

Comprehensive Accident Prevention Plan

Libby Asbestos Project Libby, Montana

April 2011

Prepared for:



ENVIRONMENTAL PROTECTION AGENCY
Region 8

Prepared by:



U.S. Army Corps of Engineers
Omaha District
Rapid Response Program
Offutt AFB, Nebraska 68113

and

CDM

CDM FEDERAL PROGRAMS CORPORATION
555 17th Street
Suite 1100
Denver, Colorado 80212

Contents

Acronyms	iii
Section 1 – Plan Approvals	
1.1 Plan Preparation	1-1
Section 2 – Background Information	
2.1 CAPP Purpose.....	2-1
2.1.1 Required Contractor Submittal of APP	2-2
2.1.1.1 Site Safety and Health Plan	2-2
2.2 Project Information.....	2-2
2.3 Activity Hazard Analysis	2-4
Section 3 – Statement of Health and Safety Policy	
3.1 Safe Work Environment	3-1
Section 4 – Responsibilities	
4.1 Identification and Accountability of Personnel Responsible for Safety ..	4-1
4.1.1 Health and Safety Team.....	4-1
4.1.1.1 EPA Onsite Remedial Project Manager	4-1
4.1.1.2 USACE Onsite Representative.....	4-1
4.1.1.3 RC Project Manager	4-2
4.1.1.4 RC Site Health and Safety Officer.....	4-2
4.1.1.5 RC Site Supervisor	4-3
4.1.1.6 RC Competent Persons	4-4
4.1.1.7 RC Field Personnel	4-4
4.1.1.8 TPIC Onsite Manager	4-5
4.1.1.9 TPIC Health and Safety Manager	4-5
4.1.1.10 TQA Field Team Lead	4-6
4.1.1.11 TQA Personnel	4-6
4.1.1.12 Remedial Action Contract Personnel	4-7
4.1.1.13 Authorized Site Visitors.....	4-7
4.1.2 Line of Authority	4-7
4.1.3 Competent Persons.....	4-8
4.2 Health and Safety Expectations and Compliance.....	4-8
4.3 Employee Health and Safety Rules Non-Compliance	4-9
4.4 Pre-Task Safety and Health Analysis	4-9
Section 5 – Subcontractors, Suppliers and Visitors	5-1
5.1 Identification of Major Subcontractors and Suppliers	5-1
5.2 Means of Controlling and Coordinating Subcontractors and Suppliers ..	5-1
5.3 Safety Responsibilities of Subcontractors and Suppliers	5-1
5.4 Visitor Protocol	5-1
5.4.1 Removal Locations and Landfill.....	5-1
5.4.2 Mine Site.....	5-2

Section 6 - Training

6.1	Initial Training	6-1
6.1.1	Site Orientation	6-2
6.2	Mandatory Training and Certifications Applicable to this Project	6-2
6.2.1	Supervisory Training.....	6-3
6.3	Refresher Training and Retraining	6-3
6.4	Toolbox Safety Meetings	6-3
6.5	Subcontractor Training	6-3
6.6	Recordkeeping	6-4

Section 7 - Health and Safety Inspections

7.1	Inspections.....	7-1
7.2	Correcting Unsafe Conditions	7-1
7.3	Corrective Action Notification Procedures.....	7-2
7.3.1	Repeated Violations.....	7-2

Section 8 - Accident Reporting

8.1	Reporting	8-1
8.2	Follow-Up.....	8-2

Section 9 - Plans Required by EM-385-1-1

9.1	List of Plans	9-1
-----	---------------------	-----

Section 10 - Risk Management/Activity Hazard Analysis

10.1	Activity Hazard Analysis	10-1
10.1.1	Project Activities Requiring an AHA.....	10-1
10.1.2	New or Modified AHAs	10-2

Section 11 - References..... 11-1

Appendices

<i>Appendix A</i>	Site Safety and Health Plan
<i>Appendix B</i>	Project Forms and Directions to Hospital

Acronyms

ACM	asbestos-containing material
AHA	activity hazard analysis
ANSI	American National Standard Institute
APP	Accident Prevention Plan
APR	air purifying respirator
BZ	breathing zone
CAPP	Comprehensive Accident Prevention Plan
CDM	CDM Federal Programs Corporation
CHP	Certified Health Physicist
CIH	Certified Industrial Hygienist
CSP	Certified Safety Professional
CO	contracting officer
COR	contracting officer representative
CFR	Code of Federal Regulations
DFOW	definable feature of work
EPA	U.S. Environmental Protection Association
EM-385-1-1	United States Army Corps of Engineers Safety and Health Requirements Manual
ERS	environmental resource specialist
GDA	Government designated authority
HAZWOPER	Hazardous Waste Operations and Emergency Response
HEPA	high efficiency particulate air
H&S	health and safety
HSM	health and safety manager
IDLH	immediately dangerous to life or health
IDW	investigation-derived waste
LA	Libby amphibole
MSHA	Mine Safety & Health Administration
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PAPR	powered-air purifying respirator
PCM	phase contrast microscopy
PPE	personal protective equipment
QAR	quality assurance report
QC	quality control
RAC	Remedial Action Contract
RAWP	Response Action Work Plan
RA SAP	Response Action Sampling and Analysis Plan for the Libby Asbestos Site
RC	removal contractor
RPM	remedial project manager
SCBA	self-contained breathing apparatus
SHSO	site health and safety officer
SHM	safety and health manager
SSHP	Site Safety and Health Plan

Comprehensive Accident Prevention Plan, Libby Asbestos Project
Acronyms

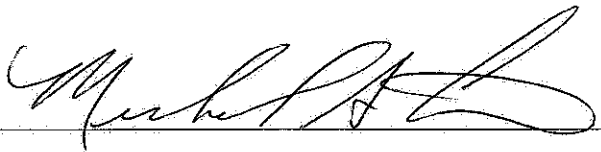
STEL	short-term exposure limit
TEM	transmission electron microscopy
TPIC	third party independent contractor
TQA	third party quality assurance
TSI	thermal system insulation
TWA	time-weighted average
U.S.	United States
USACE	U.S. Army Corps of Engineers
VCI	vermiculite-containing insulation

Section 1

Plan Approvals

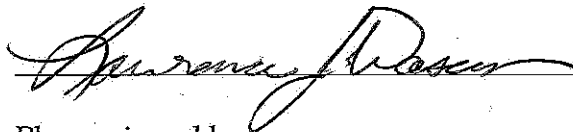
1.1 Plan Preparation

This Comprehensive Accident Prevention Plan (CAPP) was prepared by the U.S. Army Corps of Engineers (USACE) and CDM Federal Programs Corporation (CDM) for the U.S. Environmental Protection Agency's (EPA's) Libby Asbestos Project, Libby, Montana. This CAPP is based on all available site-specific data, and is in compliance with regulations set forth by the USACE Safety and Health Requirements Manual (EM 385-1-1), U.S. Occupational Safety and Health Administration's (OSHA) Title 29 of the Code of Federal Regulations (CFR), Parts 1910 and 1926, and EPA's Hazardous Waste Requirements (40 CFR 260-270). The contents of this CAPP are subject to review and revision as new information becomes available.



Date 5-16-2011

Plan reviewed by:
Mike Cirian, P.E.
EPA Region 8
Remedial Project Manager
(406) 293-6194



Date 5/13/11

Plan reviewed by:
Lawrence J. Woscyna, P.E., PMP, RE
USACE Rapid Response Section
Project Engineer
(402) 661-4269

Section 2

Background Information

2.1 CAPP Purpose

The CAPP is designed as an overarching health and safety (H&S) management program for the Libby Asbestos Project. It is primarily intended to provide requirements for the H&S programs of the Removal Contractor (RC), Third Party Independent Contractor (TPIC), and any additional contractors, hereafter collectively referred to as the “contractor(s),” performing activities for EPA at the Libby Asbestos Project.

The CAPP is also designed to provide a system to identify, evaluate, and correct H&S hazards and to ensure the protection of worker and public safety during all activities performed at the Libby Asbestos Project. To do so, this CAPP will:

- Present written policies and guidelines mandating regulatory compliance and environmental, health, and safety protection for contractors and subcontractors employed at the Libby Asbestos Project.
- Coordinate the overall H&S effort during remediation, removal, and construction.
- Present H&S expectations, roles, and responsibilities required of contractors addressing the entire scope of operations performed at the Libby Asbestos Project.
- Establish minimum site documentation requirements and define the lines of communication between EPA, USACE, and contractor management.
- Establish minimum training requirements for contractor personnel working at the Libby Asbestos Project.
- Educate key contractor employees on the H&S standards and guidelines to ensure a full understanding of the implications and liability of noncompliance.

The requirements established by this CAPP are mandatory and apply to all contractor personnel, including their site subcontractor personnel, involved in implementing Libby Asbestos Project work during active field operations.

2.1.1 Required Contractor Submittal of APP

Each contractor is required to produce a USACE EM-385-1-1-compliant Accident Prevention Plan (APP) prior to the start of site operations which addresses the project activities of the individual contractor and its subcontractors. In accordance with EM-385-1-1, the APPs shall include activity hazard analyses (AHAs) for each of the contractor's definable features of work (DFOW). AHA requirements are discussed in Section 10 of this CAPP.

Each contractor shall be responsible for ensuring that their APPs comply with all required elements of EM-385-1-1 and this CAPP, and that they are reviewed and found acceptable by the appropriate Government designated authority (GDA). Each contractor shall be required to ensure their project subcontractors comply with the requirements of their APP. Contractor onsite personnel are required to sign the APP as an acknowledgment of agreement, acceptance, and understanding of its contents.

Changes and modifications to a contractor's APP are permitted and shall be made in writing and accepted by the GDA.

2.1.1.1 Site Safety and Health Plan

Included in the contractor's APP shall be a Site Safety and Health Plan (SSHP) in accordance with Section 28 of EM-385-1-1. The SSHP is required under EM-385-1-1 for all hazardous waste work, such as Libby Asbestos Project activities. The SSHP shall be included as an appendix to the contractor's APP.

Contractor SSHP requirements are included in Appendix A of this CAPP.

2.2 Project Information

Contractors:

Project contractors include, but are not limited to, the following:

- RC
- TPIC
- Additional service contractors as necessary.

Project Name: Libby Asbestos Project, Libby, Montana

The Libby Asbestos Project encompasses all Libby amphibole (LA) asbestos investigation and removal work associated with the Libby Superfund Site in Libby, Montana. The scope of work includes performance of the following activities at the site:

1. General Property Investigations

- Evaluating properties for the presence of LA asbestos and the extent of contamination, including:

- Performing visual inspections of attics, living spaces, walls, understructures, interior soil locations, and exterior soil locations.
- Collecting soil samples and bulk material (e.g., pipe insulation wrap) samples as necessary to define contamination.
- Documenting property-specific information to assist in the investigation.
- Performing a land survey of the property.

2. Residential and Commercial Removal Operations

- Removing LA asbestos-contaminated material and potential LA asbestos-contaminated material from property structures using equipment such as industrial high-efficiency particulate air (HEPA) vacuums.
- Excavating LA asbestos-contaminated soil and potential LA asbestos-contaminated soil from properties using heavy equipment and hand tools as necessary.
- Demolishing structures as directed by EPA.
- Hauling removed material to the Lincoln County Asbestos Landfill (Landfill) and the Mine Site, designated offsite waste disposal locations.

3. Landfill Operations

- Offloading waste from project removal sites and transporting to final Landfill disposal locations.
- Operations and maintenance of the Landfill site and facilities.

4. Mine Site Operations

- Offloading impacted soil from project removal sites at the site's Amphitheater location.
- Transporting offloaded soil from the Amphitheater to the Mine Site's final disposal locations.
- Operations and maintenance of the Mine Site and facilities.

5. Oversight of Project Removal Remediation Activities (i.e., Third Party Quality Assurance)

- Performing onsite evaluation of contractor compliance with project requirements, including:
 - Field visits and audits of residential asbestos removal activities, Landfill operations, and Mine Site operations.

- Three-phase property inspections (i.e., preparatory, follow-up, and final) to determine the quality of asbestos removal work.

6. H&S Technical Expertise

- Conducting onsite H&S evaluations of contractor activities at residential removal locations, the Landfill, and the Mine Site.

7. Environmental Resource Specialist (ERS) Quick Responses

- Responding to EPA Information Center Hotline calls by investigating properties with known or suspected LA contamination, including:
 - Performing visual inspections of particular areas of structures or exterior soils to determine the presence of LA asbestos-contaminated material, extent of contamination, and/or the remedial activities needed.
 - Creating designs which detail necessary removal activities and locations.

8. Environmental and Occupational Sampling

- Collecting air clearance and soil clearance samples from locations of LA asbestos removal.
- Collecting stationary ambient air samples at exterior removal locations to determine the effectiveness of engineering controls.
- Collecting occupational (i.e., personal breathing zone) air samples from personnel performing distinct project tasks.
- Collecting ambient air samples from specific project facilities (e.g., EPA Information Center) or site locations (e.g., Ambient Air Program) as determined necessary.
- Collecting samples from other media (e.g., water, dust).

9. Property Coordination Team

- Assisting residents and owners through the investigation, removal, and relocation processes.

2.3 Activity Hazard Analysis

Each contractor shall be responsible for analyzing their expected work activities and providing an AHA for each DFOV in accordance with EM-385-1-1. AHAs are to be included in each contractor's APP. Requirements for contractor AHAs are provided in Section 10.1.

Section 3

Statement of Health and Safety Policy

The CAPP shall be made available to all contractors before the start of work. The contractors shall ensure that all of their site employees and subcontractors are familiar with and abide by the contents of their CAPP-compliant APP.

3.1 Safe Work Environment

The project is committed to providing a safe and healthful workplace for all employees involved in site activities. Each contractor shall be responsible for maintaining this safe work environment by consistently implementing the CAPP, their APP, and adhering to EM 385-1-1 and OSHA standards and guidelines. USACE shall be notified when site tasks are altered and when unanticipated hazards arise to discuss safety issues and amend H&S procedures accordingly.

The first step in controlling hazards is the recognition of the hazard. The contractor's project manager, site health and safety officer (SHSO), site supervisors, and designated competent persons shall perform and document regular inspections (audits) to identify and direct the correction of unsafe conditions and work practices. The contractor's project manager is responsible for maintaining a work schedule that shall ensure the following:

- No field worker performing Hazardous Waste Operations and Emergency Response (HAZWOPER) activities shall work greater than a 6-day work week at 10 hours per day or 5-day work week at 12 hours per day without 24 hours off.
- No site employee shall be permitted to work over a 12-hour work day or the above mentioned work schedule without prior permission from the RPM and the USACE onsite representative.

Contractors shall provide written procedures in their APP detailing how inclement weather (e.g., lightning) will be handled.

Section 4

Responsibilities

4.1 Identification and Accountability of Personnel Responsible for Safety

Although worker protection and safety on the Libby Asbestos Project is a collaborative effort among the overall project team, each employer is ultimately responsible for implementation of this CAPP and their own H&S program for their employees.

4.1.1 Health and Safety Team

4.1.1.1 EPA Onsite Remedial Project Manager

The H&S responsibilities of the EPA RPM include, but are not limited to:

- Managing overall project compliance with applicable EPA, EM 385-1-1, OSHA and project requirements to protect worker and public safety.
- Ensuring that Lincoln County Class IV Asbestos Landfill and mine operations are conducted in accordance with applicable EPA, EM 385-1-1, OSHA, and state requirements.
- Being available to listen and respond to project safety related concerns from both the workforce and the community at large.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.2 USACE Onsite Representative

The H&S responsibilities of the USACE onsite representative include, but are not limited to:

- Ensuring that contractor APPs are reviewed by the USACE following their submittal.
- Communicating with project personnel in order that activities are performed according to contract requirements and satisfy OSHA's reasonable care standard with respect to protection of public and worker safety.
- Enforcing overall contractor compliance with applicable federal, EM 385-1-1, OSHA, and project requirements.
- Reviewing RC, TPIC, and third party quality assurance (TQA) inspection results and recommended corrective actions as these items relate to safety and compliance.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

- Communicating H&S issues to the EPA RPM.

4.1.1.3 RC Project Manager

The H&S responsibilities of the RC project manager include, but are not limited to:

- Producing an APP covering the scope of all activities performed by the RC under the USACE contract, and submitting the APP to USACE for review before the start of site work activities.
- Managing compliance among RC site personnel to read and understand the contents of the CAPP and applicable APP.
- Managing RC site compliance with requirements set forth by EM 385-1-1, OSHA Title 29 of the CFR, Parts 1910 and 1926, and EPA's Hazardous Waste requirements (40 CFR 260-270).
- Documenting that RC site personnel receive appropriate training which addresses their anticipated work activities.
- Coordinating with the USACE onsite representative in order that all efforts are made to identify potential hazards and that appropriate controls are implemented for worker and public safety.
- Designating a qualified RC SHSO to oversee implementation of the APP.
- Selecting and identifying competent persons for project activities (see Section 4.1.3 for details).
- Reporting any observed unsafe act and/or condition at, or affecting, the work site to USACE onsite representative and RPM.
- Coordinating and reviewing all RC site accident investigations and reporting.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.4 RC Site Health and Safety Officer

The RC SHSO has primary responsibility for the H&S of RC employees. The H&S responsibilities of the RC SHSO include, but are not limited to:

- Performing daily inspections of site operations for compliance with EM 385-1-1, federal, state, and OSHA regulations, and all requirements of the CAPP, including, but not limited to: AHAs, air monitoring, use of personal protective equipment (PPE), decontamination, site control, procedures used to minimize hazards, safe use of engineering controls, the emergency response plan, the spill containment program, and documentation of the H&S inspection results and reporting to the RPM and the USACE onsite representative.

- Consulting with the EPA RPM, USACE onsite representative, RC project manager, and TPIC manager to determine appropriate corrective actions for identified H&S deficiencies and performing follow-up inspections to evaluate whether corrective actions have been properly implemented.
- Being onsite at all times when project related activities are performed.
- Evaluating air monitoring results and associated work practices.
- Inspecting demolition, bulk removal, interior cleaning, detail cleaning, exterior removal, and restoration activities in order that they are performed in accordance with project H&S requirements.
- Evaluating RC site training needs in order that site personnel receive appropriate training which addresses their anticipated work activities.
- Performing accident investigation and reporting for all RC accidents, in conjunction with the RC project manager and USACE onsite representative.
- Reporting any observed unsafe act and/or condition at, or affecting, the work site to USACE onsite representative.
- Completing DFOW- or task-specific AHAs.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

The role of RC SHSO for each work location shall be designated by the RC and submitted to USACE. Due to the number of ongoing work locations on the Libby Asbestos Project at any given time, more than one employee may be designated by the RC as SHSO in order to support operations. All SHSOs shall meet the qualifications as described in EM-385-1-1.

4.1.1.5 RC Site Supervisor

The H&S responsibilities of the RC site supervisor include, but are not limited to:

- Documenting that site personnel have read, understood, and implemented the APP.
- Performing frequent and regular inspections of all work areas to evaluate whether all applicable EM 385-1-1, OSHA and project H&S requirements have been satisfied.
- Correcting any site work practices and/or conditions that may result in injury and/or exposure to hazards.
- Coordinating with the USACE onsite representative and RC SHSO on accident investigations.

- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.6 RC Competent Persons

The H&S responsibilities of the RC competent persons (refer to Section 4.1.3) include, but are not limited to:

- Performing frequent and regular inspections of all designated work areas and activities to evaluate whether all EM 385-1-1, OSHA and project H&S requirements have been satisfied.
- Correcting any work practices and/or conditions that may result in injury and/or exposure to hazards.
- Coordinating with the RC project manager and RC SHSO on accident investigations.
- Conducting DFOW- or task-specific AHAs for each removal property.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.7 RC Field Personnel

The H&S responsibilities of RC field personnel include, but are not limited to:

- Following the guidelines, rules, and procedures set forth in this document.
- Acting in a responsible and cautious manner to prevent accident, injury and/or exposure to themselves and their coworkers.
- Reporting unsafe conditions and actions to the RC's competent person, site supervisor, or SHSO.
- Reporting any and all accidents, injuries, exposures, and near misses to the RC's competent person, site supervisor, or SHSO.
- Attending and participating in toolbox safety meetings conducted during the project.
- Following the instructions and directions of the RC's competent person, site supervisor, and SHSO.
- Using the PPE provided and specified for each task by the RC.
- Following all field safety procedures for safe work practices, the buddy system, communication, site control, decontamination, evacuations, and related emergency procedures.

- Performing only those tasks they are instructed to perform and they are trained, qualified, and capable of performing.
- Reporting to the RC's competent person, site supervisor or SHSO any condition they believe could affect jobsite or public safety.
- Adhering to the APP when performing site tasks.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.8 TPIC Onsite Manager

The H&S responsibilities of the TPIC onsite manager include, but are not limited to:

- Monitoring overall safety performance of TPIC field personnel in coordination with the EPA RPM, USACE onsite representative and the RC project manager.
- Correcting any work practices and/or conditions that may result in injury and/or exposure to hazards.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.9 TPIC Health and Safety Manager

The H&S responsibilities of the TPIC health and safety manager (HSM) include, but are not limited to:

- Performing regular and frequent inspections of site operations for compliance with EM 385-1-1, federal, state, and OSHA regulations, and all requirements of the CAPP, including, but not limited to: AHAs, air monitoring, use of PPE, decontamination, site control, procedures used to minimize hazards, safe use of engineering controls, the emergency response plan, the spill containment program, and documentation of the H&S inspection results and reporting to the RPM and the USACE onsite representative.
- Consulting with the EPA RPM, USACE onsite representative, RC project manager, and TPIC manager to determine appropriate corrective actions for identified H&S deficiencies and performing follow-up inspections to ensure that corrective actions have been properly implemented by the contractors.
- Ensuring the collection of personal and ambient air monitoring data by TPIC in support of project operations, and that air monitoring data is appropriately communicated to the EPA RPM, USACE, RC, TPIC TQA, and project personnel.
- Providing input to the project safety team regarding air monitoring results and any necessary changes to engineering controls, work practices, and PPE.
- Providing periodic evaluations to ensure that workers are being trained in compliance with the requirements of the CAPP.

- Providing onsite consultation, as needed.
- Coordinating any modifications to the CAPP by monitoring overall safety performance of field personnel in coordination with the EPA RPM, USACE onsite representative, and the RC project manager.
- Reviewing site accident investigations and reporting.
- Providing continued support for any upgrading/downgrading of the level of personal protection.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.10 TQA Field Team Lead

The H&S responsibilities of the TQA Field team lead include, but are not limited to:

- Monitoring overall safety performance of TPIC field personnel in coordination with the TPIC HSM and TPIC project manager.
- Correcting any work practices and/or conditions that may result in injury and/or exposure to hazards.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.11 TQA Personnel

The H&S responsibilities of the TQA personnel include, but are not limited to:

- Following the guidelines, rules, and procedures set forth in this CAPP.
- Serving as a member of the quality control staff on matters relating to H&S.
- Documenting on the appropriate quality assurance report (QAR) the H&S findings observed during quality control inspections, and reporting such findings to the USACE onsite representative, RC onsite project manager, RC SHSO, TQA field team lead, and TPIC HSM.
- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

4.1.1.12 Remedial Action Contract Personnel

The H&S responsibilities of EPA Remedial Action Contract (RAC) personnel include, but are not limited to:

- Following the requirements set forth in this CAPP or their contractor's APP, if applicable.
- Conducting an AHA for each expected work task.

- Authorizing immediate shut down of site operations in the event of an emergency or serious hazard.

EPA and/or USACE will determine whether the RAC contractor is required to submit an APP for their expected project operations. If required, the RAC contractor’s APP shall comply with this CAPP.

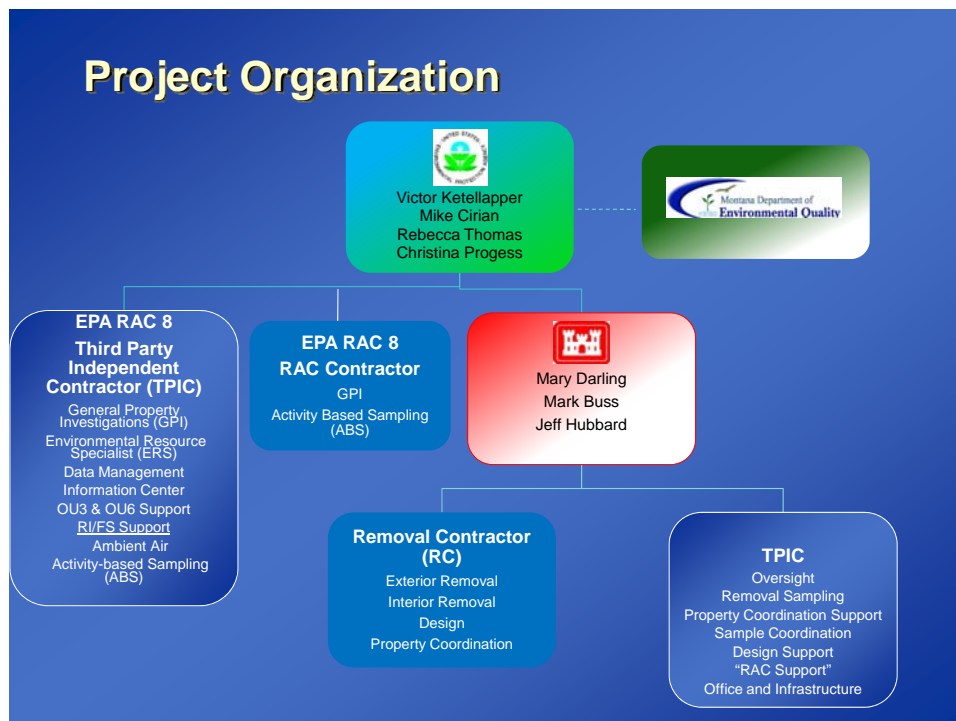
4.1.1.13 Authorized Site Visitors

The H&S responsibilities of authorized site visitors include, but are not limited to:

- Reading and signing the visitor H&S orientation form, attached in Appendix B.
- Receiving specific site hazard and safety instructions from the TPIC HSM or RC SHSO.
- Reviewing and complying with the CAPP or their authorizing contractor’s APP.
- Using PPE in accordance with the CAPP or their authorizing contractor’s APP requirements to enter regulated work areas.
- Reporting any observed unsafe act and/or condition at, or affecting, the work site.

4.1.2 Line of Authority

The following delineates project lines of authority.



4.1.3 Competent Persons

OSHA defines a competent person as, “One who, through training and experience, is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.”

Contractors shall designate a competent person for work activities in accordance with OSHA and USACE EM 385-1-1 requirements. Contractors shall submit to USACE, as part of their APP, a listing of designated competent persons in each task for which they are required. The list must be maintained by the contractor’s project management.

Competent persons are subject to change. Individuals shall be identified in an AHA as part of the contractor’s APP, and their qualifications forwarded to USACE for review as soon as identified and prior to the start of field activities.

Work shall not be performed unless a designated competent person is present at the worksite.

The contractor’s competent person is responsible for performing the pre-and final-work site inspection and conducting the AHA, as well as performing regular and frequent site inspections to evaluate whether activities are performed in compliance with the CAPP and contractor’s APP.

Refer to the following table for a listing of all topic areas that require competent person designation according to OSHA.

**Table 4-1
 OSHA Standards 29 CFR References to a Competent Person**

Category	OSHA Standards 29 CFR References to a Competent Person
General Inspections	1926.20(b)(2)
Material Handling	1926.251(a)
Welding	1926.354(a)
Scaffolding	1926.451(f)(7), 1926.454(b)
Fall Protection	1926.502* 1926.503(a)(2)
Crane	1926.550*, 1926.552(c)(15)
Excavation	1926.651*, 1926.652*, Subpart P App A,B
Demolition	1926.850(a), 1926.852(c), 1926.859
Ladders	1926.1053(b), 1926.1060(a)(1)
Asbestos	1926.1101*

* Multiple references within this section

4.2 Health and Safety Expectations and Compliance

All employees working at on the project share the following responsibilities and expectations to implement the CAPP effectively, including:

- Learning and understanding the hazards of their expected tasks.

- Following guidelines and procedures presented in the CAPP or their contractor’s APP, the procedures outlined at tailgate safety meetings and safety training courses, and the instruction of supervisors.
- Reporting unsafe conditions or practices and offering suggestions to maintain a safe work site.
- Inspecting equipment, tools, and work areas daily and maintaining safe working conditions by repairing and reporting deficiencies.
- Reporting all injuries, illnesses, falls, and near misses to their contractor’s SHSO immediately.
- Maintaining proper and positive H&S attitudes during the performance of all tasks associated with project activities
- Advising their contractor’s SHSO of any required medication to be taken during the performance of any site activity

Contractors must include procedures in their APP for holding managers and supervisors responsible for safety performance under their control.

4.3 Employee Health and Safety Rules Non-Compliance

Contractors must include disciplinary procedures for employee non-compliance within their APP. EPA will have contractor personnel removed from site duties for the following violations of site policy:

- Illegal substance abuse
- Theft
- Physical violence

4.4 Pre-Task Safety and Health Analysis

Contractors shall ensure that all DFOWs for which they are responsible have been analyzed for hazards and protective measures prior to their performance. This shall include the conducting of an AHA for each DFOW and the training of necessary contractor personnel regarding its application for field activities.

Section 5

Subcontractors, Suppliers and Visitors

5.1 Identification of Major Subcontractors and Suppliers

Contractors shall identify their major subcontractors (e.g., analytical laboratory, surveyors, construction) and suppliers in their APPs. Subcontractors and suppliers yet to be identified shall be listed as such, with this information forwarded to USACE as it becomes available.

5.2 Means of Controlling and Coordinating Subcontractors and Suppliers

Contractors shall ensure that their subcontractors and suppliers have agreed to follow all safety procedures outlined in their APP.

5.3 Safety Responsibilities of Subcontractors and Suppliers

Subcontractors and suppliers shall adhere to the requirements set forth in their contractor's APP and daily safety meetings.

All personnel who will be performing field operations on the Libby Asbestos Project shall be provided formal training by their controlling contractor regarding the contents of this CAPP and their applicable APP, with signature acknowledgment of such training.

5.4 Visitor Protocol

All visitors to project sites must be controlled and provided training in accordance with Section 01.B.04 of EM-385-1-1. Contractors shall ensure that their visitors are appropriately trained for their expected site activities, including training if there is a potential for exposure to LA asbestos (e.g., home repair worker). Visitors must check-in with their authorizing entity's (e.g., EPA, USACE, RC, or TPIC) designee prior to visiting site operations.

Visitors to project removal, Landfill, and Mine Site locations require specific training and protocol in order to ensure their protection and the protection of site employees. Visitors shall be escorted by EPA, USACE, RC, or TPIC management personnel at all times while at these locations. A visitor log shall be maintained onsite at project removal, Landfill, and Mine Site locations by the RC.

All project visitors, contractor-related or otherwise, must understand and comply with the following additional protocol when visiting these sites.

5.4.1 Removal Locations and Landfill

- Visitors must be authorized by EPA, USACE, or a project contractor.

- Visitors must review and sign acceptance of the CAPP or their authorizing contractor's APP.
- Visitors must be provided a general site H&S orientation by a contractor's SHSO or the TPIC HSM.
- Visitors wishing to enter a site's exclusion zone must have appropriate training, PPE and be escorted by an authorized employee.
- Visitors must sign-in to the site and inform the site supervisor of their presence.
- Visitors must be informed by the site supervisor or a competent person of the following:
 - Site work zones
 - Site hazards
 - Site traffic patterns, including where to park vehicles of visitors
 - Site areas which are excluded or require specific training
 - Preferred locations in which to view site activities
 - Decontamination facility procedures (for those entering exclusion zones)
 - Required PPE in work zones
- Visitors wishing to enter exclusion zones must present proof of the following to the applicable site contractor:
 - Medical clearance to wear a respirator
 - Enrollment in a medical surveillance program
 - Respiratory fit testing
- Visitors must be accompanied by an authorizing party or contractor employee at all times when onsite.

5.4.2 Mine Site

In addition the requirements for removal location and Landfill visitors, those visiting the Mine Site must also comply with the following protocol:

- All visitors and their vehicles must be signed in with the attending guard at the Mine Road entrance.
- Ensure that vehicles proceeding into the site's exclusion zone are equipped with positive pressure units that provide HEPA filtration, and that the units are functioning properly.
- Turn on the positive pressure unit when proceeding past the Mine Road's entry gate, and ensure that all windows are shut and vehicle air ventilation systems are off and closed.
- Stay in your vehicle unless explicitly authorized by EPA to do otherwise.

- Understand emergency exit procedures if you must leave your vehicle and don PPE.
- Strictly adhere to the posted Mine Road traffic limits.
- Pay close attention to hauling vehicle traffic on the Mine Road and always yield to project traffic as necessary.
- Keep your vehicle on the paved road at all times when traveling between the entry gate and the Amphitheater location, unless explicitly authorized by EPA to do otherwise.
- If authorized to travel on unpaved road beyond Amphitheater, stay in vehicle and keep vehicle on road unless explicitly authorized by EPA to do otherwise.
- If returning from unpaved road beyond Amphitheater, stop at Amphitheater decontamination pad for a full exterior decontamination of vehicle from Mine Site operator personnel before proceeding.
- Stay aware of haul truck and contractor traffic at all times when entering, traveling on, and exiting the Mine Road.
- Adhere to the Mine Site's traffic control plan.

Section 6

Training

Contractors are required to implement training programs for their employees that are in compliance with Section 28.D of EM-385-1-1, OSHA's 29 CFR 1910.120 HAZWOPER Standard, 29 CFR 1926.1101, and project-specific requirements.

Documentation of all required supervisor and employee training for subcontractor personnel shall be maintained onsite by the contractor and be available for inspection throughout the duration of work activities.

The following sections detail training requirements for a contractor's site employees.

6.1 Initial Training

All contractors are responsible for training their site employees when initially assigned to the project or new to the hazards and precautions applicable to their work.

The contents of initial training shall include:

- Training required under EM 385-1-1 and OSHA Standards 29 CFR 1910.120 (HAZWOPER Standard)
- Comprehensive training on hazards and precautions specific to the employee's work
- A discussion of employee rights and responsibilities under OSHA regulations
- An explanation of who to contact with questions or concerns
- A review of the contractor's APP
- An asbestos awareness training course (for employees not directly involved with abatement operations, e.g., architectural and engineering service contractor employees)
- An Asbestos Hazard Emergency Response Act (AHERA)-certified asbestos worker training course (for employees directly involved with abatement operations, e.g., RC contractor employees performing residential asbestos removals) as determined necessary by each contractor
- A respiratory protection training course
- Personal protective equipment
- Driving practices

- Fire prevention
- Emergencies and emergency response procedures (a map to the nearest hospital and list of project emergency phone numbers are provided in Appendix B to this CAPP)
- Hazard Communication

Contractors are also responsible for ensuring that an employee remains current on their training when transferred to a new job site/task, and when site processes, hazards, or controls change.

6.1.1 Site Orientation

In addition, a thorough orientation meeting shall be held by a representative of each contractor's project H&S team for their personnel working onsite in Libby, Montana at the Libby Asbestos Project. All onsite employees of a contractor and its subcontractors are required to attend a site orientation and review the contractor's APP prior to performing any work on the Libby Asbestos Project. Required project H&S procedures shall be reviewed during the site orientation meeting.

The site orientation's training content and attendance shall be documented by contractors, and such documentation shall be made available to the USACE onsite representative upon request.

Subsequent orientations shall be held as new project employees or subcontractors arrive onsite.

6.2 Mandatory Training and Certifications Applicable to this Project

Contractor employees performing field operations are required to complete and maintain the following:

- 40-Hour HAZWOPER certification
- 8-Hour HAZWOPER refresher training as necessary
- Asbestos awareness training or AHERA-certified asbestos worker training as determined necessary by each contractor (refer to Section 6.1)
- Supervisor training under 29 CFR 1910.120 and AHERA asbestos contractor/supervisor training as determined necessary by each contractor (refer to Section 6.2.1)
- Applicable licenses and certifications for heavy equipment and vehicles
- Certification of medical surveillance and evaluations in accordance with Section 28.E of EM-385-1-1

6.2.1 Supervisory Training

Those contractor employees performing supervisory duties for asbestos abatement operations shall be required to complete supervisor training as defined under 29 CFR 1910.120, and any training under AHERA as necessary.

6.3 Refresher Training and Retraining

Contractors shall ensure refresher training is provided to their employees when:

- Safety rules and regulations change
- Organizational structures change (e.g., training in whom to contact)
- New equipment or procedures are introduced
- Additional skills, such as first aid, are needed
- Annual refreshers dictate
- Site-specific refreshers dictate

If a contractor or subcontractor employee appears to have lack of understanding or skill which should have been acquired from training, the contractor shall retrain the employee. The employee shall not continue work until retraining and a complete understanding of training is complete. Recognition of workers who appear to lack skill or knowledge that should have been acquired from training must be identified by contractors. Each contractor shall document their employee retraining.

6.4 Toolbox Safety Meetings

Toolbox safety meetings discuss site-specific work tasks, the hazards involved, and controls for those hazards. Toolbox safety meeting content and attending personnel shall be documented by the contractor.

The contractor's project manager, HSM, or SHSO shall hold toolbox safety meetings on a daily basis for their site employees. The degree of hazards, injuries, accidents, and the number of employees/subcontractors are factors that may warrant more frequent toolbox safety meetings.

Emergency response procedures training shall be provided to all contractor site employees and shall be reviewed frequently during daily toolbox safety meetings.

6.5 Subcontractor Training

Each contractor is solely responsible for ensuring appropriate training for their subcontractors' employees working onsite. All subcontractor employees must perform project-related work in accordance with their contractor's APP, including the incorporation of all required PPE and equipment safety features. Contractors are

required to supervise their subcontractor's work practices and enforce project requirements.

Depending on site operations, joint toolbox safety meetings may be appropriate. Joint toolbox safety meetings shall be held by the contractor with its Libby Asbestos Project onsite subcontractors in attendance.

6.6 Recordkeeping

Each contractor is required to maintain records of all project-related H&S training for their employees and site subcontractors, and make such documentation available to USACE's onsite representative upon request.

Section 7

Health and Safety Inspections

7.1 Inspections

Each contractor is required to perform a minimum of daily H&S inspections during periods of work activity. Safety inspections shall also be conducted by contractors when new substances, processes, procedures, or equipment are introduced that pose a new occupational H&S hazard and when new hazards are observed. Each contractor shall document these H&S inspections.

In their required APP, contractors shall provide the following information:

- Personnel responsible for performing the inspections
- Proof of inspector's training and qualifications
- Required frequency of inspections
- Inspection documentation procedures
- The deficiency tracking system
- Follow-up procedures for inspection concerns and identified hazards

Contractors shall also identify any external inspections or certifications that may be required during their work.

Each contractor shall perform regular and frequent inspections of its work areas to ensure compliance with the requirements of their APP. These inspections shall be documented in a format found acceptable to EPA and USACE.

7.2 Correcting Unsafe Conditions

Unsafe conditions noted during site inspections shall be assigned by the contractor to a responsible person(s) for required follow-up action. Each contractor shall review their safety inspections to ensure follow-up actions adequately control the hazard(s) and are completed in a timely manner.

For situations presenting a hazard which is imminently dangerous to life, limb, or property, contractors shall immediately cease work activities and workers shall exit the area until the hazards are controlled. Any employee recognizing a dangerous circumstance or activity at a worksite has the authority to stop work until hazards are abated and the situation is properly evaluated by the contractor.

Hazards shall be controlled by contractors in a timely manner, based on the severity of the hazard as determined by project management. Hazards which are imminently dangerous are to be reported to the USACE onsite representative by the controlling contractor's management immediately, including the details of their correction. The imminent danger condition shall be corrected by the contractor before work is allowed to continue.

7.3 Corrective Action Notification Procedures

In the event of potential violation of an H&S standard, the USACE onsite representative shall advise the contractor of the violation and request that the violation be corrected. If there is a conflict between the CAPP, contractor's APP, and applicable governmental regulations, the most stringent rules shall apply.

EPA and the contractor shall be informed of the H&S violation by means of a verbal or written communication. Communications shall be delivered by the most expeditious method to EPA and the contractor's project manager or SHSO.

The contractor shall take prompt corrective action or propose an alternate solution within an agreed upon timeframe. If corrective action is not taken within the specified timeframe, work shall stop in the respective location, and/or the affected equipment shall not be used until the situation is corrected.

7.3.1 Repeated Violations

In addition to the above notification procedures, the USACE onsite representative shall notify the contractor's corporate office if a particular violation is repeated or the contractor's SHSO, site supervisor, or competent person is not cooperative. Such notification to the contractor's corporate office may be either by telephone or in writing; however, telephone notifications shall be followed up with written notification.

Repeated nonconformance with the CAPP or APP, or repeated failure to comply with correction directives may result in dismissal of contractor management from the project site or termination of the contract.

Contractor personnel who commit the acts as described in Section 4.3 will be subject to immediate dismissal from site duties by EPA.

Section 8

Accident Reporting

8.1 Reporting

Contractors shall provide accident reporting for the project activities of their employees and their subcontractor's employees in accordance with Section 01.D of EM-385-1-1. Contractors shall detail their accident reporting procedures in their APP.

The EM-385-1-1 accident reporting requirements are summarized as follows:

- Identify the person(s) responsible for providing the following:
 - Exposure data (man-hours worked)
 - Accident investigations, reports, and logs
- All accidents shall be reported as soon as possible, but not more than 24 hours afterwards, to the contracting officer/contracting officer representative (CO/COR).
- The contractor shall thoroughly investigate the accident and submit findings of the investigation along with appropriate corrective actions to the CO/COR in the prescribed format as soon as possible but no later than 5 working days following the accident. Corrective actions shall be implemented as soon as possible.
- The following require immediate accident notification to the CO/COR:
 - A fatal injury
 - A permanent total disability
 - A permanent partial disability
 - Hospitalization of three or more people resulting from a single occurrence
 - Property damage accident of \$200,000 or more

In addition to the above EM-385-1-1 requirements, all injuries, near misses, occupational illnesses, accidents, unsafe conditions, property damage accidents, and damaging fires are to be investigated by the contractor's SHSO. The contractor's SHSO shall complete an injury/illness report when necessary. The contractor's SHSO shall submit the completed report to the USACE CO/COR (i.e., onsite representative) along with any supportive documentation such as photographs, witness statements, etc., within 1 working day after the injury/illness. Reports shall be dated and signed by the contractor's SHSO and project manager.

Necessary medical services and employee care are to be secured before the initiation of reporting and investigation.

In those cases requiring immediate notification, the USACE CO/COR is to be notified regardless of the day or hour.

8.2 Follow-Up

The USACE onsite representative shall follow up with the contractor's project manager and SHSO to ensure that corrective action, if identified on the injury/illness report form, has been implemented.

If the injury/illness resulted from the uncontrolled release of a hazardous material, the USACE onsite representative is to be notified immediately so that discussions with the occupational physician can occur to determine if any additional biological monitoring should be prescribed.

Section 9

Plans Required by the EM-385-1-1

Each contractor shall address all occupational risks and compliance plans associated with their project activities in their APP. Contractors shall review each required plan from Appendix A, Section 9 of EM-385-1-1, and if applicable, detail measures to meet its requirements and address occupational risks to their site personnel within the APP. Plans that are not applicable to site activities shall be listed as such by the contractor.

9.1 List of Plans

In accordance with EM-385-1-1, plans required include, but are not limited to, the following list. Also included with each is the applicable EM-385-1-1 section detailing its requirements. Contractors are responsible for identifying which plans are applicable to their site work.

- Layout Plans (04.A.01)
- Emergency Response Plans:
 - Procedures and Tests (01.E.01)
 - Spill Plans (01.E.01, 06.A.02)
 - Firefighting Plan (01.E.01, Section 19)
 - Posting of Emergency Telephone Numbers (01.E.05)
 - Man Overboard/ Abandon Ship (Section 19.A.04)
 - Medical Support. Outline onsite medical support and offsite medical arrangements including rescue and medical duties for those employees who are to perform them, and the name(s) of onsite contractor personnel trained in first aid and CPR. A minimum of two employees shall be certified in CPR and first aid per shift/site (Section 03.A.02; 03.D).
- Plan for Prevention of Alcohol and Drug Abuse (01.C.02)
- Site Sanitation Plan (Section 02)
- Access and Haul Road Plan (4.B)
- Respiratory Protection Plan (05.G)
- Health Hazard Control Program (06.A)
- Hazard Communication Program (06.B.01)
- Process Safety Management Plan (06.B.04)
- Lead Abatement Plan (06.B.05 & specifications)
- Asbestos Abatement Plan (06.B.05 & specifications)

- Radiation Safety Program (06.E.03.a)
- Abrasive Blasting (06.H.01)
- Heat/Cold Stress Monitoring Plan (06.I.02)
- Crystalline Silica Monitoring Plan (Assessment) (06.M)
- Night Operations Lighting Plan (07.A.08)
- Fire Prevention Plan (09.A)
- Wild Land Fire Management Plan (09.K)
- Hazardous Energy Control Plan (12.A.01)
- Critical Lift Plan (16.H)
- Contingency Plan for Severe Weather (19.A.03)
- Float Plan (19.F.04)
- Site-Specific Fall Protection and Prevention Plan (21.C)
- Demolition Plan (to include engineering survey) (23.A.01)
- Excavation/Trenching Plan (25.A.01) (e.g., excavation and trenching greater than 5 feet in depth require an Excavation/Trenching Plan)
- Emergency Rescue (Tunneling) (26.A)
- Underground Construction Fire Prevention and Protection Plan (26.D.01)
- Compressed Air Plan (26.I.01)
- Formwork and Shoring Erection and Removal Plans (27.C)
- PreCast Concrete Plan (27.D)
- Lift Slab Plans (27.E)
- Steel Erection Plan (27.F.01)
- Site Safety and Health Plan for Hazardous, Toxic, and Radioactive Waste (HTRW) Work (28.B)
- Blasting Safety Plan (29.A.01)
- Diving Plan (30.A.13)
- Confined Space Program (34.A)

Section 10

Risk Management/Activity Hazard Analysis

10.1 Activity Hazard Analysis

Contractors shall develop an AHA for every DFOW they are to perform. Contractors are also responsible for ensuring that AHAs are developed for each DFOW their subcontractors are to perform. Contractors should strive to have the responsible subcontractor develop AHAs for activities within their expertise and scope of work. Contractors shall include the AHAs in their APPs as indicated by EM-385-1-1.

The AHA shall identify hazards associated with DFOWs (e.g., air clearance sampling) and detail measures to mitigate or control the hazard. AHAs shall also identify competent persons associated with the activity, equipment to be used, and any specialized training requirements. AHAs shall be completed by the contractor prior to performing the associated work activities.

An EM-385-1-1-compliant AHA form is attached for reference in Appendix B.

10.1.1 Project Activities Requiring an AHA

The following is a list of project phases for which the responsible contractor must develop AHAs. Contractors shall be aware that each work phase below may entail multiple DFOWs and therefore require multiple AHAs. For example, clearance sampling may be divided into both air clearance sampling and soil clearance sampling, each a distinct DFOW.

- General Property Investigations
- Interior Removal Activities
- Interior Restoration Activities
- Exterior Removal Activities
- Trenching and Excavation
- Exterior Restoration Activities
- Structure Demolitions
- Landfill Operations
- Mine Site Operations
- Oversight of Removal Operations
- Clearance Sampling
- ERS Activities
- Environmental and Occupational Sampling
- Property Coordination Team Site Visits
- Landscaping
- Property Surveying

10.1.2 New or Modified AHAs

AHAs shall be added to the contractor's APP as new activities arise. Existing AHAs shall be modified by the contractor as the information contained within, such as processes, hazards, personnel, and equipment, changes. Both new and modified AHAs, and their associated changes in APP verbiage, constitute an Addendum to the contractor's APP and must be submitted to the USACE GDA for review.

Section 11

References

CDM Federal Programs Corporation (CDM) 2008. Lincoln County Class IV Landfill Operations Plan, Revision 2. February.

CDM 2011a. Libby Mine OU3 Soil Disposal Plan. In EPA review.

CDM 2011b. Response Action Sampling and Analysis Plan for the Libby Asbestos Site, Libby, Montana, Revision 2. In EPA review.

Occupational Safety and Health Administration (OSHA). 29 CFR 1910 - Occupational Safety and Health Standards.

OSHA. 29 CFR 1926 - Safety and Health Regulations for Construction.

PRI 2010. Response Action Work Plan, Libby Asbestos Site, Libby, Montana. May.

United States Army Corps of Engineers (USACE). 2008. Safety and Health Requirements Manual, EM 385-1-1.

Appendix A

Site Safety and Health Plan

Section 1

Plan Description and Requirements

1.1 Contractor's SSHP Requirements

The contractor's SSHP shall meet the minimum applicable requirements of Section 28 of USACE's EM 385-1-1 and any applicable OSHA standards. A contractor's SSHP shall be attached as an appendix to their site APP.

Each contractor shall be required to ensure their project subcontractors comply with the requirements of their APP.

Changes and modifications to a contractor's SSHP are permitted and shall be made in writing and accepted by the GDA.

The contractor's SSHP shall address all occupational safety and health hazards associated with the site operations. The SSHP shall be designed to cover the following topics, and all of those contained in Section 28 of EM-385-1-1, in project-specific detail. Sections referenced below are found within EM-385-1-1.

- Site description and contamination characterization – a description of the contamination with the exposure potential to adversely affect safety and occupational health and likely to be encountered during onsite activities
- Hazard/risk analysis. AHAs shall be developed per Section 01.A.13 for each DFOW to be performed
- Staff organization, qualifications and responsibilities per Section 28.C
- Training, general and project-specific per Section 28.D
- PPE. Description of the PPE used to protect workers from site-related hazards during all work phases and activities
- Medical Surveillance per Section 28.E
- Exposure monitoring/ air sampling program per Section 6 and the frequencies listed in the Response Action Work Plan (RAWP) (PRI 2010). Exposure monitoring and air sampling shall be performed to evaluate the effectiveness of prescribed PPE and to evaluate worker exposure to site contaminants and hazardous substances during project operations
- Heat and cold stress procedures which comply with Section 06.I
- Standard operating safety procedures, engineering controls, and work practices, including the following:
 - Site rules (e.g., buddy system)

- Work permit requirements (e.g., hot work, confined space)
- Material handling procedures (e.g., soil, liquid, spill contingency)
- Drum/container/tank handling (e.g., opening, sampling, cleaning)
- AHA of any treatment technologies employed at the site
- Site control measures. Work zones shall be established to eliminate the spread of contamination, including clearly defined exclusion zones, support zones, and contamination reduction zones
- Personal hygiene and decontamination established to removed contaminated PPE and wash when exiting the exclusion zone
- Equipment decontamination stations established for equipment to be decontaminated when exiting the exclusion zone
- Emergency equipment and first aid which complies with Section 3
- Emergency response and contingency procedures (i.e., Emergency Response Plan) developed to address the following:
 - Pre-emergency planning. An agreement shall be established between the contractor, local emergency responders, and the emergency medical facility that specifies the responsibilities of each during an onsite emergency
 - Personnel and lines of authority for emergency situations
 - Criteria and procedures for emergency recognition and site evacuation (e.g., emergency alarm systems and evacuation routes)
 - Decontamination and medical treatment of injured personnel
 - A route map to emergency medical facilities and phone numbers for emergency responders
 - Criteria for alerting local community responders

1.2 CAPP SSHP Purpose

The following sections of this CAPP's SSHP detail the requirements expected in a contractor's SSHP, and also provide any relevant information that is project-directed and mandatory to those contractors conducting project operations. With regard to USACE's criteria for a contractor's SSHP, the information provided herein is not intended to be all-inclusive of EM-385-1-1 requirements, but rather highlight key components and guide contractors through project expectations.

Section 2

Responsibilities

Contractors shall identify the responsibilities for the following site employees in accordance with Section 28.C of EM-385-1-1.

2.1 Safety and Health Manager

The safety and health manager (SHM) shall be required for site operations. The SHM shall be a Certified Industrial Hygienist (CIH), Certified Safety Professional (CSP), or Certified Health Physicist (CHP), and is responsible for the following:

The SHM shall have 3 years of experience managing safety and occupational health at hazardous waste site cleanup operations.

The SHM shall enlist the support of safety and occupational health professionals when working on sites with multiple hazards (e.g., chemical, safety).

The SHM shall be responsible for the following:

- Developing, maintaining, and overseeing implementation of the SSHP
- Visiting the project as needed to audit the effectiveness of the SSHP
- Remaining available for project emergencies
- Developing modifications to the SSHP as needed
- Evaluating occupational exposure monitoring/air sampling data and adjusting SSHP requirements as necessary
- Serving as a quality control (QC) staff member
- Approving the SSHP

2.2 Site Safety and Health Officer

The SSHO is required for all site operations, and is responsible for the following:

- The SSHO shall have a minimum of 1 year experience implementing safety and occupational health procedures at cleanup operations.
- The SSHO shall have training and experience to conduct exposure monitoring/air sampling and select or adjust the use of PPE.
- The SSHO shall have the authority and is responsible for the following actions:
 - Being present anytime site operations are performed to implement the SSHP

Site Safety and Health Plan

- Inspecting site activities to identify safety and occupational health deficiencies and correct them
- Coordinating changes/modifications to the SSHP with the SHM, Site Superintendent, and Contracting Officer
- Conducting project-specific training

Section 3

Training

Contractor training programs shall comply with the requirements of Section 6 of the CAPP and Section 28.D of EM-385-1-1. Contractors shall define their compliance with these requirements in the Training sections of their APP and its SSHP.

Contractors training programs shall include the following:

- General training in compliance with Section 28.D.01 of EM-385-1-1, which applies to project personnel exposed to contaminant-related H&S hazards.
- Project-specific training relevant to specific EM-385-1-1 sections or OSHA standards applicable to site work and operations.

Section 4

Medical Surveillance

Contractor medical surveillance programs shall comply with Section 28.E of EM-385-1-1. Contractors shall ensure that all personnel performing onsite work which results in exposure to contaminant-related H&S hazards are enrolled in a medical surveillance program that complies with OSHA's 29 CFR 1926.65 (f) and 29 CFR 1910.120 (f).

Contractor medical surveillance program requirements include the following:

- Certification of medical surveillance participation by employees shall be readily available upon request. Certification shall include: employee name, date of last examination, and name of examining physician(s).
- The required written physician's opinion shall be made available upon request to the GDA.
- Medical records shall be maintained in accordance with 29 CFR 1910.1020.
- Should any unforeseen hazard become evident during the contractor's performance of work, the SHSO shall bring such hazard information to the attention of their SHM and the GDA (both verbally and in writing) for resolution as soon as possible. In the interim, any necessary action shall be taken by the contractor to reestablish and maintain safe working conditions at the site.

Section 5

Site-Specific Work Practices and Safety Procedures

The following work practices and safety procedures are directives which are site-specific to the Libby Asbestos Project Site. Contractors shall ensure compliance with the following during site operations of their employees or subcontractor's employees.

5.1 Fire Protection

All contractors shall strictly adhere to U.S. Forest Service Fire Restrictions that are typically implemented in the dry parts of the summer. Adherence to the restrictions shall be discussed with USACE and EPA. Information related to any fire restrictions or alerts can be found at the following web site: fs.usda.gov/kootenai.

5.2 Industrial Vacuum Truck Requirements

All industrial vacuum machinery employed by the contractors must have in-line pressure relief valves or other equivalent safety features that allow for pressure relief in the event that personnel are caught in the vacuum hose. The RC shall include vacuum operation procedures in its APP which describe how they intend to mitigate the risk of personnel being caught in vacuum hose. These procedures shall also include training for all personnel working with and around the machinery. If cutting tools are to be used in the procedures as a means to remove the energy out of the line, they shall be used in the correct manner and for their intended purpose. Improper usage of utility knives and cutting tools during attic removal activities has led to past project-related injuries and employee leave of absences.

The contractor's operator of the vacuum machinery must be in constant communication with personnel inside the exclusion zone so that appropriate actions may be taken in the event of an emergency.

The vacuum machinery shall be operated in accordance with the manufacturer's operating instructions, which shall be provided as an appendix to RC's SSHP.

5.3 Housekeeping

The contractors shall, at all times, maintain work areas free from accumulations of waste material, trash, and debris caused by their work. Each work area shall be cleaned each day, if applicable, by the site's controlling contractor (e.g., the RC at a residential removal site) or as often as necessary to remove fire and safety hazards discovered through regularly scheduled inspections. All generated ACM waste must be removed from the site on a daily basis. Under no circumstances shall ACM waste or other debris be allowed to accumulate onsite.

5.4 Material Handling

Material handling shall be performed in accordance with the RAWP. The RC shall adequately wet contaminated soils prior to its loading into trucks. Prior to covering each load, the RC shall wet the material to avoid any potential releases. The RC shall inspect all trucks used to haul contaminated soil to ensure that the tarps adequately seal off the truck bed and prevent dust emissions during transport. The TPIC shall also regularly inspect haul truck tarp systems and procedures to ensure they are in compliance with project requirements. Both the RC and the TPIC shall inspect loads while being dumped at the disposal sites in conformance with project specifications. These inspections shall be documented by both the TPIC and RC in a format found acceptable to EPA and USACE.

5.5 Demolition

All demolition activities, interior (i.e., building material) and structure, shall be performed in accordance with the RAWP.

All structure demolition must be reviewed by EPA and the USACE onsite representative prior to the start of work. The TPIC must be informed by the RC of all interior and structure demolition activities prior to the start of work to coordinate air sampling.

5.6 Landfill Operations

All Libby Asbestos Project activities conducted in the asbestos cell (cell) of the Lincoln County Class IV Landfill shall be in accordance with the RAWP and the Lincoln County Class IV Landfill Operations Plan, Revision 2 (CDM 2008) (Landfill Operations Plan). The Landfill Operations Plan outlines specific procedures to be used by the RC when any project-related activities are performed in the cell, such as dumping, hauling, and burying ACM; maintaining the cell in proper working order; and decontaminating hauling vehicles, equipment, and personnel. The RC shall make the Landfill Operations Plan available for worker review at the Landfill site, and shall discuss its applicable safety procedures in regular toolbox safety meetings.

5.7 Mine Road Operations

All Libby Asbestos Project activities at the Mine Site shall be conducted in accordance with the RAWP and the Libby Mine OU3 Soil Disposal Plan (CDM 2011a) (Soil Disposal Plan). The Soil Disposal Plan is a safety-oriented plan for Mine Site operations and focuses on traffic management; heavy equipment operation; safe material handling; and decontamination of hauling vehicles, equipment, and personnel. The Soil Disposal Plan also contains information and protocol for fire management at the site.

The RC shall make the Soil Disposal Plan available for worker review at the Mine Site, and shall discuss its applicable safety procedures in regular toolbox safety meetings.

5.8 Personal Protective Equipment

Activities to be performed during the project will frequently require the use of clothing and equipment that shields and/or isolates employees from asbestos and physical hazards that may be encountered.

Based on a historical review of project activities, the following work classifications shall be used to determine the required PPE for a particular task. Refer to Table 5-1 for minimum required respiratory protection based on the activities expected to be performed onsite.

Interior removal activities are typically composed of the following five distinct work types:

- Interior Demolition - uses intrusive methods such as cutting, sawing, or demolishing existing materials to access vermiculite-containing materials
- Bulk Removal - involves removal of bulk vermiculite-containing insulation (VCI), LA asbestos, associated insulation, and other ACM from containment areas
- Detail Cleaning - performed once bulk removal is complete to remove any remnant VCI or LA asbestos from cracks, crevices, or other areas that were not addressed during bulk removal
- Interior Cleaning - cleaning activities performed in an interior living space
- Confirmation Sampling

Exterior removal activities relate to soil excavation and are not divided into separate categories for PPE selection.

Building demolition typically involves a structure that has not had all of its ACM removed before such activities. Building demolition may only be performed with the prior consent of EPA. A site-specific work plan must be provided by the removal contractor before the start of building demolition activities.

5.8.1 Levels of Protection and Minimum Requirements

Each type of protective equipment is designed specifically to protect against a reasonably anticipated hazard. To standardize PPE ensembles, “levels of protection” have been defined to address hazards present at the site. The levels of protection and their minimum required PPE are provided in the following Table 5-1. Contractors may institute higher levels of protection than the minimum stated in this CAPP following evaluation by their H&S management and the permission of the USACE onsite representative and the RPM.

Contractors shall state the required levels of protection and PPE for each of their site tasks in their APP.

**Table 5-1
Levels of Protection and Minimum Requirements**

Level	Equipment	Protection Provided	Should be Used When:	Limiting Criteria
C-PAPR	<p>Powered air purifying HEPA cartridge-equipped respirator (PAPR)</p> <p>Hooded, disposable Tyvek or equivalent one-piece suit</p> <p>Latex/nitrile gloves</p> <p>Cut-resistant gloves when handling sharp objects (e.g., box cutters)</p> <p>Safety boots/shoes</p> <p>Hard hat</p> <p>Hearing protection when exceeding OSHA-defined limits</p>	<p>Provides the greatest level of respiratory protection for potential asbestos exposure</p>	<p>All Landfill operator activities performed in the exclusion zone at the Lincoln County Asbestos Landfill</p> <p>All VCI bulk removal activities</p> <p>All interior demolition activities</p> <p>Industrial vacuum machine (e.g., Hurricane) maintenance</p> <p>Non-routine tasks* at the mine</p>	<p>Use only when it is highly unlikely that the work being done will generate either high concentrations of vapors, gases, or particulates or splashes of material that will affect exposed skin.</p>
C	<p>Full or ½-face, air-purifying, HEPA cartridge-equipped respirator (APR)</p> <p>Hooded disposable Tyvek or equivalent one-piece suit</p> <p>Latex/nitrile gloves</p> <p>Cut-resistant gloves when handling sharp objects (e.g., box cutters)</p> <p>Safety boots/shoes</p> <p>Hard hat</p> <p>Safety vests¹</p> <p>Hearing protection when exceeding OSHA-defined limits</p> <p>Safety glasses²</p>	<p>Adequate respiratory protection for potential asbestos exposure during activities that are less intrusive than those requiring use of a PAPR</p>	<p>All attic detailing activities</p> <p>All interior cleaning activities</p> <p>Removal contractor personnel performing decontamination of equipment at Landfill, outside of Landfill operations hours, may choose to wear a full-face APR respirator instead of a PAPR</p> <p>All deck removal activities</p> <p>All Exterior Demolition activities</p> <p>Routine work involving soil transfer at the amphitheatre (see description below for details of routine task at mine)</p>	<p>PAPRs may still be required if the activities are anticipated to generate large amounts of dust, or are performed in interior areas that are limited in size.</p> <p>¹Safety vests only required during exterior removals.</p> <p>²Safety glasses required if ½- face respirator is used.</p>

**Table 5-1
Levels of Protection and Minimum Requirements**

Level	Equipment	Protection Provided	Should be Used When:	Limiting Criteria
C-Modified	Full or ½-face, air-purifying, HEPA cartridge-equipped respirator (APR) Hooded disposable Tyvek or equivalent one-piece suit Latex/nitrile gloves Cut-resistant gloves when handling sharp objects (e.g., box cutters) Safety boots/shoes Safety vests ¹ Hard hat Hearing protection when exceeding OSHA-defined limits Safety glasses ²	Adequate respiratory protection for potential asbestos exposure during activities that are less intrusive than those requiring use of Level C.	Appropriate interior cleaning or detailing activities All soil removal activities Appropriate small-scale vermiculite removals (SSVR) Confirmation sampling Limited hand work operations	All PPE is the same as Level C, but a decontamination trailer is not required for these activities. ¹ Safety vests only required during exterior removals. ² Safety glasses required if ½- face respirator is used.
D	Work clothes Safety boots/shoes Safety glasses Safety vest Cut-resistant gloves when handling sharp objects (e.g., box cutters) Hard hat Hearing protection when exceeding OSHA-defined limits	Provides protection against typical site physical hazards	Required during all non-Level C field activities	

*Any task which is not listed below is considered a non-routine task and shall require respiratory protection of a PAPR.

- Decontamination pad laborer duties including decontamination of equipment at the former W.R. Grace Mine Site.
- Former W.R. Grace mine amphitheater loader operator duties including off-loading, loading of trucks, and routine maintenance of loader equipment.
- Haul/water truck driver’s duties including routine maintenance of the haul/water truck, and driving trucks along designated truck route between Area 19 and the Amphitheater.

5.9 Air Monitoring Program

The Libby Asbestos Project Air Monitoring Program is designed to evaluate removal operations and to ensure that work practices and engineering controls are adequate for worker and public safety. Air monitoring consists of collecting personal and stationary air samples in support of interior and exterior asbestos removal activities. All samples are collected in accordance with the Response Action Sampling and Analysis Plan for the Libby Asbestos Site, Libby, Montana (RA SAP) (CDM 2011b). TPIC and/or its subcontractors shall collect these air samples during project-related removal activities. Personal samples are collected on a task-specific basis depending upon the amount and type of removal activities to be performed. The following Table 5-2 is provided for reference purposes and lists removal activities for which personal samples are collected. A full list of tasks and their air monitoring frequencies are provided in the RAWP.

Table 5-2 Removal Tasks for Personal Air Sampling

Work Task	Description
Landfill Operator Activities	All dumping and decontamination activities
Interior Demolition	Sawing, cutting, or demolishing activities used to access contaminated material for removal
Bulk Removal	Removal of bulk VCI material
Mine Road	Amphitheater and Area 19 operations non-routine tasks
Mine Road	Amphitheater and Area 19 operations routine tasks
RC Decontamination of Equipment at Landfill	Equipment decontamination at pad by RC outside of Landfill operations hours
Detail Cleaning	Final cleaning of areas where bulk removal has been performed
Interior Cleaning	Interior dust cleaning
Equipment Operator	Heavy equipment operator
Water Hose Operator	Maintains dust suppression during excavation activities
Laborer	Supports exterior removal activities

5.9.1 Air Sampling During Interior Removal Activities

Personal Breathing Zone Air Sampling

Personal breathing zone (BZ) air samples shall be collected on RC personnel conducting VCI removal to document that the level of respiratory protection is adequate for the task being conducted. All personal BZ samples shall be collected in accordance with the procedures outlined in the RA SAP and Appendix B of OSHA Standards 29 CFR 1926.1101. Sampling frequencies for personal BZ air monitoring were established using task-based personal BZ sampling data collected from the 2002 through 2005 field construction seasons in Libby. Tasks associated with interior removal activities include demolition, bulk removal, detailing activities, and interior cleaning activities. These samples shall be analyzed using the laboratory analytical method National Institute for Occupational Safety and Health (NIOSH) 7400 unless results warrant confirmation by transmission electron microscopy (TEM). That is, if

phase contrast microscopy (PCM) results are greater than the respective time-weighted average (TWA) and excursion limits as defined by OSHA, the sample may be analyzed by TEM to confirm the presence of asbestos as specified in the RA SAP.

5.9.2 Air Sampling During Exterior Removal Activities

Stationary Air Sampling

During contaminated soil removal, the perimeter of the exclusion zone shall be monitored for asbestos fiber migration by collecting a stationary air sample at the exclusion zone boundaries in the downwind direction. The project adheres to an EPA-directed project-specific standard which states that if two or more LA structures are detected on a perimeter monitoring event, USACE onsite representative and the RC project manager, SHSO, or site supervisor shall halt removal property operations, assess site work practices, evaluate factors that contributed to the release, and modify engineering controls as necessary. Stationary air sample calibration and collection procedures shall be conducted in accordance with EPA Standard Operating Procedure (SOP) 2015 - Asbestos Sampling 11/17/94 Rev. 0.0 and the RA SAP. Requirements for analysis of stationary air samples are outlined in OSHA Standards 40 CFR 763 Subpart E, Appendix A, with site-specific modifications detailed in applicable modification forms.

Personal Breathing Zone Air Sampling

Personal breathing zone (BZ) air samples shall be collected on RC personnel conducting contaminated soil removal to document that the level of respiratory protection is adequate for the task being conducted. All personal BZ sampling shall be conducted in accordance with the RA SAP. Sampling frequencies for personal BZ air monitoring were established using task-based personal BZ sampling data collected from the 2002 through 2005 construction field seasons in Libby. Tasks related to contaminated soil removal include water hose operator, equipment operator, and laborer.

Personal BZ air sampling shall consist of collecting one TWA sample and one short-term exposure limit (STEL) (i.e., one 30-minute excursion) sample per task a minimum of every 6 months. Personal BZ air sample collection procedures shall be conducted in accordance with OSHA Standards 29 CFR 1926.1101 Appendix B. These samples shall be analyzed using NIOSH 7400 unless results warrant confirmation by TEM. That is, if PCM results are greater than the respective TWA and excursion limits as defined by OSHA, the sample may be analyzed by TEM to confirm the presence of asbestos as specified in the RA SAP.

5.10 Class I Asbestos Work

The RC shall provide notification to the EPA and USACE onsite representative prior to the start of any OSHA-defined Class I asbestos work. This includes any activities involving the removal of thermal system insulation (TSI), surfacing ACM, and presumed ACM.

Appendix B

Project Forms and Map to Hospital

ACTIVITY HAZARDS ANALYSIS

Overall Risk Assessment Code (RAC)
(Use highest code)

Date: Project:

Activity:

Activity Location:

Prepared By:

Risk Assessment Code Matrix

		Probability				
		Frequent	Likely	Occasional	Seldom	Unlikely
Severity	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

	JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
X	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
X	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
X	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

	EQUIPMENT	TRAINING	INSPECTION
X	<input type="text"/>	<input type="text"/>	<input type="text"/>
X	<input type="text"/>	<input type="text"/>	<input type="text"/>
X	<input type="text"/>	<input type="text"/>	<input type="text"/>
X	<input type="text"/>	<input type="text"/>	<input type="text"/>

Involved Personnel:

ACTIVITY HAZARDS ANALYSIS

Acceptance Authority (digital signature):

MEDICAL EMERGENCY PROCEDURES

In the event of a medical emergency the following general procedures should be followed:

1. For an emergency involving in the Exclusion Zone; **DO NOT MOVE PATIENT.**
2. Assess the situation and move the patient **ONLY** if a fire or IDLH situation exists.
3. Call 911 and notify them of potential asbestos contamination*.
4. Call Emergency contacts below to report emergency.

*If medical condition is life threatening, secure medical treatment ASAP

EMERGENCY CONTACTS

ER Office – 406-293-2082

Mitch Fahland cell 406-334-0855

PRI Office – 406-293-3690

Rob Burton cell – 406-291-7993

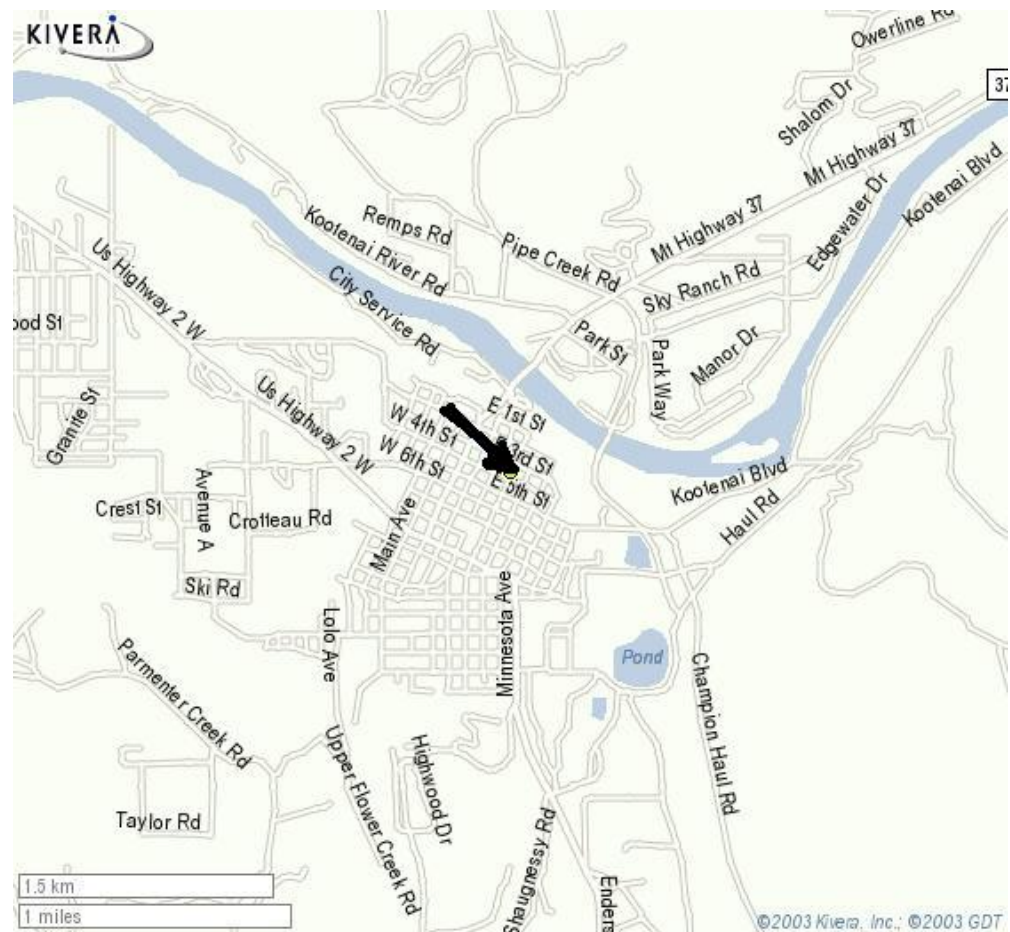
EPA Office – 406-293-6194

Mike Cirian cell – 406-202-3791

CDM Office – 406-293-8595

Damon Repine cell – 406-293-1374

Nick Pisciotta cell – 406-291-4249



ST JOHNS LUTHERAN HOSPITAL Phone: 406-293-0100, 350 Louisiana Ave, Libby, MT 59923

