



Rocky Mountain  
Remediation Services, L.L.C  
*... protecting the environment*

# **Safety and Health Program**

Revision 0

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## Section 1.0 Policy Statement

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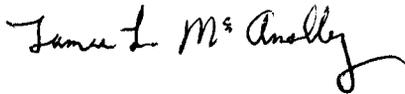
Employees are our most important asset and their safety is our greatest responsibility. It is the policy of Rocky Mountain Remediation Services, L.L.C. (RMRS) to provide a safe working environment by eliminating unsafe acts and conditions and to provide appropriate personal protective equipment and safety devices where hazards cannot be eliminated. Further, it is our objective to create a safety culture among our employees which fosters an understanding that they have the ultimate responsibility for their own safety as well as their co-workers.

It is the intent of RMRS to:

- (1) Develop an understanding that the line organization is responsible for the implementation of safe work practices,
- (2) Comply with all federal, state, and/or local regulations and client rules governing safety at the jobsite,
- (3) Take expedient action to correct unsafe actions or conditions,
- (4) Promote safety awareness,
- (5) Encourage open communication between line management and labor that will result in the identification of unsafe acts and conditions without fear of retribution,
- (6) Provide training in hazard awareness and to support the accident reduction techniques necessary to implement this policy.

Every effort will be made to assure that employees can accomplish their assigned tasks safely. No task is so important or so urgent that we cannot take the time to do it safely. Our goal is "Best In Class In Safety".

Rocky Mountain Remediation Services, L.L.C.



James L. McAnally  
President

## Section 2.0 Safety Program Objectives

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### 2.1 Approach to Effective Program Implementation

Rocky Mountain Remediation Services L.L.C. (RMRS) is committed to providing a working environment for our employees and subcontractors that is safe, healthful, productive and compliant with federal and state laws and regulations. Meeting this commitment will be contingent on line managers effectively managing safety, and workers who possess the ability and the motivation to identify and mitigate hazards in the work place. Attaining RMRS' goal of "Best In Class In Safety" will require:

- **Planning** - preparing a robust hazard analysis of the work place and the integration of a formal mechanism of hazard reduction during the early phases and throughout the life cycle of a project
- **Establishing Priorities** - allowing for the appropriate allocation of resources focused primarily on the control of high and moderate probability and consequence hazards in the work place
- **Accountability** - establishing meaningful performance metrics to measure progress
- **Enforcement** - understanding that less than acceptable safety performance carries a cost and exemplary performance will be rewarded

The implementation of this philosophy typically begins with the preparation of a project specific safety and health plan (aka., Construction Safety and Health Plan or Site Safety and Health Plan) which will apply throughout the life cycle of the project. Individual work packages will be broken down into discrete tasks which will be further analyzed to prioritize hazards and determine appropriate control measures. The plan's overriding objective will be to support a method of operations that will minimize the potential for unsafe behaviors and conditions that can result in injuries, illnesses and non-compliance with established standards.

The RMRS Safety Program, as described in this document, consists of two separate volumes. Volume I is comprised of programmatic elements designed to establish a framework of guidelines that establishes the minimum necessary steps for an effective safety and health program. Volume II is a series of general safety and health procedures that provides guidance for compliance with various safety rules and regulations.

Experience has shown that institutionalizing this method of operations is contingent on successfully implementing the following steps.

#### Step 1 - Hold Line Management Accountable

This is the single, most significant contributor toward institutionalizing the method of operations that is necessary to meet RMRS' aggressive environmental, safety and health (ES&H) performance objectives.

## **Step 2 - Establish Definitive Programmatic Objectives**

Establish definitive expectations and objectives for direct hire and subcontract line management and staff in terms of specific performance milestones and encouraging their active role in initiating and supporting the safety and health program.

## **Step 3 - Secure Employee Participation**

Engaging the workers and securing their buy-in to the ES&H program is critical to its success. Management and staff will actively involve workers by encouraging their participation (work planning, training, safety committees and meetings) and leveraging their knowledge toward the identification and mitigation of unsafe behaviors and conditions.

## **Step 4 - Provide Line Management with Competent and Consistent Technical Support**

Recognize that the project safety and health representative serves as a technical advisor on safety and health related issues to line management. Implicit in this role is a close working relationship with direct hire and subcontractor supervision to secure a detailed understanding of field operations and the health and safety requirements that will apply.

## **Step 5 - Implement Core Functions for Integrated Safety Management**

Implementation of an integrated safety management approach is the cornerstone of the RMRS Safety and Health Program. The core functions of this approach include:

1. Defining the scope of work and conducting effective job planning.
2. Analysis of the specific hazards associated with the planned work.
3. Developing and implementing hazard specific controls.
4. Performing the work within the established controls.
5. Continuously assessing the work and providing feedback to all members of the project team.
6. Assessing the overall effectiveness of the safety program for areas of improvement.

This "Integrated Safety Management System" is further presented in Table 2-1.

## **Step 6 - Reward for Performance**

Incentives for superior ES&H performance are used to perpetuate behaviors which are consistent with the attainment of aggressive objectives and expectations. Worker recognition and incentives provide the positive reinforcement necessary to institutionalize ES&H awareness in day-to-day operations.

## 2.2 Project Safety and Health Program Plan Elements

Line managers, supported by the project safety and health staff, will assure the integration of the elements described in this safety and health program plan during all phases of each project. The elements associated with the project safety and health program plan should include the following:

- The project safety and health organization;
- Hazard characterization procedures and task hazard assessments;
- Hazard communication;
- Work planning;
- Environmental and personal monitoring requirements;
- Safety and health training requirements;
- Engineering controls;
- Medical surveillance requirements;
- Personal protective equipment requirements;
- Project specific Standard Operating Procedures (SOPs) and general safety rules as determined by the work methods; and
- Emergency response procedures.

## 2.3 Subcontractors

RMRS retains consultants and subcontractors and, as such, is obligated to inform each of any health and safety hazards which may be related to work performed under their contracts. As a means of meeting this obligation, project management will make available to each subcontractor a copy of this program and any supporting project safety and health plans. Project management may, at its discretion, choose to allow a subcontractor to develop and implement their own safety and health plan as long as it is found to meet the minimum requirements specified in this manual. The subcontractor may also be given the opportunity to adopt and supplement RMRS project safety and health plans with safety and health information applicable to their employees to the extent that the additions do not conflict with information provided by project management.

In all cases, contracts between RMRS and its subcontractors will contain language that will cause the subcontractor to comply with this safety and health program and any supporting project safety and health plans as a minimum.

## 2.4 Program Availability

A copy of this document and supporting project safety and health plans will be available at each project field office. The Safety and Health Program Plan will be maintained at the RMRS corporate office. Additionally, these documents shall be made available upon request to all employees, subcontractor representatives, union representatives and the agencies having regulatory authority over the project.

**Table 2-1 Integrated Safety Management System  
Character of Work Management**

Functions	Department Mission Planning	Establish Work Agreements		Perform Contract Work		
		Client	Contractor	Manager	Supervisor	Worker
Plan Work	Establish mission objectives; allocate resources	Establish mission-to-work objectives and funding priorities; negotiate contract and project agreements	Plan, schedule, and cost projects; negotiate contract and project agreements	Implement project agreements, design and schedule work	Lead safe work planning teams, develop work packages; assess worker training and qualifications	Participate in work planning; ensure work is understandable, doable; train and qualify for work
Analyze Hazards	Identify, evaluate sociopolitical mission hazards	Establish analysis expectations	Establish and maintain analysis processes and capabilities	Perform hazards review and engineering hazards analyses; examine program interface hazards	Perform job hazards analyses; examine job interface hazards	Walkdown job, identify potential problems
Establish Controls	Issue policies and standards; participate in national standards development	Establish governing standards and processes to assure work outcomes	Establish governing standards; establish work management systems and site-wide ES&H programs; participate in national, state, and local standards development	Establish project controls and authorizations; maintain staff capabilities; address hazards analysis results (eliminate and control hazards)	Write procedures, establish job controls and authorizations	Follow craft procedures, written procedures, and work authorizations
Perform Work	Oversee mission progress	Establish work performance measures; monitor work progress	Schedule work activities, control interfaces, measure performance	Schedule and manage work activities	Oversee and direct work; report progress	Perform work
Assess and Feedback	Review, revise mission objectives; resource allocation and policies, as needed	Review, revise contract/project agreements, governing standards, and oversight protocols, as needed; perform oversight	Review, revise work plans, work management processes, and assessment protocols, as needed; perform management assessments; arrange independent assessments	Review, revise work packages and work authorizations, as needed; perform management assessments	Review, replan activities, and work controls; advise manager, as needed; participate in assessments	Review conduct of work and work controls; advise supervisor, as needed; participate in assessments

## **Section 3.0 Program Organization and Responsibilities**

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### **3.1 Purpose**

All levels of management, in partnership with labor, must share equally in the responsibility of creating a safe and healthful working environment. The ultimate expectation is to create an incident-free work place where the opportunity to contribute to the success of RMRS is optimized. Fulfillment of this expectation, however, will also rely upon the collective ability of RMRS to:

- A. Pursue work that is profitable and within its expertise.
- B. Minimize disabling injuries and illnesses.
- C. Reduce accident and incident costs.
- D. Apply expert technical support in areas of accident, illness and injury prevention.
- E. Minimize the basis or potential for third-party claims.
- F. Project an image of "corporate" responsibility in all of its operations.

Meeting this objective also requires that RMRS be organized in a way that places the responsibility for safety and health performance within the line organization and optimizes the ability of the staff function to provide current and accurate technical counsel and support.

### **3.2 Organization**

The organization must reflect executive management's commitment to vest the responsibility for environmental safety and health (ES&H) with the line organization. In other words, managers manage and are accountable for safety as they would be for any other project management function. The project ES&H representatives fulfill staff obligations which are intended to facilitate the safety and health implementation process by providing the line organization with the safety and health technical and regulatory expertise necessary to be effective.

### **3.3 Duties and Responsibilities**

Job descriptions for safety, industrial hygiene, and environmental personnel are contained in the Job Classification Manual maintained by Human Resources. Specific titles for these job descriptions may vary from project to project. These job titles should be considered working job titles. The specific duties associated with these practices will vary depending upon the size and type of operation. However, typical duties/responsibilities are described in the following sections.

### **3.3.1 Group or Project Manager**

This individual has the ultimate responsibility for executing and maintaining an effective program of employee protection, of safe-guarding exposure to the public and of protecting the environment as required by RMRS, client, and regulatory authorities.

This manager may delegate authority to expedite and facilitate any application of the established programs.

As with senior management, it must be recognized that strong support and active participation at the Group or Project Manager level is essential to preserve human resources, to minimize lost production and costs due to accidents and environmental incidents, and to achieve maximum satisfaction of clients and regulatory authorities.

Duties/responsibilities shall include:

1. Assures that adequate controls for potential safety and health exposures and hazards have been established.
2. Assures the preparation and implementation of an effective project Safety and Health Program to achieve compliance with applicable RMRS policies and regulatory laws, regulations and standards.
3. Directs the development and implementation of accident prevention, hazard control and environmental protection procedures and practices including methods for employee training, objective enforcement of established rules and procedures and the safe handling, storage and disposal of hazardous and/or radioactive materials.
4. Personally promotes and participates in the Safety Program and audits work operations to ensure compliance of lower tier supervision with established policies and mandatory requirements.

### **3.3.2 RMRS Operations Management**

1. The success of RMRS' Safety and Health Program depends heavily upon the active support and participation of top managers and intermediate staff supervisors.
2. The senior manager of each RMRS Operations Program shall be responsible for monitoring and positively influencing the safety performance of all operations within RMRS.
3. When performance is substandard and is not meeting the goals established by RMRS, the senior manager shall take immediate steps to bring the poor performance back into conformance with established goals and objectives.

**3.3.3 Field Supervisor - Duties/responsibilities shall include:**

1. Maintains a work environment which ensures the maximum safety and health of employees and the protection of the environment.
2. Orients new employees and is responsible for the work methods and safety and health procedures on the work performed under his or her individual assignments.
3. Conducts inspections and implements corrective measures for noted hazards in conjunction with and independent of the project Safety Supervisor or Representative.
4. Plans for and conducts weekly safety and health training meetings.
5. Executes the directives as instituted by the Group or Project Manager consistent with RMRS policies, client requirements and appropriate regulatory regulations and standards.
6. Provides employees, as necessary, with proper personal protective equipment and instructs them or ensures they are instructed on its proper use and maintenance.

**3.3.4 Director of Environment Safety, Health and Quality**

This individual is primarily responsible for managing the safety and health program for RMRS. He/she directs the establishment of policies, rules and procedures and administers the RMRS safety and health program as it applies to employee protection, public safety, equipment and property protection, occupational health and hazardous waste/substance control.

Primary duties include:

1. Serves as a principal technical advisor to the line organization on matters of safety and health.
2. Monitors operations and advises line management relative to compliance with applicable client, and regulatory rules, regulations and/or laws.
3. Assists RMRS' President in establishing annual safety performance goals and in promoting activities to help projects meet or improve upon these goals.
4. Responsible for the RMRS personnel in safety, industrial hygiene, and fire protection and prevention areas.
5. Provides technical support for and has administrative control over operating unit safety supervisors, and industrial hygienists.
6. Initiates periodic Safety and Health program evaluations of field operations and advises management with regard to technical adequacy and compliance with mandatory rules and regulations.

7. Directs and assists in the investigation of serious accidents and major environmental incidents. Analyzes investigative data and assists in the development of preventive measures to eliminate or control hazards and potential liability.
8. Assists RMRS field management in establishing effective site specific Safety and Health protection programs.
9. Assists in preparation of proposals, specifications and bidding documents.
10. Collects, develops and disseminates materials and information used in program development and to further safety and health protection training.
11. Compiles and distributes statistical reports on safety performance, accident costs, fines and costs of compliance.
12. Monitors the loss control activities of insurance carriers and brokers and assists in the establishment and coordination of loss control services.
13. Serves as RMRS' representative on technical committees and on professional associations. Advises the line organization on proposed standards and laws relating to safety and health.
14. Provides technical support with regard to regulatory compliance.
15. Plans and provides training programs, policies, and other technical support services to the project organization.

### **3.3.5 Project Safety Manager or Supervisor**

Employees with safety responsibilities generally fall into two categories: full-time as Safety Manager or Supervisor, or part-time as a Safety Representative.

Primary duties include:

1. Applies appropriate policies, practices and standards to promote RMRS Safety and Health Program and administers assigned functions to aid in this overall responsibility.
2. Administers and coordinates medical and emergency first aid services. Supervises medics, nurses and/or first aid attendants when the job is of sufficient size or in a remote location to warrant their employment.
3. Conducts industrial hygiene tests or supervises industrial hygienists to detect, eliminate and control hazards which could contribute to an occupational illness.
4. Inspects equipment, structures, and work in progress to assist project management in compliance with Safety and Health standards of RMRS and regulatory agencies.
5. Participates in safety planning and scheduling meetings.

6. Investigates injuries, conditions and incidents that do or could involve actual or potential liability and makes recommendations to eliminate future occurrences.
7. Prepares or directs the preparation of records and reports relating to Safety and Health protection and property losses required by law and by RMRS.
8. Administers and coordinates the project security and fire protection programs. If assigned, supervises the site security personnel.
9. Maintains, distributes and posts promotional materials to promote good safety and health practices.
10. Assists in the planning and presentation of Safety and Health training materials for employees and supervisors.
11. Acts as the primary liaison with insurance carriers and other regulatory authorities. Monitors loss control and claims handling activities and recommends actions to management to minimize costs.
12. As determined by contractual agreements or if requested, assists contractors and subcontractors in the development and administration of their S&H Program.

### **3.3.6 Safety Representative**

When projects do not warrant a full time Safety Supervisor, the Project Manager, with the assistance and agreement of Director of Environment Safety, Health and Quality, shall assign a responsible member of the field management staff to serve as the project Safety Representative.

Typically the Safety Representative shall be responsible for completing and maintaining records of all accidents and with performing other Safety and Health duties as assigned by the Project Manager. These duties will generally include: site and equipment inspections, investigations, liaison with insurance carrier and regulatory representatives (e.g. OSHA, MSHA, EPA, DOE, etc.) and training.

The designated Safety Representative must register for the Safety and Health Technician Certification through ABIH/BCSP certification testing, or the Safety Supervisor and Designated Safety Refresher training course. Additionally, they must have attended an OSHA 10-Hour Construction Safety or OSHA 10-Hour General Industry Safety course, as applicable, and completed the requirements for a "competent person" in the construction disciplines the project is involved with.

### 3.3.7 Industrial Hygienists/Environmental Specialists

It is the responsibility of project level industrial hygienists, environmental specialists and personnel having responsibilities in both disciplines to ensure that the practical application of industrial hygiene and environmental protection regulations/practices is focused upon achieving RMRS objectives. Those responsibilities assumed at this level typically include the following:

1. Performs or assures the performance of all required occupational health and environmental training in a manner consistent with the project scope of work.
2. Tracks, maintains and manages all legally required medical surveillance and environmental test records for the duration of the project.
3. Transmits or facilitates the transmittal of all required records at the predetermined frequency to long term records retention for archiving.
4. Monitors and investigates all occupational illness incurred by the project(s) on which they are assigned.
5. Applies accepted industrial hygiene and environmental procedures, techniques and work practices in a manner which reflects both technically sound and cost effective use of project resources.
6. Develops project specific occupational health and environmental protection plans which are both cost effective and responsive to the demands of the project technical work plan.
7. Assesses the needs, degree of specificity, and cost benefit of any program necessary to manage the chemical/physical hazards and environmental risks inherent to the project's scope of work.
8. Procures and maintains all consumable health and environmental protection supplies at a level sufficient to ensure no interruption of project operations.
9. Monitors compliance with all legislative requirements relative to the State and local jurisdiction in which the project resides.
10. Provides technical input regarding applicable ES&H regulations, manpower needs, and associated costs potentially incurred as a result of project execution.

### 3.3.8 Employees - Duties/Responsibilities

Generally all employees must learn and comply with the mandatory safety and health rules and regulations applicable to their work and to the general safety and health of other workers on the project.

Specific responsibilities include:

1. Notifies his or her supervisor immediately when conditions or practices may or do cause personal injury or illness or property damage.
2. Learns and observes all rules and procedures related to pollution control and environmental protection.
3. Reports safety and health hazards to his or her supervisor.
4. Makes the maximum use of all prescribed personal protective equipment and follow the good health practices and procedures established to maintain his or her health and safety.
5. Develops and practices good habits of personal hygiene and housekeeping.
6. Stops work when they or other employees are exposed to imminent danger conditions or other serious hazards or are unsure of conditions/safe conduct of activities.

### **3.3.9 Contractor/Subcontractor Responsibilities**

The Project Manager and/or Safety Representative will advise contractors and/or subcontractors of the provisions of the project Safety Program, client stipulations, and contractual obligations at a pre-job safety meeting. The obligation of all contractors and/or subcontractors to comply with applicable statutory safety and health laws, regulations and rules will also be covered. Contractors and/or subcontractors shall be advised that they have the sole and complete obligation to provide a safe and healthful working environment for its employees and for other persons at the project site who may be exposed to their work.

Where feasible, project management should request and review contractor's and/or subcontractor's safety performance indices such as recordable and lost workday incidence rates, experience modification rate, and past history of OSHA/MSHA citations.

Directives and general guidelines for contractors and/or subcontractor safety and health programs shall be provided to each company prior to job start-up. Minimum requirements for contractors and/or subcontractors should be to:

1. Designate in writing a qualified safety representative acceptable to RMRS and the client.
2. Provide a written safety and health program which includes procedures covering the work to be performed as meets the minimum requirements of the RMRS Safety and Health Program.
3. Complete and promptly report accident and injury reports. A copy of each insurance first report of injury and Supervisor Accident Investigation Report shall be provided to RMRS' Safety Representative. A monthly summary of occupational injuries and illnesses including manhours shall also be provided to RMRS.

4. Report immediately to the RMRS Project Manager and/or Safety Representative all fatal or serious occupational injuries or illnesses (requiring hospitalization). The contractor/ subcontractor shall investigate these accidents and shall submit a complete report as specified by RMRS.
5. Provide a safety and health orientation for all new hires which shall include, but not be limited to:
  - a. Personal protective equipment required
  - b. Fire prevention
  - c. Emergency procedures
  - d. Hazard communication
  - e. Substance abuse prevention
  - f. Security requirements
  - g. Housekeeping procedures
  - h. Equipment safety
  - i. Specific project requirements
6. Conduct and document weekly safety and health training meetings for all employees.
7. Inform all their supervisory personnel of the project safety and health program and of the contractor's/ subcontractor's responsibility of providing a safe and healthful place to work for their employees.
8. Report any OSHA/MSHA/EPA/DOE inspections and to provide a copy of any inspection reports and citations to RMRS.
9. Maintain all equipment and tools in a safe condition.
10. Cooperate with the client, RMRS and other contractors/subcontractors in maintaining a safe and healthful work place.
11. Conduct and participate in daily Environmental, Safety and Health inspections.
12. Provide a copy of all Material Safety Data Sheets (MSDSs) for hazardous chemicals being used or brought onsite by the contractor/subcontractor.

#### **3.3.10 Non-Conformance**

RMRS will monitor the Environmental, Safety and Health performance of contractors and/or subcontractors. RMRS will notify the contractor/subcontractor of non-compliance of any established safety and health rules or procedures.

If RMRS notifies any contractor or subcontractor of any noncompliance with the provisions of the project's Environmental, Safety and Health program or other client or statutory requirements, the contractor or subcontractor shall take prompt action and make all reasonable efforts to correct the unsafe or unhealthful condition(s) or act(s). Satisfactory compliance shall be made within a reasonable, specified time. If a contractor or subcontractor refuses to correct unsafe or unhealthful conditions or acts, RMRS will initiate appropriate actions in accordance with the contract provisions and may take one or more of the following steps:

1. Cease the operation or a portion thereof (particularly in the case of an imminent danger).
2. Correct the situation and back-charge the contractor or subcontractor.
3. Stop or hold up payment for the work being performed.
4. Invoke contract penalties and/or terminate the contract.
5. Continued substandard safety performance will cause a portion of subcontractor's monthly pay application to be withheld.

## **Section 4.0 Identification and Control of Hazards**

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### **4.1 Purpose**

Identification and control of physical, chemical, and biological hazards is paramount to the success of an effective safety and health program. This section describes various mechanisms to identify and control safety and health hazards that may be present on RMRS projects and sites. RMRS management with guidance from the safety and health management for the project or site shall implement the following:

### **4.2 Work Planning**

Effective safety and health protection is fostered through active worker involvement in the work planning process. Workers are often the experts on how work is to be accomplished and how hazards and uncertainties associated with the work can be controlled. Work planning is a process that determines the requirements, means, and design to accomplish the intended work safely and efficiently. Factors considered during work planning include:

- Task to be accomplished;
- Hazards and controls;
- Methods and procedures;
- Interface with support organizations;
- Impact on operations;
- Materials and resources;
- Priorities and schedules;
- Quality assurance; and
- Costs.

Effective work planning is accomplished by fully integrating safety and health early into the process by involving the safety and health organization, workers and other professionals into the planning process. Safety and health hazards and workers at risk can be identified. Appropriate protective actions and controls to eliminate or mitigate recognized hazards can be planned. Plans to educate and train workers on potential hazards and exposures can be developed.

Project management, assisted by the safety and health organization shall determine the appropriate procedure(s) for implementation of this work planning process.

### **4.3 Safety and Health Plans**

Client requirements and/or OSHA regulations may require the development and implementation of a project or site-specific safety and health plan. Plans developed and implemented under these circumstances must address the elements or topics specified by the relevant requirements. At a minimum, safety and health plans should address the following topics:

- Workplace inspections;

- Hazard assessments;
- Safety and health training;
- Personal protective equipment (PPE);
- Medical surveillance;
- Exposure assessments;
- Site control measures; and
- Emergency response.

#### **4.4 Hazard Analysis (AHAs/JSAs)**

All processes and operations should be evaluated for safety and health hazards associated with the process or operation and control measures specified through the use of Job Hazard Analyses (a.k.a. Activity Hazard Analysis and Job Safety Analysis). The development of the Hazard Analysis should involve supervision, employees, and safety and industrial hygiene professionals. The Hazard Analysis consists of the following procedure:

- Identify the principal steps involved and the sequence of work activities.
- Analyze each principal step for its potential safety and health hazards.
- Develop specific controls for each potential hazards.
- List the equipment to be used in conducting the work activity.
- List the inspection requirements for the equipment.
- Determine training requirements for workers.

All Hazard Analyses should be reviewed by project/operation management and supervision, employees, and safety and health representatives before and during implementation. The job supervisor and safety and health representative shall approve the Hazard Analysis.

#### **4.5 Workplace Inspections**

Inspection of workplaces for safety and health hazards shall be made at least daily by first-line supervisors. Identified safety and health issues and deficiencies, and the actions, timetable, and responsibility for correcting the deficiencies, shall be recorded in inspection reports. Follow up inspections shall be performed to verify that identified deficiencies are corrected and documented.

Periodic inspections shall be performed by project management of workplaces. These inspections should be performed at least monthly.

“Competent persons”, as defined by OSHA, shall inspect the work area for which they are responsible at least daily.

Safety and health representatives shall perform documented workplace inspections at least weekly in those areas for which they are responsible. The inspection should be routine, planned, and designed to include communication with specific people in the workplace.

A system for tracking safety and health deficiencies shall be established for each RMRS project or site. This system shall include a mechanism for documenting any and all corrective actions

taken to correct the deficiency and informing management and employees of identified safety and health hazards and controls.

#### **4.6 Exposure Assessments**

Exposure assessments shall be performed whenever the possibility exists that an employee may be exposed to a chemical or physical hazard (i.e. noise, radiation) in excess of the appropriate exposure limit (i.e. Permissible Exposure Limit or Threshold Limit Value) or regulatory requirements (i.e. lead, asbestos) obligate RMRS to perform an exposure assessment. Periodic reassessment of exposures shall be performed as appropriate. Exposure assessments shall be performed using recognized methodologies and use of accredited industrial hygiene laboratories, as appropriate.

#### **4.7 Controls**

Engineering, administrative controls, and/or personal protective equipment, in that order, shall be used to control or mitigate safety and health hazards that an employee may be exposed to. Engineering controls include, but are not limited to, the following methods:

- Process and/or material substitution; substitute a less toxic chemical for one which is more toxic or hazardous.
- Change a process or procedure to reduce the risk of injury or illness.
- Isolate or enclose the process or work operation to reduce the risk of injury or illness.
- Ventilate (general or local) the work area to reduce the concentration of airborne contaminants.

Administrative controls include, but are not limited to, the following methods:

- Limitation of time spent exposed to a safety and health hazard.
- Inspection of work practices and workplace conditions.
- Access restrictions to the work area limiting non-essential personnel.
- Work rules and operating procedures.
- Training and orientation.

Personal protective equipment includes, but is not limited to, the use of:

- Hard hats
- Safety glasses
- Safety shoes
- Respirators
- Gloves and other clothing

#### **4.8 Safety Councils**

RMRS projects/operations groups shall form safety councils. Council membership should include safety and health department personnel, line management and supervision, and craft workers.

## **Section 5.0      Indoctrination and Training of Employees**

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### **5.1      Purpose**

The purpose of this section is to define the requirements for health and safety indoctrination and training employees of RMRS.

### **5.2      Objective**

The objective of the indoctrination and training is to inform employees of potential safety and health hazards to which they may be exposed and the controls that are to be used to reduce the risk of injury and/or illness from potential hazards.

### **5.3      New Employee Safety and Health Orientation**

New employees shall be provided orientation concerning RMRS safety and health policies, the safety and health requirements, job rules and job conditions prior to assignment to a project or site. The purpose of the orientation is to welcome the new employee to the project or site, explain our safety and health program and expectations, and encourage the employee to be an active supporter of the program.

- A. The orientation is to be conducted by the Safety Supervisor and/or responsible supervisor. The individual conducting the orientation must be aware that this is the first contact the employee has with project management. First impressions usually dictate a person's perception and we do not get a second chance to make a first impression. Arrangements should be made prior to the orientation process to accommodate non-English speaking employees.
  
- B. The Safety Supervisor, or responsible superintendent, shall then provide a verbal orientation concerning the safety requirements appropriate to the project. The orientation shall be documented and should address:
  - 1.      Evacuation alarms and procedures
  - 2.      Emergency procedures
  - 3.      Lockout/tagout procedures
  - 4.      Excavation procedures
  - 5.      Procedures for confined space, trenching, heights, etc.
  - 6.      Personal protective equipment
  - 7.      Site map
    - a.      First aid/safety trailer location
    - b.      Smoking areas
    - c.      Off limits areas
    - d.      Tool room
    - e.      Toilet/change area
    - f.      Main office
    - g.      Parking

- h. Danger areas
- i. Lunch room
- j. Stretcher locations
- 8. Hazards unique to the site
  - a. Owner operations
  - b. Overhead power lines
  - c. Railroad tracks
  - d. Fire/explosion
  - e. Chemical
  - f. Radiation
  - g. Other contractor operations
- 9. Identify craft specific hazards — Advise the new craft employee what he/she will be working on initially and precautions to be taken on initial work assignment. Employees should be briefed on the process involving Job Safety Analyses (JSA) or Job Hazard Analysis (JHA) which describe the process of identifying hazards and establishing a plan for a control/prevention of those hazards prior to commencing each major phase or activity at the site.
- 10. Advise time and place that tool box safety meetings are held.
- 11. Explain safety incentives/goals
- 12. Advise current job-to-date safety record
- 13. Elaborate on RMRS' Return to Work/Restricted Work Policy
- 14. Describe the process for reporting and notification of the following:
  - a. All injuries
  - b. Near misses
  - c. Unsafe conditions
  - d. Unsafe acts

During the orientation ask enough questions to ensure that the orientation messages have been conveyed - and be sure to welcome the new hire to the project.

When appropriate, use of video tapes may be incorporated into the orientation; however, such use must be with care and always followed up with questioning to ensure conveyance of the message.

Additional considerations for the orientation process include:

- 1. Do not attempt to give an orientation without a script or outline.
- 2. Use the word "We" instead of "You" whenever possible.
- 3. Conduct orientations in separate rooms away from distractions.

#### **5.4 Job-Specific Health and Safety Training**

Employees shall be trained in the safety and health requirements and rules specific to the necessary knowledge, skills, and abilities required to safely perform the work. This training can be satisfied by reviewing relevant safety and health plans, activity hazard analyses, and/or operating procedures. Additional safety and health training may be required to satisfy OSHA rules and regulations (i.e. confined space entry).

## **5.5 Site-Specific Health and Safety Training**

Employees shall be trained in the safety and health requirements and rules unique to the particular work site.

## **5.6 Health and Safety Training for Supervisors**

All supervisors responsible for supervising or managing field work shall receive training regarding the responsibilities that they have regarding the safety and health program. Additional safety and health training required by federal regulation (i.e. 29 CFR 1910.120(e)) or client requirement shall be performed as necessary. All training shall be documented.

## **5.7 Tool Box/Safety Meetings**

Regularly scheduled tool box and/or safety meetings will be scheduled and conducted for all RMRS employees. The topics to be discussed at these meetings shall be at the discretion of the supervisor with guidance from the safety and health representative. Typical topics to be addressed at these meetings include potential hazards associated with work being performed, control measures associated with the hazards, and prior experience performing similar activities. These tool box/safety meetings will be conducted by supervisory personnel with the assistance of the safety and health representatives. These meetings will be conducted at least weekly or as required by client requirements. The topics, attendees, and individual conducting the training shall be documented.

## **Section 6 .0      Records and Reports**

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### **6.1    Purpose**

As in other phases of RMRS operations, there must be an effective means of collecting, recording and analyzing data. Specifically, it is necessary to collect and document information relating to accidents, safety and health hazards, environmental incidents, inspections and audits, training, exposure records, and regulatory impacts. The primary reasons for this process are as follows:

1. It allows for improvements in accident prevention which in turn reduces the number and degree of occupational injuries and illnesses and results in less human suffering and tragedy.
2. By accurately recording accidents/environmental incidents and their causes, it allows steps to be taken to remove the causes and eliminate future incidents, thus making every project a safe and healthful place to work.
3. It promotes safety resulting in: fewer accidents; reduced costs of worker's compensation and public liability insurance; and property damage; and increased production.
4. It provides safety and environmental protection research data which can be used to develop programs to control or eliminate specific safety and environmental hazards and to improve work methods.
5. It gives management the tools it needs to effectively educate employees in accident prevention and loss control, to reward employees for good performance, and to correct employees when they demonstrate unsafe or unhealthful practices.
6. It provides data which is needed to prepare reports required by client and/or local, state, federal and international regulations.

### **6.2    Additional Information**

1. Any questions concerning the interpretation, applicability, or usage of this recording and reporting process should be directed to the RMRS Environment Safety, Health & Quality Director.
2. The use of safety and environmental forms to record injury, illness, and exposure information must be approved by the RMRS Environment Safety, Health & Quality Director.

### 6.3 List of Required Records

The following is a list of required records:

- Worker's Compensation First Report of Injury (also satisfies OSHA 101 form)
- OSHA 200 log
- Supervisors' Accident Investigation Report
- Safety Meetings Records
- Medical Records/Reports
- Exposure Records
- Monthly Summary of Injuries/Illnesses

These records shall be maintained at the project site for the life of the project and transmitted to the RMRS corporate office at the end the project. All medical records and exposure records shall be maintained in accordance with the relevant OSHA standards. The OSHA 200 log and Worker's Compensation First Report of Injury shall be maintained for a minimum of five years beyond project end date or as required by OSHA standard or Worker's Compensation Law, which ever is longer.

### 6.4 Accident Record Keeping Standards

The established standards governing corporate policy on computing accident rates and evaluating occupational injuries and illnesses is the OSHA *Recordkeeping Guidelines for Occupational Injuries and Illnesses*.

### 6.5 Injury Recording and Reporting

#### 6.5.1 General

The purpose of this subsection is:

1. To ensure OSHA/MSHA, etc. compliance for injury recording and reporting;
2. Ensure timely reporting of injuries for Workers Compensation benefits;
3. Ensure availability and accuracy of injury data trend analysis.
4. Examples of injury/illness record keeping interpretations by OSHA may be found in the OSHA *Recordkeeping Guidelines for Occupational Injuries and Illnesses*.

#### 6.5.2 Definitions

1. **Fatality** — Injuries or illnesses which result in death.

2. **First Aid** — Cases which require minor treatment administered on the job site. First Aid cases include one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care even though the care may be provided by a physician or registered medical professional. Administration of a single dose of a prescription medication on the first visit for a minor injury is first aid. Re-treatments constitute Medical Treatment Cases. Repeated use of nonprescription medication, other than antiseptic, is a first aid cases.
3. **First Aid Non-Recordable** — Cases which require minor medical treatment administered by a clinic, hospital, etc. which will invoice a workers compensation payment.
4. **Incident Rate** — The injury frequency expressed in terms of the number of incidence per 100 man-years (200,000 man-hours). The incident rate calculated for lost time, medical, total OSHA recordable injuries and total lost work days.
5. **Lost Time Injury** — Injuries that result in time lost from the job in excess of the day of the injury.
6. **Medical Treatment** — Injuries which require treatment beyond first aid and are not lost time or restricted duty injuries. Medical injuries include (but are not limited to) stitches, fractures, loss of consciousness, surgery, prescription medicines, etc. Medical injuries are OSHA recordable.
7. **OSHA Recordable** — Those injuries and illnesses which are required to be recorded on the OSHA 200 Log. These injuries include lost time injuries, restricted duty injuries, medical injuries, and all occupational illnesses as defined by the OSHA 200 Log.
8. **Restricted Duty Injury** — Injuries or illnesses that result in the individual being assigned to light duty and/or temporary job assignment.

#### 6.5.3 Procedures

1. **First Report of Injury** — Every injury that requires medical treatment is to be documented on a First Report of Injury. The exact First Report of Injury, and the distribution thereof, may differ on each project. The Insurance Carrier used at the project will identify the correct First Report of Injury Form and distribution instructions for each project. The First Report of Injury is to be completed and distributed by the safety supervisor within 48 hours of the injury; failure to perform this task may result in fines being assessed against the company by the state of jurisdiction.
2. **Record of Injuries and Illnesses** — Records of all injuries and illnesses, including first aid cases, shall be maintained at the project site. This record is to be maintained by the Safety Supervisor at the jobsite and forwarded to the Director of Safety upon completion of the project.

3. **OSHA 200 Log** — All OSHA recordable injuries and illnesses are to be recorded on the OSHA 200 Log within six (6) working days of notification of the injury/illness by the Safety Supervisor. Failure to do so may result in fines being assessed against the company. The OSHA 200 Log for the previous year is to be posted for review by employees between February 1 and March 1 of each year. Instructions for logging and posting are contained on the OSHA 200 Log.
4. **Monthly Safety Summary** — The Safety Supervisor is to provide a monthly report consisting of a summary of all OSHA/MSHA recordable injuries and illnesses, the number of manhours worked, and results of safety inspections performed. The monthly safety report is to be distributed by the 5th day of the following month to the Director Environment Safety, Health and Quality. The Director Environment Safety, Health and Quality shall perform a tracking and trending analysis of injuries and illnesses on RMRS projects.

## **6.6 Reporting/Handling Procedures for Fatalities, Serious Accidents and Illnesses**

### **6.6.1 Responsibilities**

1. The Project Manager or Senior Supervising Manager on a project or company operation shall be directly responsible for notifying the Corporate Office as defined in Section 6.6.2 below and for carrying out the required procedures as indicated below.
2. Notification of the next of kin in case of a fatality, serious injury or illness is of primary importance and shall be handled in a sensitive and tactful manner. Notification should be done in person, whenever possible. If this is not possible, then assistance for notifying the next of kin should be obtained through the aid of friends, local church officials or the police.
3. Because of the interest and policy of company management and of the reports required by legal authorities and insurance carriers, certain reporting procedures shall be followed. These procedures are outlined in this Section.
4. In all cases involving a fatality or serious occupational injury or illness, an Investigative Report shall be prepared and submitted to the required authorities.
5. Documentation related to investigation of fatal and other serious accidents and/or injuries to project employees (whether Company, contractor or subcontractor) or the general public will probably be involved in future litigation, thus, legal counsel must be involved immediately. All reports must be directed to the RMRS's Legal Counsel as attorney-client confidential communication.

### **6.6.2 Notification of Corporate Office**

In case of a fatality, serious injury or illness requiring hospitalization of an employee, the Director of Environment Safety, Health and Quality shall be notified immediately.

### 6.6.3 Notification of Other Company Management

The RMRS Director of Environment Health, Safety and Quality shall notify the following persons or offices of all fatalities, or serious injuries or illnesses requiring hospitalization:

- President
- General Counsel
- Chief Financial Officer
- Senior Vice Presidents

### 6.6.4 Reporting Requirements

Fatalities:

1. Notify appropriate company management as indicated in Paragraph 6.7.3 immediately.
2. Notify next of kin at once or request assistance from home office.
3. Notify local police authority, coroner or medical examiner. Frequently, the attending doctor will make the necessary notifications, but project management is responsible for seeing that it is done.
4. Notify client or contracting officer as appropriate.
5. Notify insurance carrier by telephone, telex or full rate cable and follow by appropriate reports.
6. On U.S. projects, notify state and federal authorities such as the Occupational Safety and Health Administration (OSHA) or the Mine Safety and Health Administration (MSHA), if required by law or regulation.
7. Make arrangements as required for shipment of the remains or assist with the arrangements for local burial. If the family or next of kin is on the jobsite, arrange for their transportation home, if required.
8. On FOREIGN projects, notify the nearest American Consul or other appropriate diplomatic agency by telephone or telegraph and confirm at once by letter.
  - Advise authorities of any information concerning travel plans of persons who may be traveling to or from the jobsite to accompany remains, attend services or investigate accident.
  - Keep the Home Office informed, by cable or telex, of all additional information concerning the death and disposition of the remains. The airline, flight schedules and numbers shall be relayed to the Home Office when shipping the remains back to the U.S.

**NOTE:** If prior to or during the flight, the schedule is changed, the project or the person traveling with the remains shall notify the appropriate home office of such changes by the most expedient means.

- U.S. regulations prescribe that in the event of the death of an American citizen in a foreign country, the Consul will issue a Certificate of Death, take charge of the local possessions and estate of the deceased, settle any local debts and transmit the proceeds to the U.S. Treasury Department for further transmittal to local representatives or next of kin.
- While the U.S. Consul is also authorized to bury the deceased or, through the State Department, arrange the shipment of the remains to the United States, normally a clause in the Employment Agreement authorizes the Company to make such disposition of the remains and personal effects. If this is the case, the American diplomatic representative usually permit the Company to handle such matters. However, the American Consul should be consulted to obtain their permission and their instruction shall be followed.
- Advise the Consul that the next of kin is being notified to avoid duplication of effort.
- Advise the Consul of the disposition of the remains and personal effects, post notices, if so requested by the Consul, informing all local claimants against the deceased's estate to present their claim to the Consul.
- As soon as possible, if the deceased is on single status, conduct an inventory of his or her personal effects. This inventory shall be made by at least three persons, one of whom should be the project's Business Manager or Chief Accountant. Copies of the inventory shall be forwarded to the U.S. Consul, next of kin and Home Office. After the inventory, the personal effects shall be appropriately sealed and stored for safekeeping until shipment is made to the appropriate authorities or next of kin.
- Prepare Employer's First Report of Injury, Accident Data Report, Investigative Report and other reports as required. A copy of all reports and records shall be mailed to the Director of Safety.

**Serious Injuries or Illnesses:**

1. Immediately upon the occurrence of an accident or serious illness which results in the hospitalization of an employee, notify by telephone, telegraph, telex or full rate cable the appropriate company management as indicated in Paragraph 6.7.3.
2. Notify the insurance carrier and other authorities as required by client, local, state, federal or international regulations.
3. Notify next of kin.

4. Confirm the initial notification by a written report which includes the extent of injury or serious illness and the circumstances of its occurrence, place of hospitalization, name of attending physician, prognosis, and information regarding notification of next of kin.
5. Keep the RMRS contacts, as well as other interested parties, informed by periodic reports of the condition and progress of the seriously injured or ill employee.
6. Prepare and submit the "Employer's First Report of Injury" and other reports as required.

#### **6.6.5 Repatriation of Employees**

When an injury or illness requires the repatriation of a U.S. employee from a foreign project, the following procedures shall be followed:

1. Notification of the appropriate Home Office shall be made as indicated in Paragraph 6.7.2.
2. The notification shall be in the form of a telex and shall contain the following information.
  - Full name of employee
  - Social security number
  - Date of injury or onset of illness.
  - The current condition of the employee must be clearly indicated.
  - The type of medical services needed at the airport or during the flight, doctor specialty required and if an ambulance or special equipment will be needed upon arrival.
  - Name and job title of person(s) accompanying patient, if applicable.
  - Flight schedule and airlines involved.

NOTE: If prior to or during the flight, the schedule is changed, the Project Manager or the person traveling with the ill or injured employee shall notify the appropriate home office of such changes by the most expedient means.

### **6.7 Project Records and Reports**

#### **6.7.1 Distribution**

A copy of all accident reports, medical reports, certificate of death, investigative reports and other correspondence and telegrams relating to fatalities and occupational injuries or illnesses must be routed to the Director of Environment Safety, Health and Quality.

The RMRS President may direct additional distribution of these reports to RMRS managers/support staff.

## Section 7.0 Accident Investigation

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### 7.1 General Responsibilities

These procedures are applicable for the investigation of all accidents involving injury, illness, property damage, and/or "near misses". Fully documented reports are required of those accidents resulting in injury, illness, property damage, and "near misses" which had the real possibility of injury, illness and/or property damage.

The first priority in loss control is the avoidance of costly accidents. Generally speaking, the allocation of reasonable resources to prevent accidents is more cost effective than paying medical, legal and workers compensation expenses after an accident.

### 7.2 Definitions

1. **Accident** — an unplanned occurrence that caused or could have caused occupational injury or illness, death, or property/equipment damage.
2. **Occupational Injury or Illness** — The result of an accident. Occupational injuries are defined by OSHA as those injuries requiring medical treatment, loss of consciousness, restriction of work assignments.
3. **Cause** — A specific condition and/or act that caused or contributed to the accident. Normally, several conditions and/or acts are found in most accident investigations.
4. **Corrective Action** — The method suggested to correct a cause. There should be at least one corrective action for each cause.

### 7.3 Specific Responsibilities

Investigation of accidents involving injury, illness, property damage, and near misses are to be conducted by the injured individual's immediate supervisor/foreman or the immediate area supervisor/foreman in the case of property damage or near misses. The safety supervisor will act as a resource to the investigating official and assist in the investigation when necessary.

1. All lost time and serious accidents will be reported (Faxed) immediately to the RMRS President, Senior Vice Presidents and Director Environment Safety, Health and Quality.
2. A written accident report, approved by the cognizant manager, is to be provided to the Director Environment Health, Safety and Quality within 24 hours after the accident.

## 7.4 Procedures

1. **Plan before the accident happens.** The Project or Site Emergency Preparedness Plan should designate the following responsibilities:
  - a. Who's in charge?
  - b. Who will be responsible to make the accident scene safe for others?
  - c. Who administers first-aid to injured employee's?
  - d. Who gets equipment/materials to rescue/help injured employee?
  - e. Who calls ambulance service(s)? Which service?
  - f. Who secures the scene to preserve evidence?
  - g. Who takes injured employee to hospital?
  - h. Who calls the family?
  - i. Who calls the owner/client's representative?
  - j. Who takes pictures/video?
  - k. Who interviews witnesses?
  - l. Who calls OSHA?
  - m. Who notifies RMRS President/Director of Environmental, Safety, Health & Quality/Risk Management, Division Vice President?
  - n. Who notifies the insurance carrier's representative?
  - o. Who calls Fire Department? Which jurisdiction?
  - p. Who calls Police Department? Which jurisdiction?
  
2. Objectives to be achieved after an accident happens:
  - a. Control the scene to prevent additional injury to the victim, rescuers and/or other employees/public and preserve any evidence necessary for the investigation.
  - b. Provide for the welfare of the injured employee. Management should personally attend to the following:
    - Depending on availability, the project manager, superintendent, supervisor, or Safety Supervisor accompanies injured employee and takes him to the hospital or clinic. Caution should be exercised when transporting an injured employee as some injuries should not be transported alone.
    - Safety Supervisor arranges with the doctor and the clinic to expedite treatment (i.e., bringing an injured employee in a separate clinic door for immediate treatment after the call from the project).
    - Superintendent shall follow-up with a call/personal visit that evening to the injured employee's home/hospital, and thereafter as appropriate.
    - Superintendent should reassure/advise the injured employee that he is valued and wanted back at work.

- Superintendent should have injured employee explain what happened in his/her own words -- no leading questions! Have the employee demonstrate how it happened, if possible. The objective is to get a true picture of what happened so that we can prevent a similar accident to others. Ask the injured employee to describe his/her training and/or experience with equipment, where the foreman was at the time, etc.
  - A follow-up inquiry should be made at a "post-accident interview" to verify that the above requirements have been followed, provided, and documented.
- c. Secure the scene and start gathering facts immediately. All statements from employees should be obtained and documented immediately but in no event later than the end of the shift the accident occurred. Any delay (intentionally or unintentionally) may cause:
- Loss of control over the investigation.
  - Evidence to be destroyed/altered or lost.
  - Witness to change/compare/coordinate/rationalize their version of the facts.
- d. Advise Home Office/client/OSHA as appropriate.
- e. Secure the necessary facts to help prevent recurrence of a similar accident.
- Photos/video. Use tape recorder when practical.
  - Secure damaged property, tools, equipment (for later evidence, analysis by experts, etc.).
  - Questions and interviews should be fact finding not fault finding:
    - Let witness describe incident in their own words.
    - Avoid leading questions.
    - Interview witnesses separately.
- f. Get additional facts to aid in the defense of potential third party litigation/OSHA citations and/or subrogation of claims.

Identify:

- Damaged property.
- Make and model of equipment involved.
- Equipment maintenance and modification record.
- Complete information on any components of equipment that may have failed, including manufacturer and the name and address of the repair shop where the part was last installed/repared, etc.
- Name and address of all involved.
- Title, training and experience of those involved.

- Document/photograph, etc. all OSHA/MSHA/etc. safety violations or practices not consistent with safe industry practice.

3. Investigations should include the following:

a. What facts should be gathered concerning the accident:

- When gathering the facts of the accident, include the following:
  - Note if it was property damage or personal injury.
  - Time of occurrence.
  - Name of injured employee.
  - Location of accident.
  - Job classification.
  - Note if employee was performing a job other than his normal job, or working in a department other than his normal assigned department.
  - Identify the primary and contributing cause(s) of the accident.
  - Note any secondary causal factors.
  - The employees version of the accident.  
Obtain the statements of those employees who witnessed the accident.
  - Diagram the incident noting position of stock, machinery, equipment, injured party and witness.
  - Mark critical positions with chalk or paint.
  - Photograph the area of the incident.
  - Determine plan or corrective measures to prevent reoccurrence.  
List any additional recommendations or comments that may enhance the prevention measures for re-occurrence.
  - Keep the focus of the investigation on finding the cause(s).

b. How did the accident occur?

Describe in detail all of the facts of the accident, including the exact sequence of events that led to the accident, as well as seemingly insignificant facts.

c. Why did the accident occur?

- Why did the cause exist?
- Was the injured person distracted?
- Was the injured person poorly trained?
- Did someone fail to report the unsafe condition?
- Was the unsafe work procedure not identified previously?
- What did the Job Hazard Analysis cover?

d. Corrective action:

After evaluating the facts of the accident, the most likely conclusion will be that it was caused by a combination of several factors. The ones most responsible are the primary causes. These causes will be either a result of unsafe conditions or unsafe acts.

The recommendations to prevent a re-occurrence should be directed towards correcting all similar primary and contributing causes leading to the accident. The final report shall address the actions taken or plan to be taken to preclude re-occurrence.

e. Employee Involvement:

Employee should sign the completed accident report, with his input on how to prevent reoccurrence.

f. Discussion with Project Manager:

Employee and supervisor should meet with Project Manager to explain how they allowed the accident to happen.

g. Special Safety Meeting:

Serious or potentially serious incidents should be covered immediately in a special safety meeting to explain the status of injured employee and/or circumstances to fellow workers, so a similar accident could be prevented and to reduce employee apprehension/speculation.

h. Public Notification:

All inquiries by the press and media should be directed to RMRS Corporate Communications on accidents in which the media may seek comments. Adequate information should be forwarded to Communications beforehand to facilitate an adequate response.

## 7.5 Summary

An accident investigation is used to identify the cause(s) of an accident and determine the proper corrective actions. Virtually all accidents are caused by a combination of unsafe acts (about 80%) and/or unsafe conditions (about 20%).

1. Unsafe conditions relate to such physical and /or environmental conditions as:

- a. Improper or missing guards
- b. Equipment malfunctions or defects
- c. Improper tool for the task
- d. Improper illumination (too bright or too dim)

- e. Improper ventilation
  - f. Poor housekeeping
  - g. Unsafe storage
  - h. Inadequate clearance
  - i. Hazardous arrangement
  - j. Improper personal protective equipment for task or hazard
  - k. Abnormal temperature
  - l. Uneven/slippery surfaces
2. Unsafe acts relate to individual employee actions such as:
- a. Operating equipment or machinery without authority
  - b. Removing, adjusting or disconnecting safety devices
  - c. Operating unsafe or defective equipment
  - d. Using improper tool for the task
  - e. Disobeying established rules, procedures and practices
  - f. Taking an unsafe posture or position
  - g. Failure to lockout equipment
  - h. Crawling under/over/on machinery, equipment and conveyors
  - i. Distracting, teasing, abusing, startling, quarreling, horseplay, etc.
  - j. Improper care and use of personal protective equipment
3. Contributing causes relate to these items that attribute to or allow the primary condition to exist, such as:
- a. Disregard for instruction or warning
  - b. Failure to understand instructions
  - c. Poor vision
  - d. Diminished hearing
  - e. Fatigue
  - f. Intoxication/Drug Abuse
  - g. Deficiency of job knowledge or required skills
  - h. New employee on the job
  - i. Transferred to new job/department/plant
  - j. Improperly trained
  - k. Not physically suited to job or task
  - l. Pre-existing injury
  - m. Emotional/mental distraction
  - n. Improper attire for task
  - o. Improper personal hygiene practices
  - p. Improper or no inspection of job, machinery, equipment or department
4. Common errors encountered in accident investigation:
- a. When an accident occurs, there was either an unsafe act or condition present or a combination thereof. If neither is found to be existing, "Why?" must continually be asked.

- b. Stopping at the primary unsafe act(s) or condition(s) rather than seeking the contributing causes. If an injury accident were to occur as a result of an employee slipping on oil left by a leaking lift truck, the corrective action is not using additional absorbent. This would remedy the unsafe condition whereas repairing the lift truck would eliminate the hazard entirely.
- c. Assigning causes to accidents which are too general or vague fail to yield corrective action.
- d. Determining cause of an accident without the agreement of the employee involved. The employee involved and the investigator must arrive at similar conclusions as to cause of loss, for the investigation to be useful. Employees must be able to understand the cause or they will not make, or accept, corrective actions.