATERIAL SUMMARY: *Circle waste type*

CHEMICALS: Amount/Units:	SOLIDS: Amounts/Units:	SLUDGES: Amounts/Units:	SOLVENTS: Amounts/Units:	OILS: Amounts/Units:	OTHER: Amounts/Units:
Acids	Flyash	Paint	Halogenated (chloro, bromo)	Oily Wastes	Laboratory
Pickling Liquors	✓Asbestos	Pigments	Solvents	Gasoline	Pharmaceutical
Caustics	✓Milling/Mine Tailings	Metal Sludges	Hydrocarbons	Diesel Oil	Hospital
Pesticides	Ferrous Smelter	POTW Sludge	Alcohols	Lubricants	Radiological
Dyes/Inks	Non-ferrous Smelter	Aluminum	Ketones	PCBs	Municipal
Cyanides	<u>Metals</u>	Distillation Bottoms	Esters	Polynuclear Aromatics	Construction
Phenols	Other: <u>Fe, Mn, Ni, Cd, Zn, Pb, Cu, Ag, Cr</u>	Other:	Esters	Other:	Munitions
Halogens			Other:		Other: Demolition debris
Dioxins					
Other:					

OVERALL HAZARD EVALUATION: ( ) High ( ) Medium (X) Low ( ) Unknown (Where tasks have different hazards, evaluate each. Attach additional sheets if necessary.)

JUSTIFICATION: CDM Federal personnel will avoid unnecessarily agitating suspect materials and visibly dusty conditions.

FIRE/EXPLOSION POTENTIAL: ( ) High ( ) Medium (X) Low ( ) Unknown

BACKGROUND REVIEW: (X) Complete ( ) Incomplete Additional information to be collected in future investigations.

**HEALTH AND SAFETY PLAN FORM**

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**CDM Federal Health and Safety Program**

KNOWN CONTAMINANTS	HIGHEST OBSERVED CONCENTRATION (specify units and media)	IDLH PEL/TLV ppm or mg/m <sup>3</sup> (aerosol)	IDLH ppm or mg/m <sup>3</sup> (aerosol)	WARNING CONCENTRATION ppm	SYMPTOMS/EFFECTS OF ACUTE EXPOSURE	PHOTOIONIZATION POTENTIAL
Asbestos	2% (S)	0.1 f/cc	N/A	N/A	Assumed to be similar to overexposure of nuisance dust.	

NA = Not Available    NE = None Established    U = Unknown    OFF = Off-site    D = Drums    L = Lagoon  
 S = Soil    SW = Surface Water    T = Tailings    W = Waste    TK = Tanks    SD = Sediment  
 A = Air    GW = Groundwater    SL = Sludge

**HEALTH AND SAFETY PLAN FORM**

CDM FEDERAL PROGRAMS CORPORATION

CDM Federal Health and Safety Program

**FIELD ACTIVITIES COVERED UNDER THIS PLAN:**

Task Description/Specific Technique-Standard Operating Procedures/Site Location (attach additional sheets as necessary)	TYPE	PRIMARY	CONTINGENCY	HAZARD SCHEDULE
1. Soil sampling	<u>Intrusive</u>	<u>D Modified</u>	<u>C Exit Area</u>	<u>Low</u>
2. Residential dust/air sampling	<u>Agitation</u>	<u>C Modified</u>	<u>Exit Area</u>	<u>Low</u>
3. Removal Action oversight		<u>D Modified</u>	<u>Exit Area</u>	<u>Low</u>
4. See Page 1				

**\*PERSONNEL AND RESPONSIBILITIES (Include subcontractors)**

NAME	FIRM/REGION	CDM Federal HEALTH CLEARANCE	RESPONSIBILITIES	ON SITE?
Bob Alexander	CDM Federal Helena	Yes	Field Project Manager/Field Team Leader/Site Health and Safety Coordinator	<u>1 - 2-3</u>
Joseph Newton, Peter Borowiec	CDM Inc. Cambridge	Yes	Resident Const. Inspector, Project Manager	<u>1 - 2-3</u>
Brian Stewart	Pacific Env. Services	Yes	Field Team Leader/Field scientist	<u>1 - 2-3</u>
Curt Coover, David Shanight	CDM Federal Helena	Yes	Field scientists	<u>1 - 2-3</u>
Randy Huffsmith, Darrel Stordahl, Dave Swanson, John Kotson, Jeff Jones	CDM Inc. Helena	Yes	Field scientists	<u>1 - 2-3</u>
Michael Hutchinson, Lisa Nickens	CDM/AGI Bellevue, WA	Yes	Field geologists/technicians	<u>1 - 2-3</u>

**HEALTH AND SAFETY PLAN FORM**

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CDM Federal Health and Safety Program

Protective Equipment: *Specify by task. Indicate type and/or materials, as necessary. Use copies of this sheet if necessary.*

**BLOCK A: TASK: 1**  
**LEVEL: D - MODIFIED**

PRIMARY  
 CONTINGENCY

Respiratory:  Not Needed  
 SCBA, Airline: \_\_\_\_\_  
 APR: \_\_\_\_\_  
 Cartridge: \_\_\_\_\_  
 Escape Mask: \_\_\_\_\_  
 Other: \_\_\_\_\_

Head and Eye:  Not Needed  
 Safety Glasses: \_\_\_\_\_  
 Face Shield: \_\_\_\_\_  
 Goggles: \_\_\_\_\_  
 Hard Hat: \_\_\_\_\_  
 Other: \_\_\_\_\_

Boots:  Not Needed  
 Boots: Leather steel-toed work boots  
 Overboots: Rubber

Protective Clothing:  Not Needed  
 Encapsulated Suit: \_\_\_\_\_  
 Splash Suit: \_\_\_\_\_  
 Apron: \_\_\_\_\_  
 Tyvek: \_\_\_\_\_  
 Saranex: \_\_\_\_\_  
 Coverall: Cloth  
 Other: \_\_\_\_\_

Gloves:  Not Needed  
 Undergloves: \_\_\_\_\_  
 Gloves: Nitrile or Latex  
 Overgloves: \_\_\_\_\_  
 Other: Specify Below

**BLOCK B: TASK: 1**  
**LEVEL: C - MODIFIED**

PRIMARY  
 CONTINGENCY

Respiratory:  Not Needed  
 SCBA, Airline: \_\_\_\_\_  
 APR: Full or Half Face  
 Cartridge: P100  
 Escape Mask: \_\_\_\_\_  
 Other: \_\_\_\_\_

Head and Eye:  Not Needed  
 Safety Glasses: \_\_\_\_\_  
 Face Shield: \_\_\_\_\_  
 Goggles: \_\_\_\_\_  
 Hard Hat: \_\_\_\_\_  
 Other: \_\_\_\_\_

Boots:  Not Needed  
 Boots: Leather steel-toed work boots  
 Overboots: Rubber

Protective Clothing:  Not Needed  
 Encapsulated Suit: \_\_\_\_\_  
 Splash Suit: \_\_\_\_\_  
 Apron: \_\_\_\_\_  
 Tyvek: \_\_\_\_\_  
 Saranex: \_\_\_\_\_  
 Coverall: \_\_\_\_\_  
 Other: \_\_\_\_\_

Gloves:  Not Needed  
 Undergloves: \_\_\_\_\_  
 Gloves: Nitrile or Latex  
 Overgloves: \_\_\_\_\_  
 Other: Specify Below

**BLOCK C: TASK: 2**  
**LEVEL: C - MODIFIED**

PRIMARY  
 CONTINGENCY

Respiratory:  Not Needed  
 SCBA, Airline: \_\_\_\_\_  
 APR: Full or Half Face  
 Cartridge: P100  
 Escape Mask: \_\_\_\_\_  
 Other: \_\_\_\_\_

Head and Eye:  Not Needed  
 Safety Glasses: \_\_\_\_\_  
 Face Shield: \_\_\_\_\_  
 Goggles: \_\_\_\_\_  
 Hard Hat: \_\_\_\_\_  
 Other: \_\_\_\_\_

Boots:  Not Needed  
 Boots: Leather, steel-toed work boots  
 Overboots: Tyvek booties

Protective Clothing:  Not Needed  
 Encapsulated Suit: \_\_\_\_\_  
 Splash Suit: \_\_\_\_\_  
 Apron: \_\_\_\_\_  
 Tyvek: \_\_\_\_\_  
 Saranex: \_\_\_\_\_  
 Coverall: \_\_\_\_\_  
 Other: \_\_\_\_\_

Gloves:  Not Needed  
 Undergloves: \_\_\_\_\_  
 Gloves: Nitrile or Latex  
 Overgloves: \_\_\_\_\_  
 Other: Specify Below

**BLOCK D: TASK: 2 & 3**  
**LEVEL: LEAVE AREA**

PRIMARY  
 CONTINGENCY

Respiratory:  Not Needed  
 SCBA, Airline: \_\_\_\_\_  
 APR: \_\_\_\_\_  
 Cartridge: \_\_\_\_\_  
 Escape Mask: \_\_\_\_\_  
 Other: \_\_\_\_\_

Head and Eye:  Not Needed  
 Safety Glasses: \_\_\_\_\_  
 Face Shield: \_\_\_\_\_  
 Goggles: \_\_\_\_\_  
 Hard Hat: \_\_\_\_\_  
 Other: \_\_\_\_\_

Boots:  Not Needed  
 Boots: \_\_\_\_\_  
 Overboots: \_\_\_\_\_

Protective Clothing:  Not Needed  
 Encapsulated Suit: \_\_\_\_\_  
 Splash Suit: \_\_\_\_\_  
 Apron: \_\_\_\_\_  
 Tyvek: \_\_\_\_\_  
 Saranex: \_\_\_\_\_  
 Coverall: \_\_\_\_\_  
 Other: \_\_\_\_\_

Gloves:  Not Needed  
 Undergloves: \_\_\_\_\_  
 Gloves: \_\_\_\_\_  
 Overgloves: \_\_\_\_\_  
 Other: Specify Below

**HEALTH AND SAFETY PLAN FORM**

**CDM FEDERAL PROGRAMS CORPORATION**

CDM Federal Health and Safety Program

Monitoring Equipment: *Specify by task. Indicate type as necessary. Attach additional sheets as necessary.*

<b>INSTRUMENT</b>	<b>TASK</b>	<b>ACTION GUIDELINES</b>		<b>COMMENTS (includes schedules of use)</b>
Combustible Gas Indicator	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed			Entering tanks, vats, sumps and other confined spaces is strictly forbidden.
Radiation Survey Meter	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed			Radiation is not an expected hazard.
Photoionization Detectors  ( ) 11.7 eV ( ) 10.2 eV ( ) 9.8 eV ( ) ___ eV Type _____	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed	Specify:  Detectable odor	If odor of any kind is detected, cease work, move to fresh air.	If further work is necessary in the area where odors were detected, personnel protection will be evaluated.
Flame Ionization Detector Type _____	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed	Specify:  Detectable odor	If odor of any kind is detected, cease work, move to fresh air.	If further work is necessary in the area where odors were detected, personnel protection will be evaluated.
Detector Tubes/Monitor Type _____	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed	Specify:		Toxic gases are not expected to be encountered. Entrance into confined spaces where toxic gases could be concentrated is strictly forbidden.
Respirable Dust Monitor Type <u>PDM-3 Miniram</u>	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed	Specify:	If team observes visible dust in air while working on or near the site they will cease work.	If dusty conditions persist, site will be abandoned and personnel protection reevaluated.
Other Specify:	1-2-3-4-5-6 <input checked="" type="checkbox"/> Not Needed	Specify:	If team members notices eye or throat irritation, or other symptoms of exposure, they will cease work.	



**HEALTH AND SAFETY PLAN FORM**

**CDM FEDERAL PROGRAMS CORPORATION**

**CDM Federal Health and Safety Program**

**DECONTAMINATION PROCEDURES:**

**PERSONALIZED DECONTAMINATION:**

Wash well before hand to mouth contact is employed. A shower will be taken as soon as possible after leaving the field. Workers will remove protective clothing in this order:

- 1) Wash overboots in soapy water and rinse
- 2) Remove overboots or booties
- 3) Remove gloves
- 4) Remove safety glasses
- 5) Remove Tyvek or cloth coverall, if used
- 6) Remove respirator, if used
- 7) Remove inner gloves
- 8) Wash hands/face before eating/drinking

Not Needed

**SAMPLING EQUIPMENT DECONTAMINATION:**

See CDM Federal SOP 4-5. All sampling equipment will be thoroughly decontaminated as follows:

- 1) Wash and scrub with low phosphate detergent.
- 2) Potable tap water rinse.
- 3) Potable tap water rinse.
- 4) Thoroughly rinse with deionized water.
- 5) Air dry.
- 6) Wrap in aluminum foil for transport.

Not Needed

**HEAVY EQUIPMENT DECONTAMINATION:**

See CDM Federal SOP 4-5. All heavy equipment and tool parts that contact subsurface soil are constructed of heavy gauge steel and have no natural or synthetic components that could absorb and retain most soil-borne organic contaminants.

Prior to removal from the work site, potential contaminated soil/groundwater will be scraped or brushed from the exterior surfaces.

The drill rig, augers and any other large equipment in the exclusion zone will be taken to a decon pad and steam cleaned.

Not Needed

**CONTAINMENT AND DISPOSAL METHOD:**

All disposable PPE will be double bagged prior to disposal. Decon water to be disposed on-site.

Not Needed

**CONTAINMENT AND DISPOSAL METHOD:**

Decon water to be disposed on-site.

Not Needed

**CONTAINMENT AND DISPOSAL METHOD:**

All derived liquids will be contained and held for appropriate disposal.

Not Needed

**HEALTH AND SAFETY PLAN FORM**

CDM FEDERAL PROGRAMS CORPORATION

## CDM Federal Health and Safety Program

**EMERGENCY CONTACTS:**

Water Supply N/A  
 Site Telephone (406) 293-6194  
 EPA Release Report #: (800) 424-8802  
 CDM 24-Hour Emergency: (703) 732-1629  
 Facility Management: N/A  
 Other (specify):  
 CHEMTREC Emergency: (800) 424-9300

**EMERGENCY CONTACTS:**

NAME:	PHONE:
Health and Safety Manager	Chuck Myers (703) 968-0900
Project Manager	Bob Rennick (406) 443-7559
Site Safety Coordinator	Bob Alexander (406) 443-7559
DOT Contact	John McGuiggin (617)494-2574
EPA Contact	Paul Peronard (303)312-6808
Environmental Agency	(800) 234-5677
State Spill Number	911
Fire Department-Libby	911
Police Department-Libby	911
Sheriff's Department-Lincoln County	(460) 293-4112
Highway Patrol	(800) 525-5555
Health Department	(406) 293-7781
Poison Control Center	(800) 525-5042
Occupational Physical	Edward Barnes (800) 229-3674

**CONTINGENCY PLANS: Summarize below.**

Evacuate site if any unexpected hazardous conditions are encountered. If staff observe hazards for which they have not been prepared, they will withdraw from the area and call CDM Federal Health and Safety. CDM Federal personnel will leave the site and upgrade their level of protection if they experience nausea or dizziness. No volatile compounds are expected to be encountered at concentrations dangerous to human health. If any odors are noted, work will cease and personnel protection reevaluated. In the event of medical emergency, contact Hospital, Police or Sheriff's Department. If respirable dust is noted, additional engineering controls will be implemented. If these controls do not eliminate the exposure, personnel protection will be reevaluated.

**MEDICAL EMERGENCY:**

Hospital: St. John's Lutheran Hospital (406) 293-7761  
 350 Louisiana Avenue, Libby, Montana  
 Name of Contact at Hospital: N/A  
 Name of 24-Hour Ambulance: Call 911  
 Route to Hospital: See route, Page 11 of 12  
 Alternate hospital: Kalispell Regional Medial Center (406) 752-5111  
 310 Sunnyview Lane, Kalispell, Montana

**HEALTH AND SAFETY PLAN APPROVALS:**

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

SHSC Signature: \_\_\_\_\_ Date: \_\_\_\_\_

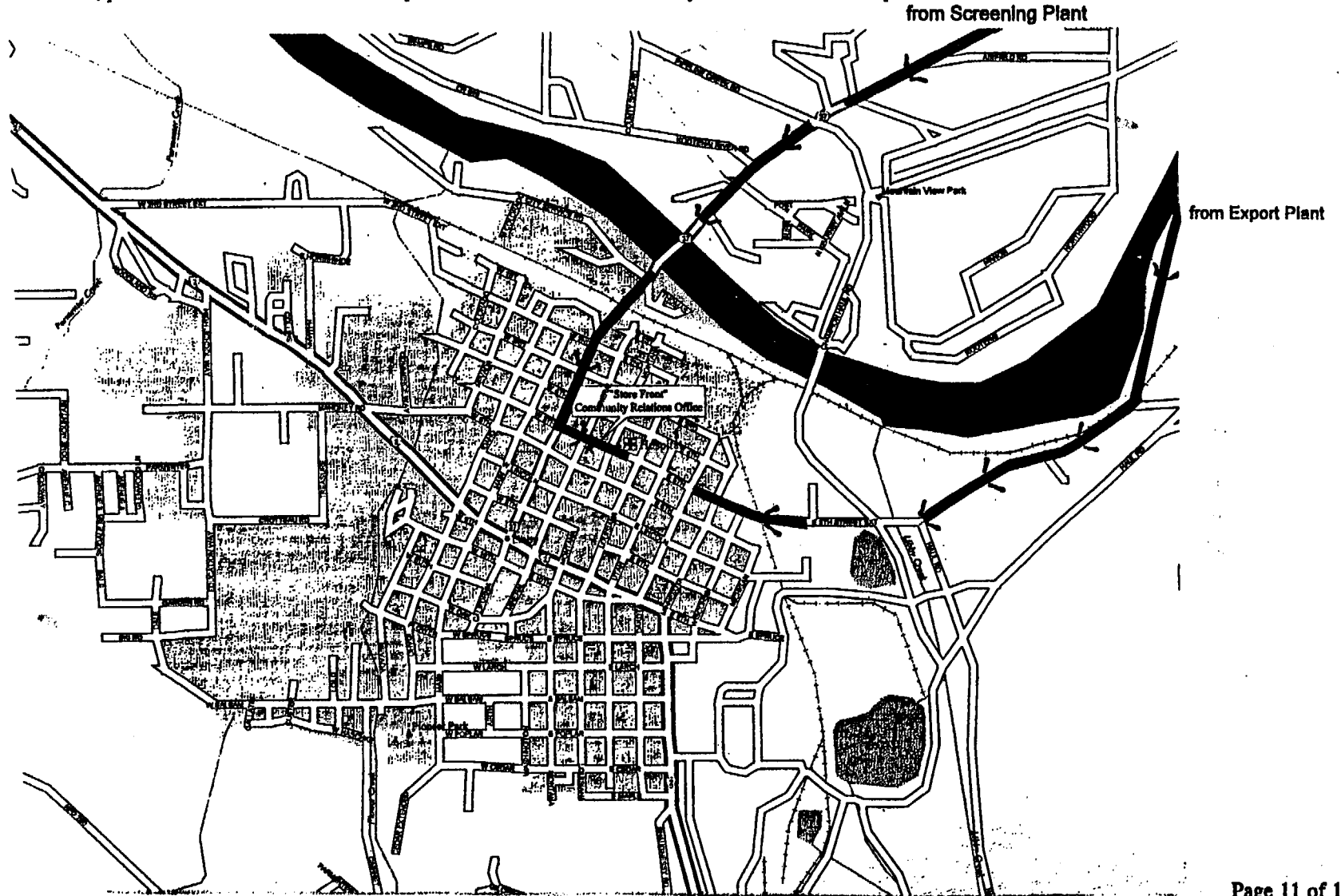
HSM Signature:                     *Chad J. Myers*                     Date:                     8/24/2000

CDM Federal Health and Safety Program

**Route to Hospital:**

From the Screening Plant, drive 7 miles south on Rainy Creek Road. Turn right on Highway 37 and drive southwest approximately 8 miles, crossing the Kootenai River, into the town of Libby. Turn left on 5<sup>th</sup> Street; proceed for 3 blocks to St. John's Hospital.

From the Export Plant, proceed southwest on the access road, which becomes the 5<sup>th</sup> Street Extension. Continue on 5<sup>th</sup> Street until you reach St. John's Hospital.



**HEALTH AND SAFETY PLAN FORM**

**CDM FEDERAL PROGRAMS CORPORATION**

**CDM Federal Health and Safety Program**

The following personnel have read and fully understand the contents of this Health and Safety Plan and further agree to all requirements contained herein.

Name	Affiliation	Date	Signature
<i>John M. Bergesi</i> John M. Bergesi	US DOT / Volpe Center	8/24/00	<i>John M. Bergesi</i>
<i>Julia Bergesi</i> Julia Bergesi	US DOT / Volpe Center		<i>Julia Bergesi</i>
NANCY GARRITY	US DOT / VOLPE CENTER		<i>Nancy Garrity</i>
MARK RANEY	US DOT / Volpe Center		<i>Mark Raney</i>
CHRIS ZEUITAS	US DOT / Volpe Center		<i>Chris Zeuitas</i>
PAUL KUDARAUSKAS	US DOT / Volpe Center		<i>Paul Kudarauskas</i>
Ophelia Goatson	US DOT / Volpe Center	12/15/00	<i>Ophelia Goatson</i>