

DEPARTMENT OF ENERGY  
ALBUQUERQUE OPERATIONS OFFICE  
CONTRACT NO. DE-AC04-82AL18796

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# **Construction Safety and Health Management Program**

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Remedial Actions  
Contractor  
for the  
Uranium Mill Tailings  
Remedial Actions  
Project



MORRISON  
KNUDSEN

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PDR WASTE  
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MORRISON-KNUDSEN COMPANY, INC.

CONSTRUCTION SAFETY & HEALTH MANAGEMENT PROGRAM

UMTRA Project

Prime Contract No. DE-ACO4-83AL18796

Rev. No.

0

Date

October 1983

Designated Contact

MARV HENDERSON

UNITED STATES

DEPARTMENT OF ENERGY

ALBUQUERQUE OPERATIONS OFFICE

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Construction Safety and Health Management Program

Uranium Mill Tailings Remedial

Actions Project

October 1983

Prepared By:

Morrison-Knudsen Company, Inc.

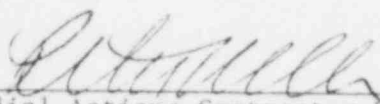
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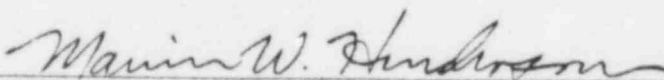
Document No. MK-UMTRA-4  
Revision No. 0

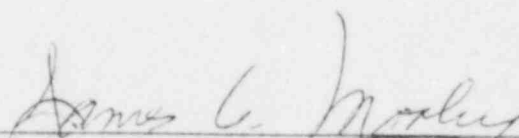
Construction Safety & Health Management Program

Approval

Approved:   
Remedial Actions Contractor UMTRA Project Director

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Approved:   
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Project Office



SAFETY AND HEALTH MANAGEMENT PROGRAM

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Table of Contents	i
	M-K Accident Prevention Policy	iii
	CNSI Corporate Safety Policy	iv
	Construction Subcontractor Safety Policy	v
	Regulations and Standards	vi
I	Purpose	1
II	Remedial Action Contractor Organization	2
III	Subcontractor Organization	5
IV	Scope of Responsibilities	6
	A. DOE UMTRA Project Office	6
	B. Technical Assistance Contractor	6
	C. Remedial Action Contractor	6
	D. Subcontractors	7
	E. Employees	9
V	Inspection & Enforcement	10
VI	Audits	13
VII	Fire Prevention and Protection	14
VIII	First Aid and Medical Program	17
IX	Remedial Action Contractor Records & Reports	20
X	Subcontractor Records & Reports	26
XI	Emergency Action	32
XII	Safety & Health Training Program	34
XIII	Radiological Control & Monitoring	37





TABLE OF CONTENTS, continued

<u>Section</u>	<u>Title</u>	<u>Page</u>
XIV	Environmental Control & Monitoring	38
XV	Access Control	39
XVI	Industrial Hygiene	40
XVII	Job Safety Analysis	46
XVIII	General Safety & Health Procedures	47
Appendix A	Posters, Records and Reporting Forms	62
Appendix B	Job Safety Analysis	64
Appendix C	Project Forms and Distribution Table	65



MORRISON-KNUDSEN COMPANY, INC.

ACCIDENT PREVENTION POLICY

In all of its operations, Morrison-Knudsen organization is guided by an established accident-prevention policy. This policy is based on a sincere desire to eliminate personal injuries, occupational illnesses and damage to equipment and property, as well as to protect the general public whenever and wherever the public comes in contact with, or is affected by the company's work.

Management and supervision are charged with the responsibility of preventing the occurrence of incidents or conditions that could lead to occupational injuries or illness. While the ultimate success of a safety and health program depends upon the full cooperation of each individual employee, it is management's responsibility to see that safety and health rules and procedures are adequate and enforced, and to see that effective training and education programs are employed to the best advantage.

Never should safety be sacrificed for production. It must be considered an integral part of quality control, cost reduction and job efficiency. Every supervisor will be held accountable for the safety performance demonstrated by the employees under his supervision.

MK has achieved an outstanding record in the safety field and is proud of its achievements in accident prevention. However, even though we believe our program to be most effective, we also recognize that as long as any possibility exists for even one person to suffer injury, we must continue to stress safety and to strive for improvement.

Our goal is the total elimination of accidents from our operations. There are three sound reasons for this goal:

1. No endeavor is worthy if it should cause human suffering through disabling injury or loss of life.
2. A good safety record reflects the quality of management, supervision and work force. It also serves to promote business and thereby contributes to the continuing growth and success of the Company.
3. Poor accident experience increases costs, and results in a loss of profits.

Our policy is to accomplish work in the safest possible manner consistent with good work practices. Management at every level is charged with the task of translating this policy into positive actions.

*W. H. Knudsen*

President and Chief Executive Officer



# CHEM-NUCLEAR SYSTEMS INC.

240 Stoneridge Drive, Suite 100 • Columbia, South Carolina 29210 • 803/256-0450

August 17, 1983

TO ALL EMPLOYEES:

It is our policy to provide a safe working environment and to avoid taking risks with the health or well-being of employees, customers, or the public in our pursuit of Corporate goals. To this end, safety will be given equal importance with all other factors in the making of management decisions.

Every employee has a first responsibility for safe job performance and is invited to make suggestions to his supervisor of ways to make the work-place safer.

Every supervisor will be held accountable for the prevention of accidents in his area of responsibility. Supervisors will be assisted in this goal through an on-going, company-wide effort to maintain proper work methods, safe working conditions, proper equipment, and by giving supervisors authority to match their responsibilities.

There is no aspect of production, sales or administration that is of greater importance than accident prevention.

Sincerely,

CHEM-NUCLEAR SYSTEMS, INC.

Michael J. Jump  
President

MJJ:ps



Construction Subcontractor Safety Policy

In performance of subcontracting activities for the Remedial Action Contractor (M-K), a commitment shall be established for accident prevention. Safety shall take precedence over schedule and production to eliminate personal injuries, occupational illnesses and damage to equipment or property, as well as protecting the general public whenever they may be affected by subcontractor's work.

Subcontractor management and supervision shall recognize the responsibility for compliance to all established codes, regulations, standards and procedures. Enforcement action is mandatory, therefore every supervisor will be held accountable for the safety performance demonstrated by the employees under his supervision.

A training program shall be effectively established for each employee soliciting their full cooperation with a belief that accidents can be prevented.



REGULATIONS AND STANDARDS

Remedial Action subcontractors must comply with all applicable federal, state and local health and safety regulations and standards including but not limited to those listed below:

1. U.S. Department of Labor, Occupational Safety and Health Standards for construction. (29CFR1926)
2. U.S. Department of Labor, Occupational Safety and Health Standards for general industry. (29CFR1910)
3. U.S. Department of Transportation, Hazardous Materials Regulations. (49CFR Part 171 through 177)
4. U.S. Nuclear Regulatory Commission, Standards for Protection Against Radiation. (10CFR Part 20)
5. U.S. Department of Energy orders as follows:
  - a. DOE Order 5480.1A Environmental Protection, Safety and Health Protection Program for DOE Operations.
  - b. DOE Order 5480.1 Chapter III Safety Requirements for the packaging of fissile and other radioactive materials.
  - c. DOE Order 5480.1 Chapter VII Fire Protection.
  - d. DOE Order 5480.1 Chapter VIII Occupational Medical Program.
  - e. DOE Order 5480.1 Chapter IX Construction Safety and Health Programs.
  - f. DOE Order 5480.1 Chapter X Industrial Hygiene Program.
  - g. DOE Order 5480.1 Chapter XI Requirements for Radiation Protection.
  - h. DOE Order 5480.1 Chapter XII Prevention, Control, and Abatement of Environmental Pollution.
  - i. DOE Order 5480.1 Chapter XV Motor Vehicle Safety Program. Reference 41 CFR 101-39.

The Remedial Action Contractor must comply, or assure implementation for compliance to all applicable federal, state, and local safety and health regulations and standards including but not limited to those listed below:

1. Items 1 through 4 referenced above in the RAC-subcontractors portion.



2. U.S. Department of Energy Orders as follows:

- a. Item 5, a through i referenced above in the RAC-subcontractors portion.
- b. DOE Order 5482.1A Environmental Protection, Safety, and Health Protection Appraisal Program.
- c. DOE Order 5483.1 Occupational Safety and Health Program for DOE, GOCO Employees.
- d. DOE Order 5484.2 Unusual Occurrence Reporting System.
- e. DOE Order 5484.1A Environmental Protection, Safety, and Health Protection Information Reporting Requirements.



SECTION I

PURPOSE





SECTION I - PURPOSE

This Construction Safety and Health Management program is directed toward accomplishing the following goals:

- A. Safe and healthy working conditions for all RAC and subcontractor employees.
- B. Protection of the general public from all actions of the RAC or subcontractors.
- C. Reduction of accident cost.
- D. To act as a guide for interpretation of current Federal, state, and local health and safety regulations and standards. This includes special DOE requirements applicable to this project.
- E. Morrison-Knudsen Company, Inc. project management personnel will not assume or relieve subcontractors from their direct responsibility for employee and public safety.



SECTION II

REMEDIAL ACTION CONTRACTOR ORGANIZATION



SECTION II - REMEDIAL ACTION CONTRACTOR ORGANIZATION

The Morrison-Knudsen Company, Inc. UMTRA Project Office in Albuquerque, NM, will be organized in the following manner to carry out the aforesated policies and purposes:

- A. The Health Safety and Environmental Manager(HS&E Manager)reports directly to the RAC Project Director and Deputy Project Director. The Vicinity Property, Radiological Programs Manager, Environmental Assessment Manager, and the Construction Safety and Health Manager report directly to the HS&E Manager. The Construction Safety and Health Manager is ultimately responsible to the RAC Project Director and has a functional responsibility to the M-K Corporate Director of Safety with respect to the Corporate Safety and Health policies and procedures.
- B. A Management Safety Committee shall be established consisting of the following members:
  - o Project Director (Chairman)
  - o Deputy Project Director
  - o Health Safety and Environmental Manager
  - o Vicinity Property & Radiological Programs Manager
  - o Environmental Assessment manager
  - o Project Control Manager
  - o Deputy Engineering & Design Manager
  - o Quality Manager
  - o Site Manager or Operations Manager
  - o Site Staff as required
  - o Construction Safety & Health Manager

Regular committee meetings will convene on a quarterly basis, however, special meetings may be called by any member of the committee to deal with special situations as they occur. The committee functions are as follows:

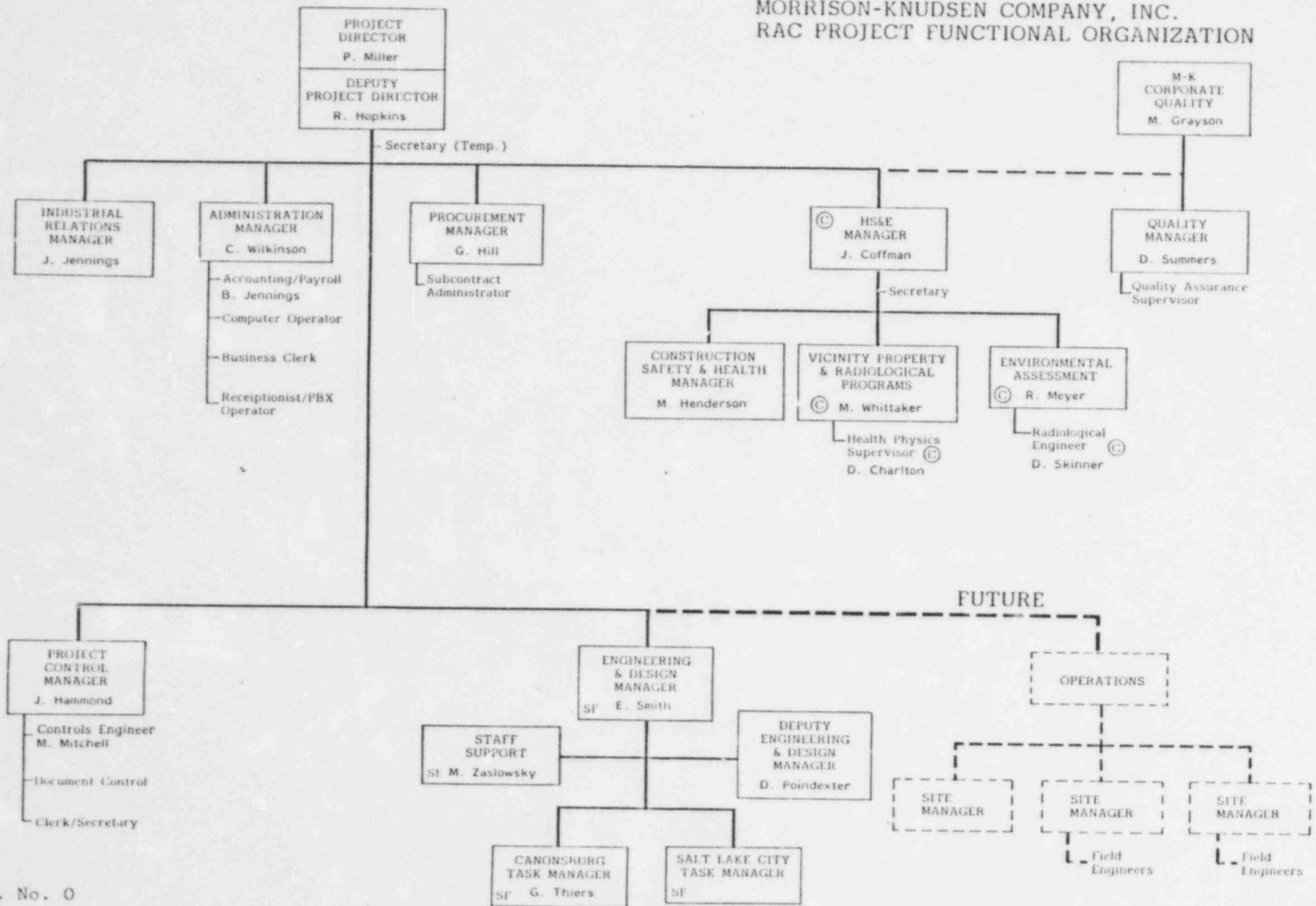
- o Review future construction activities and evaluate and prepare for unusual identifiable safety or health hazards.
- o Examine accidents and the circumstances surrounding them to determine a corrective action to prevent a repeat occurrence.



- o Conduct formal and informal audits to determine compliance with the Construction Safety and Health Management Program.
- o Inspection of work sites.

The HS&E Manager or a person designated by him shall record the minutes of these meetings.

FIGURE II-1  
 MORRISON-KNUDSEN COMPANY, INC.  
 RAC PROJECT FUNCTIONAL ORGANIZATION





SECTION III

SUBCONTRACTOR ORGANIZATION



SECTION III - SUBCONTRACTOR ORGANIZATION

During the course of the project, numerous RAC subcontractors will be involved. Their organizational structure will be diversified, ranging from simple to complex. A direct line of communication, interface, and authority shall be deemed essential to successfully implement a progressive Project Safety and Health Management Program.

Within the organizational structure, each RAC subcontractor shall designate a qualified person to implement the Construction Safety and Health Management Program at the work site. The designated person shall have authority for action and control of the work activity, to prevent accidents.





SECTION IV

SCOPE OF RESPONSIBILITIES



SECTION IV - SCOPE OF RESPONSIBILITIES

A. UMTRA Project Office (US/DOE) in conjunction with appropriate divisions of the Albuquerque Operations Office (AL) will:

1. Specify which Remedial Action Contractors are covered by this program, and include the requirements for compliance with the plan in applicable contracts.
2. An Environmental Safety and Health Plan will not be issued for each vicinity property but instead one plan will be issued for all properties in a city or geographical locale.
3. Conduct periodic safety and health audits of Remedial Action Contractors.
4. Act on employee complaints in accordance with established procedures.
5. Consider, in contract renewal or in other reviews of UMTRA project contractor performance, violations of prescribed DOE safety and health standards and the timing and manner in which corrections were made. In some cases, willful violations, refusal or failure to abate violations of environmental, health, and safety standards or regulations may be justification for contract termination.
6. Evaluate each project to identify other local, state, or federal agencies with safety and health responsibility and advise the Remedial Action Contractor(s) of such.
7. Participate in the development of new environmental safety and health standards and implementation procedures or modifications to existing standards issued by the DOE's Office of Environmental Safety and Health.

B. Technical Assistance Contractor (Jacobs-Weston Team) will:

1. Develop the UMTRA Project Safety and Health Plan.
2. An Environmental Safety and Health Plan will not be issued for each vicinity property but instead one plan will be issued for all properties in a city or geographical locale.
3. Develop a Radiological Support Plan for each mill site, vicinity property and associated disposal site.
4. Prepare the Health and Safety Survey Reports (HSSR).

C. Remedial Action Contractor (M-K) will:

1. Develop and implement a Construction Safety and Health Management Program.
2. Assure compliance with U.S. Department of Energy and UMTRA Project Safety and Health Plan.



3. Incorporate site specific information, such as special procedures and conditions peculiar to each mill site and vicinity property, into special conditions documents.
4. Assist or advise RAC subcontractors to implement the construction safety and health management program. The Remedial Action Contractor (M-K) will not assume or relieve their subcontractor(s), regardless of tier, from direct responsibility for employee and general public safety.
5. Develop a formal training program which includes, but is not limited to: industrial, radiological, environment, emergency and industrial hygiene safety conditions and procedures. The remedial action contractor or subcontractor personnel will conduct the required training. If the remedial action contractor finds it necessary, specialists may be included in conducting the training program.
6. Assure record keeping and reporting complies with UMTRA project prescribed requirements including other federal, state and local agencies rendering justifiable authority.
7. Submit request to the (AL) DOE contracting officer or his designated representative when a variance from applicable codes, regulations, standards or procedures have been defensively determined.
8. Conduct compliance inspections, informal and formal audits commensurate with task(s) in progress.
9. Under guidance of the Project Director provide a management overview for all safety and health requirements, ensure adherence to the management program, and participation by all supervision.
10. Act on employee complaints in accordance with established procedure.

D. Subcontractors

1. All Remedial Action subcontractors shall comply with all applicable local, state, DOE/UMTRA and federal safety and health codes, regulations, standards, and special procedures. The remedial action contractor's Construction Safety and Health Management Program shall be an integral part of the sub-contract including mandatory implementation and compliance by the various Remedial Action subcontractors.
2. The following documents must be posted or available at the work site according to jurisdiction:
  - a. OSHA Form 2203 \*Occupational Safety and Health Protection.
  - b. DOE Form EV-627 or EV-627S \*Occupational Safety and Health Protection.



- c. OSHA Form 7 "Occupational Safety and Health Complaint".
- d. DOE Form EV-628 or EV-628S "Occupational Safety or Health Complaint".
- e. The appropriate state posters will be posted whenever work is in progress in any one of the following states:
  - o Arizona
  - o New Mexico
  - o Oregon
  - o Utah
  - o Wyoming

Identification of these posters will be listed in the special condition of each contract.

- f. The mandatory Safety and Health Rules shall be posted around the job site in conspicuous locations along with the emergency phone number posters (see sample in Appendix A).
3. A record of all occupational injuries and illnesses shall be maintained. Medical and lost time cases shall be properly recorded on the OSHA 200 log. A copy of the insurance report for workmen compensation cases shall be provided to the remedial action contractor (M-K) within five days of employer's first report of accident.
  4. Each Remedial Action subcontractor shall provide or arrange for adequate medical and first aid facilities. There are numerous work sites in a number of states, consequently, the level of qualification for personnel in the medical and first aid facility will vary. Detailed information on these qualifications will be included in the contract special conditions.
  5. Each subcontractor shall conduct weekly safety training meetings documented by submitting a report of such to the remedial action contractor's Safety Department (M-K). The reporting form is M-K No. CAS-11 (see sample in Appendix A).
  6. Good housekeeping shall be observed at all times. Waste, debris, and garbage shall be removed daily, piled neatly or placed in appropriate waste containers. All materials, tools and equipment shall be stored in a safe and orderly fashion.
  7. All construction areas will require head protection and all supervisors, employees and visitors shall be required to wear approved hard hats while on the project site.
  8. Other appropriate personal protective equipment shall be provided and worn as required.



- 9. The subcontractor shall furnish all reasonable information concerning safety of his operations on the project as may be required by the Remedial Action Contractor's (M-K) Project Director.
- 10. Each Remedial Action subcontractor shall be expected to indoctrinate his employees as to the safety and health requirements and enforce adherence to safe work practices and procedures.
- 11. Attendance at a formal training program will be required of each subcontractor employee. Included in the training, but not limited to, will be industrial and radiological safety procedures, emergency procedures and instructions concerning prenatal radiation exposure where applicable. Respirator training will also be included when necessary. Initial training will be a minimum of four hours and a written or oral test will be given with documented results.
- 12. The Remedial Action Contractor (M-K) will notify its subcontractors of non compliance, with the provisions of this program through the use of M-K Form CAS-21. Subcontractors, so notified, shall make all reasonable efforts to correct the unsafe conditions or acts. Satisfactory corrective action shall be taken within a specified time. If the subcontractor refuses to correct unsafe or unhealthy conditions or acts, the Remedial Action Contractor (M-K) shall take one or more of the following steps:
  - a. Cease the operation or a portion thereof
  - b. Stop payment for the work being performed
  - c. Correct the situation using remedial action contractor employees and back charge the subcontractor for expenses incurred.

These above referenced actions will be administered through the remedial action contractor subcontract administrator.
- 13. Act on employee complaints in accordance with established procedure.

E. Employees

All employees must learn and comply with all safety rules and regulations applicable to their work and to the general safety of the other workers on the project. It is the responsibility of each employee to support project management in providing a safe place to work, to protect himself and co-workers against injuries and to report all safety hazards at once to project supervision.



SECTION V

INSPECTION AND ENFORCEMENT





SECTION V - INSPECTION AND ENFORCEMENT

A. Pre-Job Inspection

1. The Remedial Action Contractor's Safety and Health personnel will review all documents and drawings to identify potential safety and health conditions prior (In Design Reviews) to preparation of request for proposal documents. This review may include a site walk through with designated individuals.
2. If an unusual or special condition exists pertaining to health, safety, environment, health physics or industrial hygiene it will be documented and special safety precautions or procedures shall be included in the special conditions of the request for proposal.
3. At the discretion of the Project Director, the Operations Manager shall inform the Safety and Health Department of the following:
  - a - Schedule for new work.
  - b - Changes or additions to the existing scope of work.

B. Safety Inspections (M-K Form CAS-21)

1. Safety Department personnel or designated representatives will make regular and continuing inspections of all facilities and operations within the scope of the contract. These inspections will include the facilities and operations of all subcontractors, but do not in any way relieve subcontractors of their responsibility for compliance with the provisions of this program.
2. Daily work area safety and health inspections will be made by Remedial Action Contractor personnel and subcontractor supervision. These daily inspections may include, but are not limited to, the following items:
  - a. Excavation operations and related equipment.
  - b. General order and housekeeping. Check storage of new and waste materials. Keep walkways and traffic areas clear.
  - c. Inspect ladders, stairs, handrails, fences and barricades.
  - d. Scaffolding and platforms-Noting strength of supports. Assure that scaffolds over 6 feet high are protected with standard guardrails and toe boards. All scaffold boards should be checked for defects and equipped with cleats to prevent them from sliding.
  - e. Tools-Checked for burrs, dull points, heads properly fitted on handles, and, if power driven, are in good working order.
  - f. Hoists, hoisting equipment, cranes, and derricks. Note condition of platforms of hoists, cable supports, signal arrangements,





- guarded hoistways, support of sheaves, strength of booms, condition of hoisting cables and guys. Employees will not ride rigging or rigged loads.
- g. Underground areas. Check walls and ceilings for proper support and protection.
  - h. Floors. Note strength and security, guards and hoistways, stairway openings etc.
  - i. Shoring. Note whether excavations, trenches, tunnels, and adjacent buildings are properly shored or sloped. All excavations five feet or more in depth which are not in solid rock or hard shale shall be shored or the earth sloped at proper angle of repose.
  - j. Electrical equipment. Note condition of insulation on conductors, and guarding of live circuits. Assure the use of ground fault circuit interruptors as required and see that they are operable.
  - k. Engines and compressors. Note guarding of moving parts, inspect air line hoses, hose connectors and "dead-man" controls.
  - l. Machines. Note-guarding of gears, belts, pulleys, shafting, and method of oiling and greasing.
  - m. Welding and burning operations. Assure that welders and helpers wear proper personal protective equipment and that welding machines are properly maintained. Check storage and transportation of acetylene and oxygen tanks. Provide welding shields when other personnel are working in the area or shield them from the area. Operators and helpers should know that OXYGEN MUST NOT BE USED IN PLACE OF COMPRESSED AIR, as serious explosions and burns may result.
  - n. Flammable and combustible materials. Inspect work areas for proper placement or storage of flammable and combustible materials. Burning, welding or other fire generating work shall be performed, only after shift inspections are made to assure that no fire hazard is present.
  - o. Fire Protection Devices. Portable fire extinguishers will be inspected with the inspection tag initialed monthly. This is the function of the subcontractor, however, follow-up inspections must be accomplished by the Remedial Action Contractor's personnel.
  - p. Noise. Noise control at the source is required if feasibly possible, but properly fitted ear plugs or muffs must be worn when an employee is exposed to noise levels greater than 85 dba time weighted average (TWA).



- q. Automotive vehicle equipment. Check condition and maintenance of trucks, tractors, and passenger vehicles. Assure that equipment is properly operated about the work area.
- r. General conditions. Assure that personnel protective equipment and clothing is used as required. Check for proper lighting at all points. See that nails are removed or bent over in old forms and lumber, and other physical hazards are controlled.
- s. Check for proper ventilation and dust control.
- t. Sanitation. Assure that toilet facilities are provided and comply with appropriate codes. See that water is provided for washing prior to eating and the area for eating is adequately clean.

C. Enforcement

- 1. Failure of the Remedial Action subcontractor to comply with established safety regulations and procedures and/or conducting activities which are considered unsafe by the remedial action contractor or the Department of Energy shall constitute cause for stoppage of work in accordance with Article GP-35, "Safety and Health" of the General Provisions.
- 2. Safety regulations must be enforced. The worker must be taught safe practices and be required to follow them. Established rules must always be enforced by the supervisor.

The objective of safety regulation enforcement and discipline is to promote accident prevention and improve the safety performance of the workers.



SECTION VI

AUDITS



SECTION VI - AUDITS

A. Corporate

- 1. M-K corporate safety staff will audit the project construction safety and health management program quarterly.

B. UMTRA Project Office

- 1. Will conduct periodic safety and health audits of Remedial Action Subcontractors

C. RAC Informal Audits

- 1. At the regular management safety committee meetings (quarterly) an informal audit of the construction safety and health management program will be held. The purpose of this audit is to identify and correct potential problems before they become serious. Action assignments will be made with completion and follow up dates afixed.

D. RAC Formal Audits

- 1. The Management Safety Committee will conduct formal audits annually.
- 2. The Project Director or his designated alternate shall chair the committee.
- 3. The audit shall assure the program is effective and being properly administered, with corrective measures instigated, when necessary.



SECTION VII

FIRE PREVENTION AND PROTECTION



SECTION VII - FIRE PREVENTION AND PROTECTION

- A. All remedial action contractor and subcontractor employees shall take positive measures to prevent fires within their work areas on the site. There will be in some cases, work sites that have established fire departments nearby for response in case of fire. In these instances, the phone number of the fire department will be posted and notified immediately in case of fire. Notification shall also be made to the on-site remedial action contractor management personnel. The onsite management shall immediately notify the Project Safety Department in Albuquerque, New Mexico.
- B. If the fire results in property damage, notification to the RAC, reporting extent and estimated cost shall be made. An investigation shall be conducted to determine cause with factual information gathered for a formal report to DOE/UMTA Remedial Action Project Office by the remedial action contractor.
- C. Each Remedial Action subcontractor shall maintain a fire prevention and control effort appropriate for the needs of the site. In some cases there may be sufficient cause to require a trained fire brigade. Each Remedial Action subcontractor shall provide proper fire extinguishers, maintain them and train employees on how they are to be used.
- D. Specific Fire Prevention Guidelines
  - 1. Fires, open-flame devices, etc., will not be permitted in or around combustible materials. If it is necessary to have welding operations or open-fire devices in use at hazardous locations, such operations shall be attended, and an approved type of fire extinguisher must be provided in the immediate vicinity. It may be necessary to use fire resistant blankets and wet down the area before starting welding operations. An after-shift inspection is to be made to assure that no fire hazards are present.
  - 2. Smoking is prohibited in locations where combustible materials are stored such as paint shops, fuel stations, carpenter shops and other "restricted areas". "No Smoking" signs will be posted in these areas.
  - 3. Flammable and combustible materials will be separately and properly stored.
  - 4. Refueling of equipment while motor is running will be prohibited.
  - 5. All rubbish will be cleaned from work areas daily.
  - 6. Proper safety waste cans shall be provided for disposal of oily rags or other combustible materials. Flammable liquids shall be stored in proper safety cans in work areas.



7. Fire protection equipment will be made available promptly during construction so that in the event of fire it may be controlled immediately.
  8. Good housekeeping practices must be enforced over the entire work area.
  9. Portable heaters must be approved by the remedial action contractor prior to placement for use. Generally such heaters must be UL or FM approved and must be located and used in accordance with applicable fire codes in properly ventilated areas.
- E. Required compliance for use of temporary portable atmospheric pressure fuel tanks on the work sites. (Gasoline, diesel and fuel oil.)
1. Tank Construction and Design
    - a. Metal: UL listed or approved by a recognized agency as a flammable liquid storage tank.
    - b. Tank Size: Minimum 61 gallons - Maximum 600 gallons.
    - c. Vents:
      - (1) At least one vent having a minimum size of 1-1/4 inches inside diameter.
      - (2) Automatic vent shall be set to open at 5 psi and capability of limiting internal tank pressure to 10 psi.
      - (3) Breather vents on Class I liquids (flash point under 100°F) shall be equipped with a flame arrestor.
    - d. Outlet Valves, Nozzles, Hoses:
      - (1) UL listed hose.
      - (2) Automatic self-closing nozzle, UL listed, type that can be padlocked to its hanger to prevent tampering.
      - (3) Bottom draw off gravity flow tank shall be equipped with a valve located on the tank discharge pipe ahead of the hose (preferably fusible link valve).
      - (4) Top dispensing tank shall be equipped with an UL listed antisiphoning pump.
    - e. Grounding and Bonding:
      - (1) Tank shall be grounded by a metallic grounding cable with an electric resistance not to exceed  $10^6$  ohms and be permanently bonded.
    - f. Top dispensing tanks shall be mounted at least 6 inches above ground.





- g. Bottom gravity flow tank support shall be made of steel and maximum height of 7 feet.
- h. Tanks shall be properly labeled to identify its contents.

2. Location and Control of Spills

- a. Tanks shall be located at a minimum of 50 feet distance from any facilities, major equipment, or other hazardous materials.
- b. Minimum clearance of 5 feet between tanks.
- c. Ground shall be sloped away from exposures.
- d. Diking
  - (1) Capacity of diked area shall not be less than the capacity of the largest tank.
  - (2) Minimum distance between tank and toe of dike shall be 5 feet.
  - (3) Storage of combustible materials, empty or full drums or barrels, in diked area is prohibited.
- e. Weeds and other debris shall be kept a minimum of 20 feet from storage area.
- f. Collision protection shall be provided where needed.
- g. The fuel tanks may not be located under power lines.
- h. Electrical equipment within 20 feet of dispensing location shall be rated for Class I, Group D locations.

3. General

- a. No smoking signs displayed in area.
- b. 20 lb. BC fire extinguisher minimum, provided within 50 feet, but not closer than 20 feet of the storage tank, protected from weather, mounted and labeled.



SECTION VIII

FIRST AID AND MEDICAL PROGRAM



SECTION VIII - FIRST AID AND MEDICAL

A. General Requirements

1. The subcontractor shall provide or arrange for adequate facilities and qualified personnel to insure prompt and efficient first aid medical care and emergency transportation of injured or sick employees.
2. The first aid and medical services and supplies shall conform with the good practice standards of the American Medical Association.
3. The following guidelines for on-site first aid or medical facilities, personnel, and first aid supplies shall be complied with:

<u>Number of Employees Per Shift</u>	<u>Facility/Supplies</u>	<u>Personnel</u>
Less than 100	16-unit first aid kit for each 25 employees	Supervisors trained in first aid
100 to 300	First aid station	First aid attendant
300 to 1,000	First aid station or infirmary	First aid attendant or nurse and part-time physician
Over 1,000	Infirmary	Nurse and full-time Physician

B. First Aid and Medical Facilities

1. First aid stations or infirmaries will be established to comply with the requirements of the project. Governing factors are: number of employees, type of work and hazards involved, contract stipulations, federal, state, and local regulations, with extensive consideration of other medical care emergency facilities readily accessible and available to the work site.

2. First Aid Station

- a. First aid stations should provide a minimum of 100 square feet of floor space with provisions for adequate light, heat, water and ventilation. Walls and ceilings should be finished with the equivalent of two coats of white paint and the floor should be constructed of impervious material.
- b. The feasibility of using fully equipped trailers should be examined for sites requiring first aid stations.



3. Infirmary

- a. Infirmaries should provide reasonable quiet, privacy, air conditioning, light, heat, adequate toilet facilities, hot and cold water, and electric outlets. Windows and doors should be screened. Walls and ceilings should be finished with the equivalent of two coats of white paint and the floor should be constructed of impervious material.

4. Medical Facilities Off Site

- a. Advance arrangements to utilize nearby hospitals, clinics, or other medical facilities and the services of professional medical personnel must be made prior to commencement of work.

C. Communication and Transportation

- 1. When required, as specified in the special conditions, a standby automotive unit shall be provided for ambulance service. This unit should be properly equipped to accommodate a stretcher and allow for prompt, comfortable transportation of personnel to medical or hospital facilities.
- 2. Advance arrangements to utilize local ambulance services in time of an emergency should be made.
- 3. The emergency telephone numbers for the local hospitals, ambulances, fire and police departments must be conspicuously posted around the job site on the orange colored posters available through the Safety Department of the Remedial Action Contractor.

D. Personnel Qualifications

- 1. Physicians. Full or part-time physicians shall be fully licensed and possess the proper credentials as required by the American Medical Association.
- 2. Nurses. Nurses shall be registered and fully qualified to provide emergency first aid to injured employees.
- 3. First Aid Supervisors and First Aid Attendants. First aid supervisors and first aid attendants shall hold a current certificate in first aid issued by the American Red Cross, Mine Enforcement and Safety Administration or an equivalent certification.
- 4. Supervisors and Other Employees.
  - a. Each shift must have at least one supervisor holding a current first aid certificate.
  - b. All project management is encouraged to have every foreman or supervisor qualified for first aid certificates.



- c. There shall be at least one person with a valid certificate in first aid training at any site location with difficult access or where professional medical treatment is not readily available.

E. First Aid Kits

1. First aid kits shall conform to Red Cross or Bureau of Mine standards and shall consist of a weatherproof container with individually sealed packages for each type of unit.
2. First aid kits shall be fully equipped before being sent out on each job site and should be checked weekly to ensure that the expended items are replaced.

F. Emergency Lighting

1. Emergency lighting should be provided for all first aid stations and infirmaries.

G. Signs and Directional Markings

1. Adequate identification and directional markers shall be provided to readily denote location of all work site first aid stations and infirmaries.

H. First Aid and Medical Records

1. See Sections IX and X of this program.

I. Health Physics

1. Although significant levels of contamination on workers are not expected, special care will be taken when cleaning superficial cuts and abrasions. Health Physics personnel shall be notified to assist in monitoring for radioactive material if worker was injured within radiation control areas.
2. Medical emergencies involving life-threatening circumstances will be reasonable cause for waiving the contamination monitoring procedures at the access control point. If practical, a health physicist will accompany the injured person and will perform a contamination survey using a portable monitoring instrument, while in transit to the medical facility. Life-saving procedures will take precedence over the monitoring.



SECTION IX

REMEDIAL ACTION CONTRACTOR RECORDS AND REPORTS



SECTION IX - REMEDIAL ACTION CONTRACTOR RECORDS & REPORTS

A. General

1. Purpose

The Remedial Action Safety Department must have effective means of reporting and recording data. This is necessary to accurately document, report, record and analyze data on accidents, safety hazards, safety education, safety performance, and many other topics. The primary reasons for this documentation are as follows:

- a. 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.
- b. By accurately recording accidents and their causes, it allows steps to be taken to remove the causes and eliminate future accidents, thus making the project a safe place to work.
- c. It leads the way to better safety and fewer accidents which reduces the costs of workers compensation, public liability insurance, and property damage and also results in increased production.
- d. It provides safety research data which can be used to develop programs to control or eliminate specific safety and health hazards and to improve work methods.
- e. It gives management the tools it needs to effectively educate employees in accident prevention, to reward employees for good safety performance and to correct them when they demonstrate unsafe practices.
- f. Finally, it provides data which is needed to prepare reports required by client and/or local, state, and federal regulations.

B. Project Records and Reports (Description-Instructions)

1. Employers First Report of Injury

- a. This form is prescribed by law, and used to report injuries and illnesses.
- b. This report must be completed in all cases of accidental death or serious injury on any work site
- c. This form will be furnished by the claims office of the insurance carrier or by the applicable state's worker compensation agency.
- d. Unless otherwise required, the normal distribution will be:

Original/1 Copy - Insurance Carrier  
 1 Copy - Director of Safety in Boise





- 1 Copy - Project File
- 1 Copy - DOE-UMTA Remedial Action Project Office

\*In monopolistic states:

- Original - State Agency
- 1 Copy - Director of Safety in Boise
- 1 Copy - Project File
- 1 Copy - DOE-UMTA Remedial Action Project Office

e. Instructions

- (1) This report shall be completed and distributed as soon as possible but in no case to exceed 72 hours from the occurrence. It should be noted that financial penalties may be assessed by states or federal agencies for delayed reports.
- (2) Be complete filling all sections. If information is not available or unknown, so state.
- (3) Under questions relating to how the accident occurred, the project statement must be prefixed by the words "the employee alleged" or "the witness states", or similar words followed by the description of the incident.
- (4) Contact the physician to get details of the injury. When referring to the parts of the body affected, include enough detail to clarify the area injured and the type of injury.

f. Sample Form. A sample copy of the State of Idaho Notice of Injury and Claim for Benefits form is attached in Appendix A. These forms differ from state-to-state but the contents and data required are basically the same.

2. IBM Injury Tabulation Card (M-K Form CAS-6/2 and CAS-6/1)

- a. This MK form card, covering M-K employees only, is required in reporting injuries resulting in medical attention by a physician or at a hospital whether or not loss of time results. (M-K Form CAS-6/2)
- b. The original will be sent by MK to the MK Corporate Safety Department with a copy to the project files. These cards provide a project file of injuries and Corporate Safety Department computer input.
- c. All sections must be completed. Sections 1 through 5 on the right-hand side must have the appropriate designations clearly circled in ink.
- d. It is essential to record the appropriate names of supervision directly in charge of the injured employee as this information determines eligibility for safety awards.

\*A state workmans compensation insurance program only.



- e. The blue card, M-K Form CAS-6/1, will be submitted for corrections or adjustments, such as type of disability, or actual days lost. The purpose is to compile accurate data for input in the Corporate Safety Department. If necessary, record explanatory or descriptive remarks on the back of the card.

3. Log of Occupational Injuries and Illnesses (OSHA Form No. 200)

- a. All recordable occupational injuries and illnesses, other than first aid cases, as required by regulations issued under the Occupational Safety and Health Act of 1970 shall be recorded on this form.
- b. Occupational injuries and illnesses must be recorded within 48 hours of receiving information that a recordable case has occurred.
- c. The OSHA Log, Form No. 200, must be maintained continuously through the calendar year. Within ten (10) days of the year closing, the original must be sent to the Corporate Safety Department and a copy retained in the project safety files.
- d. Instructions on completing the log, and when to post the summary portion, are on the back of the form. It is important to be accurate, complete, and prompt, fulfilling all requirements on this form as the information will be used by the Corporate Safety Department to prepare other required federal reports.

4. Report of Occupational Injury/Illness, Property Damage or Motor Vehicle Accident (DOE Form F 5484.X)

- a. For all occupational injuries or illnesses determined to be recordable on the OSHA Log Form No. 200, DOE Form F5484X, shall be prepared. This form is transmitted in duplicate to the Project Manager, U.S. Department of Energy UMTRAP office, Albuquerque, New Mexico.
- b. Fire, explosions, and other property damage involving losses of \$1,000 or more will require preparation of DOE Form F5484X, which will be transmitted, in duplicate, to the Project Manager, U.S. Department of Energy UMTRAP office, Albuquerque, New Mexico.
- c. Any vehicle accident experience involving Government motor vehicles with \$250 or more in damages, will require preparation of DOE Form F5484X, which will be transmitted, in duplicate, to the Project Manager, U.S. Department of Energy UMTRAP office, Albuquerque, New Mexico.
- d. When an accident occurs involving a company owned vehicle, standard forms provided by the insurance carrier, will be



completed and turned into the RAC Construction Health and Safety Manager within 72 hours.

5. Quarterly Tabulation of Vehicle Usage, Work Hours, Tort Claims and Property Valuation DOE Form F5484.Y

a. The DOE Form F5484Y will be prepared per instructions and transmitted, in duplicate, to the Project Manager, U.S. Department of Energy UMTRAP office, Albuquerque, New Mexico.

b. Two reports are required as follows:

- (1) The first is a tabulation of the Remedial Action Contractor.
- (2) The second is a tabulation summary of all subcontractors.

c. These reports will be prepared quarterly and must reach the U.S. Department of Energy UMTRAP office no later than the 15th of the month following the end of each calendar quarter.

6. Notifications

a. The Remedial Action Contractor's Safety Department will notify the UMTRAP Project Manager, who in turn shall notify the DOE Operational Safety Division (OSD), of any fatality or serious accidents as required in DOE and AL Orders 5484.1A, reference: "Environmental Protection, Safety, Health Protection Information Reporting Requirements". Fatal accidents will be investigated by the state, federal, or local office having Environment Safety and Health (ES&H) jurisdiction.

7. Formal Accident Investigation and Followup Reports (M-K Form Cas-9)

a. A formal accident investigation is required for occupational fatalities or other serious accidents. "The extent of all other accident investigations will be" determined by the Construction Safety and Health Manager.

b. The initial investigation report will be prepared promptly using the formal accident investigation packet - M-K Form CAS-9.

c. The normal distribution for the investigative report will be as follows: the original to the MK Corporate Director of Safety (or designated representative), one copy to the Division Manager, and one copy retained in the Project Safety Department files. This report shall not be released to any person or authority outside the company unless approved by the Corporate Director of Safety.

d. Follow-up reports will be submitted periodically as additional data is gathered. As each case is closed, a final report is required to maintain a complete and accurate file on each case.



8. Supervisors Accident Investigation Report (M-K CAS-24)

- a. This report is mandatory for all lost time cases and fatalities. It will also be used for recordable cases and near misses.
- b. It will then be submitted to the Project Safety Department and in turn submitted to the Corporate Safety Department with the first reports of injury. A copy will also be retained in the project safety files.

9. Posting

- a. The OSHA Form No. 2203, "Occupational Safety and Health Protection", will be posted at the work site.
- b. The DOE Form EV-627 or 627S, "Occupational Safety and Health Protection", will be posted at the work site.
- c. A copy of the OSHA Log Form No. 200 will be posted for 30 days after the calendar year end, between February 1st and March 1st, at the work site.
- d. The above forms and posters are available from the RAC Safety Department.

10. Emergency Poster (M-K Form CAS-22)

- a. The "Emergency Phone Number" poster, M-K Form CAS-24, provides a ready reference to telephone numbers which are needed in an emergency. It should be noted that this poster is mandatory under OSHA law. It shall be visibly posted near a telephone.

11. Safety Award Application M-K Form CAS-10 (M-K Employees Only)

- a. This application card is used by qualified employees for submittal for safety awards they have earned through maintaining a no lost time injury record.
- b. The safety award program contains complete details for filling out this application and may be found in Section 8 of the Accident Prevention Manual.

12. Inspection and Enforcement Records (M-K Form CAS-21)

- a. Work site inspection records will be maintained, with subcontractors abatement actions recorded.
- b. These records will be available for review by DOE UMTRA project personnel or their authorized representatives.



13. Employee Complaints

- a. If formal employee safety and health complaints are submitted to the Remedial Action Contractor by the DOE UMTRA project office, immediate corrective action will be taken on valid complaints.
- b. A formal response document, listing corrective actions, will be transmitted to the DOE UMTRA project office in a timely manner.
- c. The records will be available for employee or their designated representatives review.

14. Unusual Occurrence Reporting

- a. The Remedial Action Contractor is required to notify the UMTRA Project Manager of any unusual occurrence.
- b. An unusual occurrence is any unusual or unplanned event having programmatic significance such that it adversely affects or potentially affects the integrity of the site or the performance, reliability, or safety of the UMTRA Project.
- c. It is not the intent of this requirement to follow DOE Order 5484.2 verbatim, but to require notification of occurrences similar to the following.
  - (1) Any substantial degradation of a barrier designed to contain radioactive or toxic material or any substantial release of radioactive or toxic material past this barrier (e.g., overflow of water treatment pond, tailings release into a stream or river, tailings released beyond site boundary).
  - (2) Loss of control of radioactive material (e.g., spill associated with a truck or train accident).
  - (3) Accidents involving the transport of radioactive or toxic materials.
  - (4) Any fire or explosion which affects the integrity of the site or project.
  - (5) Any condition resulting from natural events or man-made activities which substantially affects or threatens performance, reliability or safe operation (e.g., site flooding, wind damage, soil stability problems, personnel operation errors which create hazardous conditions).
  - (6) Any incidence of breach of access control by unauthorized personnel.
  - (7) Any acts of vandalism or major theft occurring at a site.
- d. Reports of unusual occurrence should be made according to the format in DOE Order 5484.2 Attachment 2, 8-13-81. Refer to the sample copy, Attachment 2, in Appendix A of this program.



SECTION X

SUBCONTRACTOR RECORDS AND REPORTS





SECTION X - SUBCONTRACTORS RECORDS AND REPORTS

A. General

1. Purpose

In accepting a construction contract a subcontractor accepts the requirements to maintain records and submit reports. Primary reasons for this documentation are as follows:

- a. Allowance for improvement in accident prevention which in turn reduces the number and degree of occupational injuries and illnesses. The net result is less human suffering and tragedy.
- b. By accurately recording accidents and their causes, steps may be taken to remove the causes thus eliminating future accidents, and creating a safe place to work.
- c. A better safety attitude is created with the net result being fewer accidents, reduced cost of worker's compensation, public liability insurance, property damage and increased productivity.
- d. Management is given the tools needed to effectively evaluate their employees in accident prevention, and also to reward employees for good safety performance and to implement corrective measures when employees demonstrate unsafe practices.
- e. Finally, data is provided for report preparation required by the Remedial Action Contractor and/or local, state, and federal regulations.

B. Project Records and Reports (Description and Instructions)

1. Employers First Report of Injury

- a. A form prescribed by state worker's compensation law, used to report occupational injuries and illnesses.
- b. In all cases of accidental death or serious injury, requiring more than work site first aid, this form must be completed.
- c. The form is furnished by the claims office of the worker's compensation insurance carrier or by the State Worker's Compensation Agency. (Refer to Appendix A of this program for a sample of the Idaho form.)
- d. Unless otherwise stipulated by the respective state, normal distribution will be:

- (1) Original/1 Copy - Insurance Carrier
- 1 Copy - Remedial Action Contractor
- Safety Dept. (Albuquerque)





- 1 Copy - Originators (Subcontractor) File
- (2) In monopo. stic states:
  - Original - State Agency
  - 1 Copy - Remedial Action Contractor Safety Dept. (Albuquerque)
  - 1 Copy - Originators (Subcontractor) File

e. Instructions

- (1) This report shall be completed and distributed as soon as possible but in no case to exceed 72 hours from time of incident. It should be noted that financial penalties may be assessed by state or federal agencies for delayed reports.
- (2) All sections must be completed. If information is not available or unknown, so state.
- (3) Under questions relating to how the accident occurred, the project statement must be prefixed by the words "The employee alleged" or "the witness stated", or similar words followed by the description of the incident.
- (4) Contact the physician to get details of the injury. When referring to the parts of the body affected, include enough detail to clarify the area injured and the type of injury.

f. Sample Form

A sample copy of the State of Idaho Notice of Injury and Claim for Benefits form (First Report of Injury) is attached in Appendix A. These forms differ from state-to-state but the contents and data required are basically the same.

2. Daily First Aid Treatment Record (M-K Form CAS-8)

- a. This form will be used to record all injuries or illnesses. It is the responsibility of the subcontractor to set up and maintain.
- b. As a minimum, all first aid cases treated by the project medical personnel, supervisors, safety supervisors, local physicians or hospitals will be entered in detail on this record. "Minor" treatment for scratches, cuts, etc., should receive the same recording attention as cases of increased severity.
- c. An entry will be made for each calendar day. If no cases are reported or the project does not operate on any one day, such information will be noted on the record for that day. One sheet may be used for entries covering several days.
- d. The data at the top of the log relating to contract number, location, dates covered and sheet number must be accurately completed.



- e. Entries must be legible by printing in ink or typewritten. The person rendering first aid or making the entry must initial or sign such entry.
- f. This form is not a substitute for the OSHA Log No. 200, but a method of informational reporting for the Remedial Action Contractor to progressively use in safety performance evaluation.
- g. The original form will be mailed to the Remedial Action Contractor's Safety and Health Department in Albuquerque, New Mexico, within five (5) days after the close of each monthly reporting period with a copy retained in the prime subcontractors file at the work site.
- h. Refer to Appendix A of this program for a sample copy of M-K Form CAS-8. These forms are available from the Remedial Action Contractor Safety Department.

3. Log of Occupational Injuries and Illnesses (OSHA Form No. 200)

- a. All recordable occupational injuries and illnesses, other than first aid cases, as required by regulations, issued under the Occupational Safety and Health Act of 1970 shall be recorded on this form.
- b. Occupational injuries and illnesses must be recorded within 48 hours of receiving information that a recordable case has occurred.
- c. The OSHA Log, Form No. 200, shall be maintained continuously through the calendar year. It must be at the work site, readily available for review upon request by anyone with jurisdictional authority.
- d. Instructions on completing the log, and posting of the summary portion, are on the back of the form. It is important to be accurate, complete and prompt in filling out the form as the information may be used to prepare other required federal reports.
- e. Refer to Appendix A of this program for a sample copy of OSHA Log Form No. 200. The forms are available from the Remedial Action Contractor's Safety Department in Albuquerque, New Mexico.

4. Report of Occupational Injury/Illness, Property Damage or Motor Vehicle Accident (DOE Form F5484X)

- a. For all occupational injuries or illnesses determined to be recordable, on the OSHA Log Form No. 200, there shall be prepared a DOE Form F5484X, then transmitted, in duplicate, to the Remedial Action Contractor Construction Safety and Health Manager in Albuquerque, New Mexico. The submittal must be as soon as possible but not to exceed 72 hours from time of incident.



- b. Fire, explosion, and any other property damage involving \$1,000 dollars or more will require preparation of DOE Form F5484X, which must be transmitted, in duplicate, to the Remedial Action Contractor Construction Safety and Health Manager in Albuquerque, New Mexico. The submittal must be as soon as possible but not to exceed 72 hours from time of incident.
  - c. Any vehicle accident experience involving government motor vehicles with \$250 dollars or more in damages will require preparation of DOE Form F5484X, which will be transmitted, in duplicate, to the Remedial Action Contractor Construction Safety and Health Manager in Albuquerque, New Mexico. The submittal must be as soon as possible but not to exceed 72 hours from time of incident.
  - d. Refer to Appendix A of this program for a sample copy of the form. The forms are available from the Remedial Action Contractor's Safety and Health Department in Albuquerque, New Mexico.
5. Quarterly Tabulation of Vehicle Usage, Work Hours, Tort Claims and Property Valuation (DOE Form 5484Y)
- a. DOE Form F5484Y shall be prepared per instructions on the back of the form then transmitted, in duplicate, to the Remedial Action Contractor's Subcontract Administrator in Albuquerque, New Mexico.
  - b. This report is required quarterly and must reach the Subcontract Administrator no later than the 10th of the month following the end of each calendar quarter.
  - c. Refer to Appendix A of this program for a sample copy of the form. These forms are available from the Remedial Action Contractor's Subcontract Administrator or the Construction Safety and Health Manager in Albuquerque, New Mexico.

6. Notifications

- a. The subcontractor will report to the Remedial Action Contractor all occupational accidents or illnesses immediately.
- b. The accident site will be left "as is," until the Remedial Action Contractor's Construction Safety and Health Manager determines the extent of the investigation required.
- c. If fatality occurs, a formal investigation will be conducted by the Remedial Action Contractor's Construction Safety and Health Manager. There will also be an investigation by the state, federal or local agency having environment, safety and health jurisdiction.



7. Formal Accident Investigation

- a. Formal accident investigations are conducted by the Remedial Action Contractor's Safety Department.
- b. All subcontractors will cooperate fully with this investigation.
- c. The subcontractor will be notified if a formal investigation is to be conducted after the Remedial Action Contractor's Safety Department is notified of an accident.

8. Supervisors Accident Investigation Report (M-K Form CAS-24)

- a. This report is mandatory for all lost work day cases and fatalities. It will also be required for recordable cases and near misses.
- b. It must be transmitted to the Remedial Action Contractor's Safety Department in Albuquerque, New Mexico, as soon as possible but not to exceed 72 hours.
- c. The forms are available from the Remedial Action Contractor's Safety Department in Albuquerque, New Mexico. Refer to Appendix A of this program for a sample of the form.

9. Posting

- a. The OSHA Form No. 2203, "Occupational Safety and Health Protection", will be posted at the work site.
- b. The DOE Form EV-627 or 627S, "Occupational Safety and Health Protection", will be posted at the work site.
- c. A copy of OSHA Log Form No. 200, will be posted for 30 days following the calendar year end between February 1st and March 1st, at the work site.

10. Emergency Poster (M-K Form CAS-22)

- a. The "Emergency Phone Number" poster, provides a ready reference to telephone numbers which are needed in an emergency. It should be noted that this poster is mandatory under OSHA law. It will be posted near all telephones on site. If a phone is not available, the subcontractor must provide other means of communication, such as a radio.
- b. Refer to Appendix A of this program for a sample copy of the form. The forms are available from the Remedial Action Contractor's Safety Department in Albuquerque, New Mexico.



11. Unusual Occurrence Reporting

- a. The subcontractor is required to report immediately to the Remedial Action Contractor's Safety and Health Department, any unusual occurrence that has or is taking place at the work site.
- b. "An unusual occurrence is any unusual or unplanned event having programmatic significance such that it adversely affects or potentially affects the integrity of the site or the performance, reliability, or safety of the UMTRA Project."
- c. The following are examples of occurrences that must be reported.
  - (1) "Any substantial degradation of a barrier designed to contain radioactive or toxic material or any substantial release of radioactive or toxic material past this barrier (e.g., overflow of water treatment pond, tailings release into a stream or river, tailings released beyond site boundary)."
  - (2) "Loss of control of radioactive material (e.g., spill associated with a truck or train accident)."
  - (3) "Accidents involving the transport of radioactive or toxic materials."
  - (4) "Any fire or explosion which affects the integrity of the site or project."
  - (5) "Any condition resulting from natural events or man-made activities which substantially affects or threatens performance, reliability or safe operation (e.g., site flooding, wind damage, soil stability problems, personnel operation errors which create hazardous conditions)."
  - (6) "Any incidence of breach of access control by unauthorized personnel."
  - (7) "Any acts of vandalism or major theft occurring at a site."



SECTION XI

EMERGENCY ACTION





SECTION XI - EMERGENCY ACTION

A. Severe Weather

1. There is a potential for dispersion of contaminated materials through wind or water erosion.
2. Under direction of the site manager and the Radiation Safety Officer, contamination controls shall be implemented in preparing the work site for severe weather as time permits. If sufficient time is not available to prepare the site for severe weather, radiological contamination controls become secondary to preparation for personnel and equipment safety.
3. Post-severe weather clean-up action warrants priority over remedial action, depending on the amount and level of radioactive contaminates material that migrated offsite during severe weather conditions.

B. Contaminated Materials Spill in Transit

1. An accident could occur with a truck or train causing a spill over public thorough fares.
2. Response to a truck or train spill.
  - a. The MK site manager and the Radiation Safety Officer at each site shall be responsible for implementation of an accidental spill response procedure based on local conditions and available personnel. The response shall, at least, include the following:
    - (1) Notify the MK site manager or his designee, and the site Radiation Safety Officer or his designee, immediately upon occurrence of any offsite spill.
    - (2) Mobilization of sufficient personnel and equipment to clean up the spill quickly with a minimum of radiological exposure to workers or the general public. The site Radiation Safety Officer shall supervise offsite spill response and health physics activities, to ensure minimization of exposures.
    - (3) Immediate notification of offsite authorities, including local police, fire and civil authorities as necessary. Notification shall include the following information: The Radiation Safety Officers initial estimate as to its radiological significance, given the quantity, radioactivity and, location involved, and whether the problem is of sufficient magnitude to require special assistance from local police, fire or other agencies. Frequent communication with local authorities shall be maintained to ensure that complete and correct information is reaching the general public, and that no unnecessary actions on the part of local authorities are initiated.





(4) Notify the MK office in Albuquerque, New Mexico as soon as feasible, detailing spill magnitude, location, spill response procedures being implemented, and a summarization of communications and assistance from local authorities.

C. Evacuation From Work Site

1. If work site evacuation is necessary, notification will verbally be given by site management supervision to all personnel.
2. The staging area will be immediately outside of the access control point.
3. Evacuation shall be rapid therefore radiation control monitoring will be minimal at the access control point. If there is a life-threatening situation evacuation shall take precedence over monitoring.
4. All supervisors and foreman will report accountability of personnel to the site manager or the site project engineer.



SECTION XII

SAFETY AND HEALTH TRAINING PROGRAM



SECTION XII - SAFETY AND HEALTH TRAINING PROGRAM

A. General

1. Purpose

The purpose for implementing a training program is to provide instruction to each employee to include the recognition and avoidance of unsafe acts and conditions applicable to the work environment. It is also designed to assist subcontractor supervision in instructing each employee to recognize regulations established to control or eliminate hazards or other exposure to illness or injury.

2. Responsibilities

Construction safety and health training is an inherent responsibility of direct line supervision. Management for the Remedial Action Contractor and the subcontractor, must monitor line supervisors training activities to ensure compliance with the purpose of training.

B. Construction Safety and Health Training Requirements

1. Initial Indoctrination

- a. Each employee shall be given an initial indoctrination by a Remedial Action Contractor designated person at the work site. It may be oral or written and must take place before the employee may start work on the site.
- b. As a minimum the indoctrination will include the following:
  - (1) Remedial Action Contractor safety policy
  - (2) Required subcontractor safety policy
  - (3) Emergency action program
  - (4) Reporting injury requirement
  - (5) First aid and medical available
  - (6) Employee responsibilities for safe work practices and maintenance of safe working conditions
  - (7) Procedure for employee safety complaints

2. Subcontractor Employee Training

- a. The subcontractor supervisor or foreman will instruct each worker in a group or individually as to the nature of the work to which he or she will be assigned. The hazards on the job, the personal protective equipment which will be required, the safety rules under which the worker will work and the penalties for failure to observe these rules will all also be explained. Each employee will be advised of the requirements for fire protection and special precautions to be taken if the work requires the use of flammable liquids, toxic materials, or other harmful substances. The electrical hazards, if any, will be emphasized.



- b. When a new employee has been through preliminary training, if possible, he or she should be assigned to work with a site experienced person.
- c. All subcontractor management, supervisors, and foreman must be familiar with and understand the construction safety and health management program.
- d. Weekly safety training meetings shall be conducted by subcontractor supervisors or foreman. Attendance is mandatory for all subcontractor employees at the work site. These meetings provide an opportunity to point out any hazardous or unhealthy conditions or unsafe work practices, that have been noticed. In addition, safety rules and regulations, safe working procedures, analysis of accidents and potential hazards will be discussed. A record of these meetings shall be maintained on M-K Form CAS-11 and shall include topics discussed, the names of employees in attendance, and the signature of the supervisor or foreman conducting the meeting. The original form will be transmitted to the Remedial Action Contractors Safety Department in Albuquerque, New Mexico. Refer to Appendix A of this program for a sample copy of this form.

c. Radiation Worker Training

Each person expected to work 40 hours over a 3 month period in an access controlled area will be required to complete an approved radiation worker training program. At a minimum, the training program will include a 2 hour lecture-discussion of the following:

- o Radiation and contamination
- o Units - activity, exposure, dose
- o Protection against radiation & contamination
- o Biological effects
- o Personnel monitoring
- o Dose limits
- o Records

An exam following the lecture will be required for all subcontractor personnel.

In addition to the above requirements, a two hour practical applications demonstration/training session will also be required.



This session will include exercises including but not limited to the following:

- o Frisking techniques
- o Personnel monitoring
- o Use of protective clothing



SECTION XIII

RADIOLOGICAL CONTROL AND MONITORING



SECTION XIII - RADIOLOGICAL CONTROL & MONITORING

- A. Radiological control and monitoring involve those measurements, surveys, samples and procedures used to track and control radioactive exposures and contamination. Use of protective clothing and other worker protective devices will be described with practical application methods demonstrated in Radiation Worker Training.
  - 1. Area and/or B- surveys and air samples will be required in all work areas. These measurements will ensure that worker exposures are kept as far below the federal, state, and local limits as reasonable (ALARA).
  - 2. Bioassay urine samples will be required of all subcontractor personnel potentially exposed to significant levels of airborne radionuclides as indicated by Health Physics atmospheric sampling and as defined in the RAC "Health Physics Monitoring Plan." The bioassay samples will be required prior to access on the site and upon termination of either the project or employee.
  - 3. Radon and/or working level monitoring will be required in buildings prior to entry of any subcontractor personnel.
- B. Excavation control monitoring will be required to direct excavation activities. This monitoring allows a quick estimate of the residual radioactivity in the soil and will be required when subcontractors have removed the specified volume of soil.
  - 1. Excavation control monitoring will include, when possible, gamma surveys to indicate Ra-226 in soil concentrations.
  - 2. The monitoring may require a more detailed, slower method of analysis when detection interference from close tailings piles or other sources of radiation are present. This method will involve soil sampling and determination of concentration by gamma counting techniques.
  - 3. This monitoring and evaluation will be required for grid areas of 100 m<sup>2</sup> or the bottom of the excavation area, whichever is smaller.
- C. Radiological control and monitoring will take precedence over construction activities to ensure the health and safety of the subcontractor personnel and general public.
- D. Whenever a question arises about radiological health and safety, the appropriately designated (subcontractor) foreman or supervisor should consult with the site Radiation Safety Officer (RSO) or Health Physics Supervisor (HPS).
- E. Any unusual spills, discharges or releases of material outside the restricted area will require radiological monitoring coordinated by the site RSO.





SECTION XIV

ENVIRONMENTAL CONTROL AND MONITORING



SECTION XIV - ENVIRONMENTAL CONTROL & MONITORING

- A. Environmental control and monitoring are required to ensure that radioactive contamination, industrial toxics, or other hazardous materials do not disperse, by wind or water, into the general environment of the site.
  - 1. Boundary dust collection disks and continuous air monitors will be an integral part of the RAC environmental control program. The dust collection disks will be monitored on a daily basis to track radioactive dust dispersion. Continuous air monitors will give monthly, quarterly, and annual results to monitor off-site dispersion of particulates. The RAC Environmental Assessment Manager will determine when particulates will be analyzed for gross alpha, or when isotopic and elemental analysis is necessary.
  - 2. In the event that either of the above control monitors indicate an increase approaching unacceptable levels of radioactivity subcontractors may be required to take the following action: reduce vehicle speeds, water dusty construction areas, and/or stop work for extreme weather conditions. The site RSO in conjunction with the site manager will determine when these measures will be necessary.
  - 3. Water monitoring is also required to ensure no significant degradation of potable water supplies during remedial action. Construction activities may require modification in the event that a contamination problem is indicated.
- B. Noncompliance with the above requests will be resolved through the RAC-Albuquerque Project Office.



SECTION XV  
ACCESS CONTROL



SECTION XV - ACCESS CONTROL

- A. Access control measures will be required in areas which have the potential for continuous occupancy and which exceed 60 R/hr average -ray exposure rate. Also, rooms or areas where more than 1000 kg of tailings material have been stored are to be considered for access control measures.
1. Access to areas with 226 Ra concentrations in excess of 200 pCi/g will be controlled by fencing or roping with the appropriate labels on the boundary. Subcontractor personnel shall not cross controlled area ropes and/or fences without going through the access control point, and checking with the Access Control Technician.
  2. Monitoring of equipment, vehicles and personnel is performed by RAC personnel which is required when leaving an access control point.
  3. - and or Alpha surveys will be required on all personnel, vehicles, and equipment. One or more swipe surveys may also be required. These surveys may be detailed and extensive if excess contamination levels are found. In this event decontamination procedures may be required.
  4. A record of minimal contamination may be interpreted by the site RSO as evidence to reduce the frequency of vehicle/equipment swipe sampling.
- B. Noncompliance with the above measures will be considered evidence for a "cease operation" action. This action will be accomplished through the subcontractor's construction foreman or supervisor.



SECTION XVI  
INDUSTRIAL HYGIENE



SECTION XVI - INDUSTRIAL HYGIENE

A. General

- 1. The remedial action contractor and all subcontractors will comply with all local, state, and federal laws and regulations pertaining to occupational health.
- 2. Specific procedures will be developed and implemented for the control, handling, and disposal of hazardous substances as they are encountered. These shall include monitoring methods, hazard prevention and safe work methods in accordance with DOE, OSHA/federal and state standards, and NIOSH recommended practices..

B. Responsibility

- 1. The project subcontractor has direct responsibility to eliminate or reduce occupational illnesses among their employees.
- 2. The remedial action contractor will assist by the identification of occupational health hazards and development of a monitoring and control measures program.

C. Occupational Health Hazards (Types)

1. Noise Exposure

- a. Loud, prolonged noise can cause loss of hearing, pain, nausea, and reduced muscular control. In addition, it interferes with communications, disrupts concentration, and is annoying to all employees within range.
- b. Maximum noise level limits for various lengths of exposure have been set by the U. S. Department of Labor. In general, anything above 85 decibels (dB) measured on the A scale of a sound level meter is considered dangerous under specified conditions.
- c. The limit for impulsive or impact noise (the variations in noise level involve maxima at intervals over 1 second) has been set at 140 dB peak sound pressure level for not over 100 impulses or impacts per 8 hour work shift.
- d. A Hearing Conservation Program shall be conducted as required in OSHA 1926.101 and 1926.52. Employees shall receive proper protective equipment and training.

2. Ionizing Radiation

- a. There are five different types of ionizing radiations: alpha, beta, x-ray, gamma, and neutrons. All types can damage living tissue if over-exposure occurs.



- b. Control and training will be handled by the health physics personnel working full time on this project. Per Section XII

3. Nonionizing Radiation

- a. Radio, microwave, radar, infrared, visible light, and ultraviolet are all considered nonionizing radiation. Sunshine, electric arc welding, and laser work will be the most common sources of nonionizing radiation at most work sites.
- b. Ultraviolet radiation from the sun can cause sunburn and severe damage to the eyes without warning. The damage often does not show up until four to six hours after exposure. Electric welding arcs will do similar damage to the eye, causing flash burns.
- c. Lasers are all considered potential eye hazards because they produce an extremely high intensity light in a narrow beam. If the eye is exposed to a laser beam, retinal damage can occur.

4. Extreme Pressure

- a. Working under greater than atmospheric pressure for prolonged periods of time can be hazardous and even fatal.
- b. Divers and employees working in compressed air tunnels or caissons may experience pain and discomfort and are subject to caisson's disease or the bends if decompression is done improperly.

5. Extreme Temperature

- a. Heatstroke, heat cramps, or heat exhaustion may result from working in environments where employees are exposed to excessive heat.
- b. Heatstroke occurs when the body is unable to cool itself sufficiently and can lead to loss of consciousness and possible death.
- c. Heat cramps and heat exhaustion may result from over-exposure to high temperatures or over-exertion in a hot environment.
- d. Excessive heat can cause burns and tissue damage, and excessive cold can result in frostbite and tissue damage.
- e. Extremely low temperatures can cause frostbite, burns, and possibly death. The danger of infection is high for body tissue damaged by freezing.





6. Gases, Vapors, Fumes, Dusts, and Mists

- a. Toxic or irritant gases, vapors, fumes, dusts, or mists can attack the human body in three primary ways.
  - (1) Through inhalation into the lungs.
  - (2) Through ingestion into the stomach.
  - (3) Through skin absorption.
  
- b. In the case of dust, mist, and fume inhalation, the magnitude of the particles is important in determining the degree of potential hazard.
  - (1) Particles longer than five microns in size are usually trapped in the nasal passages, throat, larynx, windpipe, and bronchi (tubes from windpipe leading into lungs), causing local irritation or damaging action.
  - (2) Particles smaller than five microns in size may find their way into the lungs and into the microscopic air cells in the inner recesses of the lungs. These particles may then pass directly into the blood stream and subsequently affect large areas of the body.
  
- c. Certain inert gases and vapors have the capability of displacing oxygen and causing asphyxiation. Some typical examples are: acetylene, nitrogen, propane, helium, methane, argon, and similar gases.
  
- d. The acceptable standards for the maximum exposure to common substances are listed in the current issue of "Threshold Limit Values of Airbourne Contaminants" by the American Conference of Governmental Industrial Hygienists.
  
- e. The acceptable standards for the maximum exposure to unregulated unique substances that may be used or found on the project will be determined by obtaining Manufacturers Material Safety Data Sheets. The MK Industrial Hygienist will be utilized for technical assistance in this category.

7. Solvents

- a. Organic solvents such as naphtha, mineral spirits, gasoline, turpentine, and alcohol are hazardous for two primary reasons:
  - (1) They affect the central nervous system to some extent, acting as depressants and anesthetics. The effects may range from mild unnoticed irritation to narcosis and death from respiratory arrest.
  - (2) All solvents contacting and wetting the skin can cause dermatitis (inflammation of the skin).



- b. Protective measures for controlling solvents include:
  - (1) Proper ventilation of the work area.
  - (2) Proper clothing, including suitable eye protection, aprons, gloves, and boots as required by the individual situation.
  - (3) Skin creams are effective against some solvents.
  - (4) Engineering control of the individual process and possible substitution of one solvent by another of lower toxicity.

D. Occupational Illnesses

- 1. Occupational illness is any abnormal condition or disorder, other than a result of an occupational injury, caused by exposure to environmental factors associated with the work environment.
- 2. There are seven major categories of occupational illnesses as indicated below:
  - a. Occupational Skin Diseases or Disorders. Examples: dermatitis, eczema, or rash caused by irritants such as cement or poisonous plants, oil acne, chemical burns, or inflammations, etc.
  - b. Dust Diseases of the Lungs. Examples: silicosis, asbestosis, coal worker's pneumoconiosis, and other pneumoconioses.
  - c. Respiratory Conditions Due to Toxic Agents. Examples: pneumonitis, pharyngitis, rhinitis, or acute congestion due to chemicals, dusts, gases, or fumes, etc.
  - d. Poisoning. Examples: poisoning by lead, mercury, arsenic, or other metals, by carbon monoxide or other gases, by organic solvents, by insecticide sprays, by chemicals such as resins, etc.
  - e. Disorders Due to Physical Agents. Examples: heatstroke, sunstroke, heat exhaustion, freezing, frostbite, caisson disease, effects of radiation and x-rays, sunburn, flashburn, etc.
  - f. Disorders Due to Repeated Trauma. Examples: hearing loss, swelling of the joints, and other conditions due to repeated motion, vibration, or pressure.
  - g. Other Occupational Illnesses.

E. Occupational Health and Environmental Testing

- 1. The RAC Safety Office has the equipment to check the following environmental conditions:
  - a. Noise
  - b. Available Oxygen



- c. Combustible Gases
  - d. Toxic Gases
  - e. Respirable Dust Sampling
2. The Mk Corporate Safety Department located in the Boise office has the following testing capabilities: available to the RAC Project offices.
- a. Complete noise level surveys and analysis utilizing a Bruel & Kjaer Impulse Sound Level Meter, type 2209, Octave Filter Set, and associated equipment.
  - b. Measurement and analysis of respirable dust samples to determine hazardous dust concentrations. Equipment includes a Muffler Model H-20 Analytical Balance.
  - c. Calibration services for air sampling pumps used in the field for collecting respirable dust samples on filters. A wet test meter is used as a primary standard for these calibration procedures.
  - d. Measurement of illumination intensities to determine lighting requirements.
  - e. Provide the equipment and personnel to quantitatively measure gaseous pollutants such as CO, CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>, flammable and/or explosive vapors and gases and the level of oxygen in confined spaces.

F. General Methods of Controlling Environmental Factors

1. As soon as dangerous environmental hazards are discovered, steps shall be taken to eliminate or control these hazards or stresses. General methods of control taken into consideration include the following:
- a. Substitution of less harmful materials for ones which are dangerous to health.
  - b. Change or alternate the process to minimize worker contact.
  - c. Isolate or enclose the process or work operation to reduce the number of persons exposed.
  - d. Utilize wet methods to reduce dust in excavation and other construction activity.
  - e. Safety measures to remove or disperse the contaminants at their source before they reach the workers.



- f. Ventilate with clean air to provide a safe atmosphere.
- g. Utilize personal protective devices.
- h. Maintain good housekeeping. This includes the cleanliness of the work area, waste disposal, adequate washing, toilet and eating facilities, healthful drinking water, and control of insects and rodents.
- i. Whenever possible, utilize special control methods for specific hazards such as reduction of exposure time, exhaust ventilation, sound shielding, and personal protection equipment.
- j. Continuous or frequent sampling with monitoring devices and medical programs to detect intake of toxic materials.
- k. Medical controls should be used as necessary.
- l. Maintain an adequate training and education program to supplement engineering controls.



SECTION XVII

JOB SAFETY ANALYSIS



SECTION XVII - JOB SAFETY ANALYSIS

A. A job safety analysis will be prepared for work with conditions that potentially have the highest probability for serious or fatal injury. The Remedial Action Contractor Management Safety Committee or the Health Safety and Environment Department will determine when a JSA would be required. The following steps are followed for JSA preparation:

1. Use a prescribed form as shown below.

---

Job Title \_\_\_\_\_

Project Location \_\_\_\_\_ Date Prepared \_\_\_\_\_

What to Do	How to do it	Key Points
------------	--------------	------------

2. Select the job to be analyzed keeping in mind a need for sufficient time to adequately document and conduct internal review.
3. Solicit personnel within project management having practical construction experience to break the job down in successive steps and list under What to Do. Number each step. Begin each step with an action word such as remove, open, etc. Keep the number of steps to as few as possible since people retain six to eight steps.
4. Study steps for hazards. Write down instructions for each step under How to do it.
5. Under Key Points, list items to be emphasized. Stress Safety. The objective to eliminate hazards and prevent occurrences of potential accidents is the sole purpose for JSA.
6. Finally, check the job with the personnel who will perform actual work and with the Supervisor. Make certain all agree on the steps.

B. Responsibility

1. The Remedial Action Contractor's Management Safety Committee and Health Safety and Environment Department will develop job safety analysis plans and implement actions to obtain maximum control for the work in progress through engineering, education, employee placement and discipline as may be required. JSA plans will be prepared, whenever feasible, at least 30 days prior to commencement of the work phase/task.
2. Subcontractors and employees will be responsible for understanding their respective task in the Job Safety Analysis Plans. Changes will not be permitted, however, subcontractors supervisors and employees will be encouraged to participate in the development of JSA procedures and to submit suggestions for changes.

C. JSA plans, as developed, will be included in Appendix B of this program.



SECTION XVIII

GENERAL SAFETY AND HEALTH PROCEDURES





SECTION XVIII - GENERAL SAFETY AND HEALTH PROCEDURES

A. Introduction

1. The general safety and health procedures in this section are designed to give MK and subcontractor employees guidelines and mandatory requirements essential for a safe working environment.
2. It must be understood that these procedures are only a digest of basic applicable standards and shall be considered a supplement to and not a substitute for, other DOE/UMTRAP, OSHA, local, state, and other federal agencies' safety and health regulations and standards.
3. It should be noted that, as determined by the Management Safety Committee, special written safety and health procedures shall be developed for work phases of UMTRA projects utilizing the Job Safety Analysis technique outlined in Section XVII of this program.
4. The subcontractor may be required to submit written procedures for phases of work as stated in the special conditions. If an alternate method is deemed necessary to perform the specifically prescribed task, written procedures must be submitted by the subcontractor designating such.

B. General Safety and Health Procedures

1. Excavations

- a. According to the OSHA construction Safety and Health Standards, a trench is referred to as a narrow excavation in which the depth is greater than the width, although the width is not greater than 15 feet. An excavation is any man-made cavity or depression in the earth's surface. This can include excavations for anything from cellars to highways.
- b. OSHA requires that all excavations over 5 feet deep be sloped, shored, trenched, braced, or otherwise supported. When soil conditions are unstable, excavations shallower than 5 feet also must be sloped, supported or shored.
- c. One method of ensuring the safety and health of workers in a trench or excavation is to slope the sides of the cut to the "angle of repose," the angle closest to the perpendicular at which the soil will remain at rest. The angle of repose varies with different kinds of soil, and must be determined on each individual project. When an excavation has water conditions, silty material, or loose boulders, or when it is being dug in areas where erosion, deep frost, or slide planes are apparent, the angle of repose must be flattened.



- d. A second method of support is shoring-sheeting, tightly placed timber shores, bracing, trench jacks, piles, or other materials installed in a manner strong enough to resist the pressures surrounding the excavation.
- e. Subcontractors also may use a trench box, a prefabricated, movable trench shield composed of steel plates welded to a heavy steel frame. OSHA standards permit the use of a trench box as long as the protection it provides is equal to or greater than the protection that would be provided by the appropriate shoring system.

f. Designing Adequate Protection

- (1) Some of the considerations the subcontractor must take into account in design of protection are:
  - o Soil structure
  - o Depth of Cut
  - o Water Content of Soil
  - o Changes Due to Weather and Climate
  - o Superimposed Loads
  - o Vibrations
  - o Other Operations in Vicinity

g. Installing the Protection

- (1) Whatever support system is used, workers shall always apply shoring, starting from the top of the trench or excavation and working down. In installing the shoring, care must be taken to place the cross beams or trench jacks in true horizontal position and to space them vertically at appropriate intervals. The braces also must be secured to prevent sliding, falling, or kickouts.
- (2) All materials used for shoring must be in good condition, free of defects, and of the right size. Timbers with large or loose knots should not be used.
- (3) Installing the shoring should closely follow the excavation work. It is dangerous to allow trenches to remain unshored even if no work is being done in them: dirt walls will slough off, causing dangerous overhangs. The longer a trench is left unsupported, the greater the chance of a cave-in.

h. Special Precautions

- (1) The subcontractor will have to guard against an unstable excavation bottom, such as below the water line. Sheet piling may have to be driven below the bottom of such an excavation to add to the soil stability.



- x B(2) OSHA standards require that diversion dikes and ditches or other suitable means be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Water causes erosion and softening and should not be allowed to accumulate in a trench or excavation.
- (3) In excavations which employees may be required to enter, excavated or other material shall be effectively stored and retained at least 2 feet or more from the edge of the excavation.
- (4) In case of an emergency, workers must be able to leave the trench quickly. According to OSHA regulations, when employees are required to be in trenches 4 feet deep or more, adequate means of exit, such as ladders or steps, shall be provided and located so as to require no more than 25 feet lateral travel. Ladders must be in good condition, extend from the floor of the trench to 3 feet above the top of the excavation, and be secured at the top.
- (5) All underground utilities shall be located in advance of excavation and provisions made for their protection.

i. Inspections

- (1) Excavations and shoring systems must be inspected daily by a competent person.
- (2) Inspections are required after rain storms or any other change in conditions that can increase the possibility of a cave-in or slide. If dangerous ground movements are apparent, such as subsidence or tension cracks, all work in the excavation must be stopped until the problem has been corrected.

j. After the Work is Completed

- (1) As soon as work is completed, backfilling should take place as the shoring is dismantled. Workers should remove the shoring from the bottom up, taking care to release jacks or braces slowly. In unstable soil, ropes should be used to pull out the jacks or braces from above.

k. Remember

- (1) OSHA regulations for trenching and excavations work leave no room for risk-taking. They require that safe working conditions be provided for all employees working in excavations.
- (2) A greater awareness of the safety problems to be overcome in excavations--on the part of the employer who designs the protection and the employee who installs it--will help end cave-in hazards in construction.



2. Drilling Operations

- a. The drilling area shall be inspected for hazards before starting the drilling operation.
- b. Drill crews and other employees shall be directed to stay clear of augers or drill stems that are in motion.
- c. When drill helpers assist the drill operator during installation or operation of a drilling rig, the helpers shall be in sight of, or in communication with, the operator at all times.
- d. While in operation, drilling rigs shall be attended at all times.
- e. Drill steel, spare parts, and tools shall be safely stored in racks or receptacles on the drill rig when not in use.
- f. Employees shall not drill from positions which hinder their access to the controls or from insecure footing or staging.
- g. Drilling equipment shall be inspected at the start of each shift by a designated supervisor and any defects noted shall be corrected before the equipment is used.
- h. Before each drilling cycle is started, warning's shall be given to workers in the area around the drilling operation.

3. Housekeeping

- a. Cleanup: Work areas will be cleaned up daily and debris hauled away at least once a week.
- b. Oily Rags and Wastes: Oily rags, or other combustible debris shall be kept in metal containers provided for the purpose.
- c. Employee Facilities: Break rooms, change rooms, and toilet facilities will be kept in a clean and sanitary condition.
- e. Trash and Debris: Deposit trash, refuse, debris, lunch papers, and other waste in the proper refuse containers.
- f. Nails: Protruding nails, screws or other metal in form lumber, boards, etc., must be immediately removed, bent over or guarded to prevent puncture injuries.
- g. Tripping Hazards: Keep the construction site, especially roadways, accessways, aisles, stairways, scaffolds, and ladders clean of hoses, extension cords, welding leads, and other obstructions which may cause tripping or other accident hazards.



- h. Removal of Debris: When cleaning up, do not throw or drop materials from upper levels unless the area below is properly barricaded and adequate warnings are posted.
- i. Slipping Hazards: clean up or eliminate slipping hazards such as grease, oil, water, ice, snow or other liquids on walkways, ladders, stairways, scaffolds, or other accessways or working areas.

4. Material Handling and Storage

- a. Access: When storing materials remember to leave adequate accessways. Do not block aisles or exits.
- b. Flammable/Toxic Materials: Flammable and toxic or other harmful materials shall be stored in properly designated, well-ventilated areas. Observe and abide by "No Smoking" and other warning signs.
- c. Heavy Loads: Do not attempt to lift heavy loads without assistance. Learn how to lift properly by bending your knees and keeping your feet together. Avoid strain by lifting with your legs and arms, not your back.
- d. Life Lines: When working on material stored in silos, hoppers, tanks, or similar storage areas, wear a safety belt attached to a life line and have somebody standing by in case of emergency.
- e. Noncompatible Materials: Avoid stacking noncompatible materials in the same pile.
- f. Pulling and Prying: When pulling or prying objects, be sure you are properly positioned, balanced, and in the clear so you will not be caught between or thrown off balance if the pry slips or the piece suddenly gives.
- g. Riding Loads: Riding loads, slings, the ball, crane hook or other material hoisting equipment is prohibited except in an emergency.
- h. Storing: Materials and supplies shall be neatly and securely stacked, blocked, interlocked and limited in height so as to be stable and in no danger of collapsing, sliding, or falling over.

5. Personal Protective Equipment

- a. All employees shall use the protective equipment prescribed by local, state, federal, and Morrison-Knudsen's, Rules and Regulations to control or eliminate any hazard or other exposure to illness or injury. Any employee who willfully refuses to use the prescribed protective equipment designed to protect him or willfully damages such equipment shall be subject to disciplinary action which may include immediate termination.





- b. Ear Plugs or Muffs: Appropriate hearing protection shall be worn in work areas where noise levels exceed 85 dBA time weighted average (TWA).
- c. Equipment Return: Protective equipment such as safety goggles, safety belts, respirator, life vests, ear plugs, etc., furnished by the project or subcontractors will be returned when terminating employment or moving to another job. Individuals will be responsible for proper care of safety equipment and will take care not to lose or damage this equipment.
- d. Goggles, Safety Glasses, Face Shields, and helmets: Appropriate eye and head protection will be worn by every employees when.
  - (1) Welding, burning or cutting with torches.
  - (2) Using abrasive wheels, portable grinders, or files.
  - (3) Chipping concrete, stone, or metal.
  - (4) Working with any materials subject to scaling, flaking, or chipping.
  - (5) Drilling or working under dusty conditions.
  - (6) Sand or water blasting.
  - (7) Waterproofing.
  - (8) Working on energized switchboards.
  - (9) Using explosive actuated fastening or nailing tools.
  - (10) Working with compressed air or other gases.
  - (11) Working near any of the operations listed above.
- e. Hard Hats: All construction sites will be considered "Hard Hat Areas." All employees and visitors must wear approved hard hats during work hours while inside construction areas.
- f. Respirators: Approved respirators will be used when excessive dusts, mists, gases, or other atmospheric impurities are determined to be harmful to health.
- g. Safety Belts and Lifelines: Safety belts and secured safety lanyards will be used by all employees working from unguarded surfaces when falls to a different level present a hazard. Each employee will also wear a safety belt with his safety lanyard secured to a separate life line while working from swing scaffolds, bos'n chairs or other suspended work platforms when a falling hazard is present.
- h. Foot Protection: Most construction work requires foot protection. Safety shoes or safety boots should be considered for purchase by employees. When employees do not wear safety shoes, employers will provide alternate means of protection, when potential foot hazards exist.



- i. Specialized Protection Equipment: Special equipment for working with other types of hazards will be required. Some examples are:
  - (1) Work in energized electrical systems.
  - (2) Work with corrosive chemicals.
  - (3) Work over water.
  - (4) Welding & cutting
  - (5) Blasting (permitted only by DOE approval)
  - (6) Radioactive contamination

6. Wall and Floor Openings

- a. Floor openings shall be guarded by standard guardrails and toeboards or covers that are secured against accidental displacement.
- b. Manhole and temporary floor openings shall be guarded by standard covers. When the cover is not in place, the opening shall be protected by a standard guardrail.
- c. Wall openings, from which there is a drop of more than 4 feet, and the bottom of the opening is less than 3 feet above the working surface, shall be guarded.
- d. Runways shall be guarded by a standard railing, or the equivalent on all open sides 4 feet or more above floor or ground level. Whenever tools, machine parts, or materials are likely to be used on the runway, a toeboard shall also be provided on each exposed side.
- e. Regardless of height, open-side floors, walkways, platforms, or runways above or adjacent to dangerous equipment and similar hazards, shall be guarded with a standard railing and toeboard.

7. Scaffolds

- a. Lean-to scaffolds and makeshift platforms are prohibited.
- b. Scaffolds shall not be used for the storage of material except material being currently used.
- c. All scaffolds shall be adequately designed to carry, without failure, four (4) times the maximum intended load. At no time shall any scaffold be overloaded.
- d. All scaffolds shall be maintained in safe condition and scaffolds damaged or weakened, from any cause, shall be immediately repaired.





- e. Scaffolding on staging more than six feet (6') above the ground or floor, suspended from an overhead support, or erected with stationary supports, shall have standard guardrails and toeboards properly attached.
- f. Guardrails shall be two inches by four inches (2" x 4") or the equivalent, approximately 42-inches high with midrail when required. Supports shall be at intervals not to exceed 8 feet. Toeboards shall be a minimum of four inches (4") in height. Planking shall be cleated or otherwise secured to prevent displacement. Scaffolds must be braced and tied off both horizontally and vertically at intervals specified in the pertinent regulations.

8. Ladders

- a. Employees shall be instructed and required to ascend/descend ladders in the proper manner; that is, facing the ladders and holding on the side rails with both hands. Material shall be raised or lowered with a line or hoisting equipment and not carried in one hand while ascending or descending.
- b. Wood ladders shall not be painted as this may cover-up defects and deterioration.
- c. The side rails and cleats or rungs on ladders must be kept clean and free of lines, hoses, cables, wires, oil, grease, and debris.
- d. If a ladder is to provide the only means of access or exit from a working area for 25 or more employees, or simultaneous two-way traffic is expected, a double cleat ladder shall be installed.
- e. Portable ladders shall be placed so the horizontal distance at the bottom of the ladder is not less than one quarter (1/4) of the vertical distance to the top support. In case of necessity, where a ladder is placed more vertical, it shall be fastened to prevent tipping. If placed more horizontal, it shall be braced to prevent sagging.
- f. Portable ladders shall be placed so that the side rails have a secure footing. The top rest shall be rigid and have ample strength to support the applied load. The top of the ladder shall be clamped, tied off, or otherwise securely fastened, to prevent movement.
- g. Ladders with broken or missing rungs and steps, broken or split side rails, or other faulty and defective construction shall not be used.

- h. Single portable ladders over thirty feet (30') in length shall not be used. If greater heights are to be reached, separate ladders shall be used with intermediate landing platforms provided.
- i. Portable ladders, used on smooth floor or other smooth surfaces, shall be equipped with nonslipping bases, or otherwise secured to prevent displacement.
- j. Ladders shall be of sufficient length to project not less than three feet (36") above the top landing. When this is not practical, grab rails, which provide a secure grip for an employee moving to or from the point of access, shall be installed.
- k. Metal ladders shall not be used for electrical work or near electrical gear or conductors.

9. Gas Welding and Cutting

- a. A suitable cylinder truck, chain, or other secure fastening shall be used to keep cylinders from being knocked over while in use.
- b. Cylinders of oxygen shall not be stored close to cylinder of acetylene or other fuel gas. They shall be separated by 20 feet or by a noncombustible barrier.
- c. Oxygen cylinders, cylinder valves, couplings, regulations, hose, and apparatus shall be kept free from and away from oil and grease. "Oil or grease in the presence of oxygen under pressure may ignite violently." Employees shall be prohibited from handling oxygen cylinders or apparatus with oily hands or gloves.
- d. Cylinders in storage shall be kept away from sources of heat and shall be protected against the direct rays of the sun.
- e. Empty cylinders shall have their valves closed. Valve protection caps shall always be in place except where cylinders are in use or connected for use.
- f. When moving cylinders by a crane or derrick, a cradle, boat, or suitable platform shall be used. Slings, hooks, or electric magnets shall not be used. Valve protection caps shall always be in place.
- g. Compressed gas cylinders--Empty or Full--shall be secured in an upright position at all times except, if necessary, for short periods of time while cylinders are actually being hoisted or carried. Empty cylinders shall be marked EMPTY or MT for identification.



- h. All hoses shall be frequently inspected for leaks, worn places, and loose connections.

10. Arc Welding and Cutting

- a. Welding current return circuits or grounds must carry their current without hot or sparking contacts and without passage of current through equipment or structures which might be damaged or made unsafe by the welding current or its voltage. Specifically, welding current must not be allowed to pass through any of the following materials:
  - (1) Acetylene, fuel gas, oxygen or other compressed gas cylinders.
  - (2) Tanks or containers used for gasoline, oil or other flammable or combustible material.
  - (3) Pipes carrying compressed air, steam, gases or flammable or combustible liquids.
  - (4) Conduits carrying electrical conductors.
  - (5) Chains, wire ropes, metal hand railings or ladders, machines, shafts, bearings, or weighing scales.
- b. Whenever practical, all arc welding and cutting operations shall be shielded by noncombustible or flame-proof screens.
- c. The ground for the welding circuit shall be mechanically strong and electrically adequate for the service required.
- d. Electrode and ground cables shall be supported to prevent obstructions interfering with the safe passage of workers.
- e. Where it is necessary to couple, or uncouple, several lengths of cable for use as a welding circuit, insulated cable connectors shall be used on both the ground line and the electrode holder line.
- f. An electrode holder (Stinger) of adequate rated current capacity insulated to protect the operator against possible shock, and to prevent a short or flash when laid on grounded material, shall be used.
- g. Cables with worn insulation may not be used.

11. Personnel Protection

- a. When arc welding is performed near other workers, protection from arc rays by screens or adequate individual eye protection shall be provided.
- b. Protective clothing and safety equipment for any welding operation will depend on the size, nature, and location of the work.



- c. Some suggested and mandatory protective measures for welders and helpers are:
  - (1) Proper, approved eye and head protection shall be worn.
  - (2) Combination safety caps--welding helmets may be required in special situations exposing welders to the hazard of falling objects from above.
  - (3) For overhead work fire-resistant caps and shoulder covers will be worn.
  - (4) Clothing should be free of oil, grease, and other flammable material. Collars and cuffs will be buttoned and pant cuffs should be turned inside pants. Pockets should be covered with flaps and buttoned or eliminated from the front of vests, shirts, and aprons.
- d. Workers engaged on oxyacetylene welding or cutting must wear a welding helmet or safety goggles, equipped with suitable filter lenses.
- e. Workers engaged in electric arc welding must use shields or helmets, equipped with suitable filter lenses.
- f. All employees whose eyes are exposed to flying objects, resulting from chipping or similar operations, shall wear safety goggles with hardened lenses and side shields. Employees doing arc welding should wear such goggles under the hood for protection when the hood is raised.
- g. No welding, burning, or open flame work shall be performed on any staging suspended by means of fiber or synthetic rope.
- h. A proper fire extinguisher shall be placed near all welding and cutting operations. In some locations a fire watcher will have to be employed to stand by with an extinguisher.
- i. Either general mechanical or local exhaust ventilation meeting applicable regulations shall be provided whenever welding, cutting, or heating is performed in confined space.

12. Electrical

- a. All temporary and permanent electrical work, installation, and wire capacities shall conform to the National Electrical Code and other applicable federal, state, and local codes.
- b. Only qualified electricians familiar with code requirements shall be allowed to perform electrical work.
- c. No employee shall be permitted to work close to an unprotected electrical power circuit so that he may contact the same in the



course of his work unless the employee is protected against electrical shock by deenergizing the circuit and grounding it or guarding by effective insulation or other means.

- d. Electrical equipment or machinery shall be deenergized and rendered inoperative by the electrician locking out supply switches prior to performing work. The only exception is when power must be applied for the purpose of adjustments or electrical troubleshooting.
- e. Extension cords used with portable electrical tools and appliances shall be of the three wire type. Cords with the ground probe removed or rendered ineffective shall be removed from service.
- f. Electrical cords and trailing cables shall be covered, elevated or otherwise protected from damage which could create a hazard to employees or other persons in the area.
- g. Portable electrical tools shall be protected by ground fault circuit interruptors.
- h. The use of extension cords will be as limited as possible. Both male and female plugs must be of the dead front type.
- i. OSHA regulations governing the operation of heavy equipment in proximity to high-voltage power lines are very specific. All incoming equipment over 18 feet in height require advance notification and a utilities permit. Wide loads over 10 feet require a specified escort. Advance approval must be obtained through the MK site Manager or site Engineer before heavy equipment, which can reach within arcing distance and is to be located from 10 to 50 feet of high-voltage lines or equipment, then an "Outage" must be obtained.

13. Motor Vehicles and Heavy Equipment

- a. All motor vehicles shall be equipped with the following equipment in good operable condition.
  - (1) Adequate brake system
  - (2) Two headlights and two tail lights.
  - (3) Brake lights.
  - (4) Horn.
  - (5) Seat belts
  - (6) Good tires.
  - (7) Windshields and powered wipers.
  - (8) Defrosters when necessary.
  - (9) Rear-view mirror when applicable.





- b. Only authorized, licensed drivers shall be permitted to operate company or government vehicles assigned for use on the project. Accidents must be reported immediately to the MK Construction Safety & Health Manager.
- c. All cab glass shall be safety glass, or equivalent, that introduces no visible distortion affecting the safe operation of any machine covered by this part.
- d. No employer shall use any motor vehicle equipment having an obstructed view to the rear unless:
  - (1) The vehicle has a backup alarm audible above the surrounding noise level, or...
  - (2) The vehicle is backed up only when an observer signals that it is safe to do so.
- e. No personnel shall be permitted to get off or on moving vehicles or equipment.
- f. Heavy machinery, equipment, or parts thereof, which are suspended or held aloft by use of slings, hoists, or jacks shall be substantially blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between them. Bulldozer and scraper blades, end-loader buckets, dump bodies, and similar equipment, shall be either fully lowered or blocked when being repaired or when not in use. All controls shall be in a neutral position, with the motors stopped and brakes set, unless work being performed requires otherwise.
- g. All haulage vehicles, whose payload is loaded by means of cranes, power shovels, loaders, or similar equipment, shall have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.
- h. Engines shall be shut off during fueling or maintenance operations.
- i. Trip handles for tailgates of dump trucks and heavy equipment shall be so arranged that, in dumping, the operator will be in the clear.
- j. All vehicles in use shall be checked at the beginning of each shift to assure that equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use.
- k. No person shall be permitted to ride with arms or legs outside of the truck body, in a standing position on the body, or on running boards or seated on side fenders, cabs, cab shields, rear of truck, or on the load.



- l. No vehicle shall be driven at a speed greater than is reasonable and proper, with due regard for weather, traffic, intersections, width and character of the roadway, type of motor vehicle, and any other existing condition.
- m. Only approved standard hand signals for crane, derrick, and boom equipment shall be used. A copy of these hand signals shall be posted at the operating position of each piece of equipment.
- n. The manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks must be complied with. When manufacturer's specifications are not available, the limitations assigned to the equipment shall be based on the determinations of a qualified engineer competent in this field and such determinations, will be appropriately posted, documented, and recorded. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer.
- o. Rated load capacities, operating speeds, special hazard warnings shall be conspicuously posted on all equipment. Instruction or warnings shall be visible to the operator while he is at his control station.
- p. All machinery and equipment shall be inspected by a competent person prior to each use. Any deficiencies shall be repaired, or defective parts replaced, before continued use.
- q. A thorough, annual inspection of the hoisting machinery shall be made by a competent person. A record of the dates and results of inspections for each hoisting machine and piece of equipment must be maintained and available for review.
- r. Wire rope safety factors shall be in accordance with American National Standards Institute B30.5.
- s. Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating, or other moving parts of equipment shall be guarded if such parts are exposed to contact by employees, or otherwise create a hazard.
- t. Accessible areas within the swing radius of the rear of the superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane.
- u. Swinging or hanging loads shall be lowered to the ground and detached from the crane while the crane is being moved.
- v. An accessible fire extinguisher of 5BC rating, or higher, shall be available at all operator stations or cabs of equipment.





- w. Construction equipment brought on-site shall be inspected, tested, and certified to be in a safe operating condition. The inspection, test, and certified document must be available for the MK site Manager or site Engineer to review prior to use of equipment.
- x. Certification of an equipment operator's ability to operate safely is required and records of such certification must be available. The supervisor or foreman is responsible for determining the operator's skill, issuing the certification, and maintaining the records.
- y. Rollover protection (ROPS) as specified in 29 CFR 1926.602 is required for all applicable equipment operated on the project.



APPENDIX A

Poster, Records and Reporting Forms



Appendix A

Poster, Records and Reporting Forms

- 1 - Daily First Aid Unit Treatment Record (M-K Form No. CAS 8)
- 2 - Weekly Safety Training Meetings (M-K Form No. CAS 11)
- 3 - Safety Violation Notice. (M-K Form No. CAS 21)
- 4 - State of Idaho -- Notice of Injury and Claim for Benefits (Employees First Report of Injury for Workmans Compensation)
- 5 - Report of Occupational Injury/Illness, Property Damage or Motor Vehicle Accident (DOE F5484.X)
- 6 - Instructions for Completing DOE F5484.X)
- 7 - Tabulation of Vehicle Usage, Work-Hours, Tort Claims, and Property Valuation (DOE F5484.Y)
- 8 - Transmittal of DOE F5484.X and/or DOE F5484/Y
- 9 - Supervisor's Accident Investigation Report (M-K Form No. CAS 24)
- 10 - Formal Accident Investigation Packet (12 Pages) (M-K Form No. CAS 9)
- 11 - Unusual Occurrence Report Format DOE 5484.2
- 12 - Instructions for Completing an unusual Occurrence Report (3 Pages)
- 13 - Noise Survey (M-K Form CAS 19)
- 14 - Medical Resume (M-K Form CAS 23)
- 15 - Medical Authorization and Release Form (M-K Form No. CAS 27)
- 16 - U.S. Department of Labor Bureau of Labor Statistics Log and Summary of Occupational Injuries and Illnesses (OSHA Form No. 200)
- 17 - Instructions for OSHA Form No. 200
- 18 - U.S. Department of Labor Job Safety and Health Protection Poster (M-K Form No. CAS 18) (OSHA Form No. 2203)
- 19 - The same poster as 18 in Spanish
- 20 - Injury card, correction card, and Safety Award Application (M-K Forms No. CAS 6/2, 6/1 and CAS 10)
- 21 - Emergency Phone Numbers (M-K Form No. CAS 22)





# Weekly Safety Training Meetings

Date of Training: \_\_\_\_\_

Crew: \_\_\_\_\_ Craft(s): \_\_\_\_\_

Contract Location: \_\_\_\_\_ Contract No. \_\_\_\_\_

BRIEFLY DESCRIBE SPECIFIC TRAINING TOPICS COVERED:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

REMARKS:

Total Employees on Crew(s): \_\_\_\_\_ Total in Attendance: \_\_\_\_\_

SIGNATURE OF EMPLOYEES ATTENDING:

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

COMPLETE ALL SECTIONS FULLY AND SUBMIT TO THE PROJECT SAFETY SUPERVISOR OF SAFETY REPRESENTATIVE

Supervisor: \_\_\_\_\_

Job Title: \_\_\_\_\_



MORRISON-KNUDSEN COMPANY, INC.

SAFETY VIOLATION NOTICE

To: \_\_\_\_\_

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

From: \_\_\_\_\_

A Safety and Health Survey of your operations has revealed non-compliance of certain contract specifications, Morrison-Knudsen Company, Inc. safety and health policies and/or local, State or Federal regulations. As a condition of the contract, and applicable regulations, you are required to maintain a safe work environment and to prevent unsafe actions of your employees.

The Violation(s) noted and the required Corrective Action(s) is/are indicated below:

<u>Reference</u>	<u>Descriptions of Violation</u>
1.	
2.	
3.	
4.	

Corrective Action Required:

Violation(s) No.

- \_\_\_\_\_  Cease operation until corrective action is complete.
- \_\_\_\_\_  Initiate and complete corrective action by \_\_\_\_\_
- \_\_\_\_\_  Warn employees and instruct them on proper procedures.
- \_\_\_\_\_  Take appropriate disciplinary action.
- \_\_\_\_\_  Provide proper equipment.
- \_\_\_\_\_  Change procedure/work methods.

Complete the following and return to the Project's safety representative:

Action(s) Taken:

- 1.
- 2.
- 3.
- 4.

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

Signature/Position \_\_\_\_\_

NOTICE OF INJURY AND CLAIM FOR BENEFITS

Every work injury to an employee (including disease or infection in respect of such injury) which requires medical services other than first-aid treatment, must be reported within TEN days after the employer has knowledge of the injury.

EMPLOYER

1. Name \_\_\_\_\_ (GIVE NAME UNDER WHICH CONCERN DOES BUSINESS) 2. Phone No. \_\_\_\_\_  
Type of Business (State major activity, goods handled, work done, type of mine & ore extracted, products manufactured, etc.) \_\_\_\_\_  
4. Address \_\_\_\_\_ (BOX OR STREET NO.) (CITY OR TOWN) (STATE) (ZIP)  
5. Location if different from mail address \_\_\_\_\_  
6. Name of Insurance Carrier \_\_\_\_\_

INJURED OR ILL EMPLOYEE

7. Name \_\_\_\_\_ (FIRST) (MIDDLE NAME) (LAST) 8. Soc. Sec. No. \_\_\_\_\_  
9. Address \_\_\_\_\_ (BOX OR STREET NO.) (CITY OR TOWN) (STATE) (ZIP) 10. Phone No. \_\_\_\_\_  
11. Age \_\_\_\_\_ 12. Sex (check)  Male  Female 13. (Check)  Married  Single  Divorced 14. No. Children under 18 \_\_\_\_\_  
15. Hours worked per day \_\_\_\_\_; Per week \_\_\_\_\_ 16. Number of days worked per week \_\_\_\_\_ 17. Wages \$ \_\_\_\_\_ per \_\_\_\_\_ (Hour, Day, Week, Month)  
18. If board, lodging, or other advantages furnished in addition to wages, give estimated value: \$ \_\_\_\_\_ per week.  
19. If gratuities (tips, etc.) were received in the course of employment, give estimated value: \$ \_\_\_\_\_ per week.  
20. Occupation \_\_\_\_\_ 21. How long employed by you in this occupation? \_\_\_\_\_ (YEARS and/or MONTHS)  
22. Department regularly employed in \_\_\_\_\_

ACCIDENT OR EXPOSURE TO OCCUPATIONAL ILLNESS

23. Place of Accident or Exposure \_\_\_\_\_ (BOX OR STREET NO.) (CITY OR TOWN) (STATE) (COUNTY)  
24. Was place of accident or exposure on employer's premises?  Yes  No a.m.  
25. Date of accident, exposure, or initial diagnosis \_\_\_\_\_ 26. If accident, give time \_\_\_\_\_ p.m.  
27. Date employer learned of accident \_\_\_\_\_  
28. Did injury result in disability beyond date of accident?  Yes  No 29. If yes, give date last worked \_\_\_\_\_  
30. Was injured paid in full for this day?  Yes  No  No 31. Has employee returned to work?  Yes  No  
32. If yes, give date \_\_\_\_\_ 33. At what wage? \$ \_\_\_\_\_ per \_\_\_\_\_

CAUSE OF ACCIDENT

34. What was employee doing when accident occurred? (Describe briefly, such as loading truck, shoveling dirt, walking down stairs, etc.) \_\_\_\_\_  
35. How did the accident happen? (Describe fully, stating whether the injured person fell, was struck, etc.; give all factors contributing to accident. Use other side for additional space.) \_\_\_\_\_  
36. What machine, tool, substance, or object was most closely connected with the accident? (Name the specific tool, machine, appliance, gas, liquid, etc., involved.) \_\_\_\_\_  
37. If mechanical apparatus or vehicle, what part of it? (Gears, pulley, blade, motor, etc.) \_\_\_\_\_  
38. Were mechanical guards, or other safeguards provided?  Yes  No. 39. Was injured using them?  Yes  No.

INJURY OR OCCUPATIONAL ILLNESS

40. Describe the injury or illness in detail and indicate the part of body affected. (For example: amputation of right index finger at second joint, fracture of ribs, lead poisoning, dermatitis of left hand, etc.) \_\_\_\_\_  
41. Name and address of physician \_\_\_\_\_  
42. Name and address of hospital \_\_\_\_\_  
43. In Patient  Out Patient  44. Did employee die?  Yes  No. 45. If yes, give date \_\_\_\_\_  
In case of death, give name and address of nearest relative \_\_\_\_\_

Signature of Employer \_\_\_\_\_ Signature of Employee \_\_\_\_\_  
Prepared by \_\_\_\_\_ Official Position \_\_\_\_\_ Date of Report \_\_\_\_\_

Filing of this report is not an admission of liability. This report shall not be evidence of any fact stated herein in any proceeding in respect of the injury or death on account of which this report is made.



REPORT OF OCCUPATIONAL INJURY/ILLNESS, PROPERTY DAMAGE OR MOTOR VEHICLE ACCIDENT  
FOR ALL A, B, AND C INVESTIGATIONS

DOE F 5484.X

Rev. 7-82

For SSDC Use Only

Case Closed      Revision: \_\_\_\_\_

Energy Type

FRASE \_\_\_\_\_ P  A  E  C1  C2

Enter \_\_\_\_\_ Date \_\_\_\_\_

OFFICIAL USE ONLY - PRIVACY ACT

General

(1) Reporting Organization \_\_\_\_\_

(2) Case Number \_\_\_\_\_  
Year \_\_\_\_\_

(3) Multiple-Case Accident Number \_\_\_\_\_

(4) Accident Type  Injury/Illness  
 Property Damage  
 Vehicle

(5) Investigation Type  A  B  C  Declassified

(6) Program (check one)  
 Fossil  Solar  
 Geothermal  Other \_\_\_\_\_  
 Nuclear

Date and Location

(7) Date of Occurrence \_\_\_\_\_  
Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

(8) Time \_\_\_\_\_  
Hour \_\_\_\_\_ Min. \_\_\_\_\_  A.M.  
 P.M.

(9) Accident Occurred  Indoors  
 Outdoors

(10) On Employer's premise?  Yes  
 No

(11) Specific Location \_\_\_\_\_

Employee Information

(12) Check One:  Injured/Ill Employee  
 Equipment/Vehicle Operator

(13) Name \_\_\_\_\_

(14) S.S. No. \_\_\_\_\_

(15) Department or Division \_\_\_\_\_

(16) Age \_\_\_\_\_ (17) Sex  Male  
 Female

(18) Occupation \_\_\_\_\_

(19) Length of present employment  
 a. Under 3 months  c. 1 to 10 years  
 b. 3 to 12 months  d. Over 10 years

(20) Time in present job classification  
 a. Under 3 months  c. 1 to 10 years  
 b. 3 to 12 months  d. Over 10 years

(21) Lifetime experience on equipment  
 a. Under 3 months  c. 1 to 10 years  
 b. 3 to 12 months  d. Over 10 years

(22) In Vehicle accidents,  Yes  
was the seat belt worn?  No

Injury/Illness  
(OSHA Information)

(23)  Injury Code (10)  
Illness  
 Code 7a (21) - Skin diseases or disorders  
 Code 7b (22) - Dust diseases of lungs  
 Code 7c (23) - Resp. due to toxic agents  
 Code 7d (24) - Poisoning  
 Code 7e (25) - Disorders - Physical agents  
 Code 7f (26) - Disorders - Repeated trauma  
 Code 7g (29) - All other

(24) Workdays Lost \_\_\_\_\_

(25) Workdays Restricted \_\_\_\_\_

(26) Death  Yes  
 No

(27) Permanent transfer to different job because of accident?  Yes  
 No

(28) Employee terminated because of accident?  Yes  
 No

(29) Has Employee returned to work with no further anticipated workdays lost or restricted?  Yes  
 No

Vehicle/Property Damage

(30) Vehicle  Government  
 Private - Driven by Govt. Employee  
 Car/Pickup/Van/Motorcycle  
 Truck  
 Bus  
 Other (Air, Marine, Railroad, etc.)

(31) Property  Fire  
 Non-Fire

(32) \$ \_\_\_\_\_  
Total loss borne by DOE  
\$ \_\_\_\_\_  
Amt. of Line 32 resulting from claim against DOE

(33) \$ \_\_\_\_\_ \$ \_\_\_\_\_  
Reimbursable to DOE      Paid to DOE  
(Line 32 + 33 = total accident damages)

(34) Are dollar amounts final?  Yes  
 No

Equipment/Hardware Involved

(35) #1 Equipment \_\_\_\_\_  
Generic Name \_\_\_\_\_  
Brand or Model Name \_\_\_\_\_  
Identification No. \_\_\_\_\_

#2 Equipment \_\_\_\_\_  
Generic Name \_\_\_\_\_  
Brand or Model Name \_\_\_\_\_  
Identification No. \_\_\_\_\_

(36) Did equipment contribute to accident cause or severity?  Yes  
 No

(Continue on reverse side)

NARRATIVE GUIDE

37. Activity

a. Activity in progress at time of accident

b. Task employee was actually performing

38. Events

a. Sequence of events

b. Nature and extent of Injury/Damage

39. Accident Causes

a. Pre-accident conditions

b. Contributing factors or underlying causes (include management factors).  
Indicate weakness in the safety program or in its execution, if any.

40. Corrective Actions (If risk is acceptable, corrective action may not be necessary)

a. Actions taken

b. Actions recommended

To be completed by \_\_\_\_\_  
Implementation Date

41. \_\_\_\_\_  
Accident Investigator Date FTS Telephone

Job Title:  Supervisor  Safety Professional  Other \_\_\_\_\_

42. \_\_\_\_\_  
Supervisor Date FTS Telephone

Appendix A6

INSTRUCTIONS FOR COMPLETING DOE F 5484.X

To be used for all DOE recordable accident/incident cases: As preliminary input for all Type A and B Investigation reports and as sufficient data for Type C accidents (reference: DOE 5484.1). Mail completed DOE F 5484.X forms, along with the transmittal form (CAIRS 300) to SSDC, P.O. Box 1625, Idaho Falls, Idaho 83415 - Attention: CAIRS. Revisions to information on this form may be transmitted by telephone (FTS 583-9566 or Commercial 1-208-526-9566) or by mailing a copy of the revised original to the above address.

General

1. Each reporting organization is assigned a unique seven-character identification number. If code is unknown, enter reporting organization name (company, field office, etc.) above the code block on the form.
2. Enter case number. The first two digits are the year, followed by a three digit serial number. Each reportable accident/incident will be numbered in sequence, regardless of injury/illness, property damage or vehicle type; (e.g., the tenth accident in 1982 is 82010).
3. Multiple-case accidents are those which result in more than one recordable injury, property damage or vehicle case or combination thereof; (two or more injured persons, two or more damaged vehicles, any combination of injury and/or property damage, etc.). Report each injury/property damage/vehicle case resulting from a single accident on a separate form, with an identical multiple-case accident number to show relationship to the common accident/incident; (e.g., if the first multiple-case accident of the year resulted in two contractor employees being injured in a one-car rollover, each case would be reported on a separate form 5484.X and assigned sequential case numbers 82005 and 82006. The vehicle damage, if reportable, would be shown on a third form, number 82007. The same multiple-case number "01" should be entered in line 3 on each of the three forms. Number each additional multiple accident sequentially).
4. Check appropriate accident type. Include in vehicle type, all transportation accidents; i.e., vehicle, aircraft, marine and railroad.
5. Indicate the Investigation Type; A, B, or C. The declassified box is used when a previously reported case has been declassified to non-recordable status.
6. Check the program type classification under which the accident occurred.

Date and Location

7. Enter date of accident.
8. Enter time of accident.
9. Check appropriate box.
10. Check appropriate box.
11. Enter brief statement for specific location of accident.

Employee Information

12. Check appropriate box.
13. Enter the name of the employee or operator.
14. Enter Social Security Number or other employee number.
15. Enter department or division where employee/operator is employed.
16. Enter age of employee/operator.
17. Check appropriate box.
18. Enter specific job classification title.
19. Check appropriate box.
20. Check appropriate box.
21. Check appropriate box. Complete number 35 if this is checked.
22. Check appropriate box.

Injury/Illness

23. Check appropriate box. (Reference: OSHA log).
24. Enter number of workdays lost.
25. Enter number of restricted workdays.
26. Check appropriate box.
27. Check appropriate box.
28. Check appropriate box.
29. Check appropriate box.

Vehicle/Property Damage

30. Indicate whether the vehicle is government-owned, or is a privately-owned vehicle driven by a Government employee. Also check the type of vehicle involved in the accident. To be used only if "vehicle" was checked in number 4.
31. Check appropriate box. To be used only if "Property Damage" was checked in number 4.
32. Enter the total loss for this case to be borne by DOE. Claims against DOE for damages to non-DOE vehicles or property should be included in the total DOE loss as well as recorded separately here. For multiple-case accidents, the dollar loss should not be redundant; e.g., prorate the cost of a multiple-case accident, involving two DOE vehicles.
33. Enter the dollar loss, if any, to DOE vehicles/property which should be reimbursable; also enter the amount actually paid to DOE. Do not delay the report; if necessary report actual amounts paid via revision after the case is settled. (Note: The sum of the loss borne by DOE, line 32, and the reimbursable amount, line 33, is the total dollar loss to all parties).
34. Check appropriate box.

Equipment/Hardware Involved

35. Give generic name, brand name and identification of equipment involved in the accident.
36. Check appropriate box.

INSTRUCTIONS FOR COMPLETING DOE F 5484.X

Narrative Guide

37. Activity

a. What activity or assignment was in progress at the time of the accident?

- Example: 1) Routine housekeeping duties were being performed.  
2) No activity in facility due to extended holiday weekend.  
3) Employee was involved in routine security inspection.

b. What specific task was the employee actually performing at the time of the accident?

- Example: 1) Employee was pulling utility cart which was loaded with bags of heavy wastepaper from office area to hallway.  
2) No employee activity.  
3) Employee was driving patrol car from guard station to research facility.

38. Events

a. Describe accident, in order of sequence, beginning with initiating event, and followed by secondary and tertiary events.

- Example: 1) Wheel of utility cart caught against door casing. Bags of heavy wastepaper which were in cart fell to end of cart. Cart tipped over onto foot of employee. Right foot was crushed between utility cart and door casing.  
2) HVAC system malfunctioned during long weekend. Upper floor of office building became excessively hot and triggered the automatic sprinkler system.  
3) Patrol car struck icy section of road. Employee lost control of vehicle, which skidded across road into concrete abutment on side of road.

b. Nature and Extent of Injury/Damage.

- Example: 1) Right foot of employee was severely bruised.  
2) Upper office area and contents were damaged by water. Extensive clean-up required.  
3) Damage to right front fender, tire, headlight and grill.

39. Accident Causes

a. State the pre-accident condition, omission, or error; (the specific control factor which was the direct or immediate cause of the accident).

- Example: 1) Wheel of utility cart was worn and would not roll properly. Utility cart was overloaded with wastepaper.  
2) Thermostatic control on HVAC had been improperly installed during recent replacement.  
3) Road was covered with icy spots. Weather was foggy.

b. List in order of importance the contributing factors or underlying causes; (management system factors).

- Example: 1) Employee had not been instructed in overloading hazards.  
2) Facility maintenance had not inspected the newly-installed thermostatic control. No existing supervisory review over craft-assigned repairs.  
3) Employee had not been trained in driving under winter conditions. Company has no driver training program.

40. Corrective Actions

a. Actions taken to prevent recurrence of accident/incident.

- Example: 1) Wheels of utility cart were replaced with larger size wheels. All carts will be inspected for safe operation. Maintenance employees were instructed in overloading hazards.  
2) Thermostatic control was inspected and found free of defects and was properly rewired.  
3) All security personnel were instructed at safety training meeting on driving under hazardous conditions.

b. Recommended corrective actions are those which are planned by line management which require time for implementation. Provide implementation date.

- Example: 1) Provide human factors review of utility carts and other equipment purchases.  
2) Management to review maintenance procedures and inspection process.  
3) Provide defensive driver training course.

41. Enter signature of accident investigator who can be contacted for follow-up, the date and FTS or commercial telephone number and indicate the investigator's job title.

42. Enter signature and FTS or Commercial telephone number of cognizant supervisor.

U.S. Department of Energy

TABULATION OF VEHICLE USAGE, WORK-HOURS, TORT CLAIMS AND PROPERTY VALUATION

Quarterly Reporting Period: \_\_\_\_\_

Reporting Organization \_\_\_\_\_

Check One 1 2 3 4

Identification Code \_\_\_\_\_

DOE- AND DOE CONTRACTOR-OPERATED CONVEYANCE	NUMBER OF CONVEYANCES	QUARTER USAGE	
		MILES OF TRAVEL	HOURS OPERATED
A. Cars, Pickups, Vans & Motorcycles			
B. Trucks			
C. Buses			
D. Aircraft		Fixed Wing	
		Rotary	
E. Marine			
F. Railroad			
DOE EMPLOYEE-OPERATED VEHICLES/EQUIPMENT			
G. Private Motor Vehicles			
H. Material Handling Equipment			

I. Total Work-hours this quarter	
J. Work-hours by Category (Optional)	

YEAR-END DATA	
K. Total Amount of Safety-Related Tort Claims	\$ _____
L. Government Property Valuation	\$ _____

Submitted by \_\_\_\_\_

Date \_\_\_\_\_

INSTRUCTIONS FOR COMPLETING DOE F 5484.Y

The data submitted on this form are required for normalizing DOE accident statistics. Report all data (other than year-end data) at the end of each quarter, for that quarter only. Report tort claim and property valuation data at year-end only. Mail completed DOE F 5484.Y forms, along with the transmittal form (CAIRS 300) to SSDC, P.O. Box 1625, Idaho Falls, Idaho 83415 - Attention: CAIRS. Revisions to information on this form may be transmitted by telephone (FTS 583-9566 or Commercial 1-208-526-9566) or by mailing a copy of the revised original to the above address.

- Item A - Report data for all cars, vans, light trucks (less than one ton rating), and motorcycles which are owned, leased, or rented by the Federal Government. Include data for contractor operated privately-owned vehicles of the same class if they are used in DOE contract work and for which cost reporting to DOE would be required in the event of accidental damage.
- Item B - Report data for all trucks (rated at 1 ton or greater) which are owned, leased, or rented by the Federal Government. Include data for contractor operated privately-owned trucks if used in DOE contract work and for which cost reporting to DOE would be required in the event of accidental damage.
- Item C - Report data for all buses owned, leased or rented by the Federal Government which are used in transporting passengers and are operated by a professional driver. Include data for contractor operated privately-owned buses used in DOE contract work and for which cost reporting to DOE would be required in the event of accidental damage.
- Item D - Report data for all airborne aircraft, whether powered, towed, or free-flying, which are being operated by a DOE or DOE contractor employee. This includes privately-owned as well as Federal Government-owned, -leased or -rented aircraft.
- Item E - Report data for all waterborne craft, motorized, non-motorized, steam, sail, towed, etc., which are operated by a DOE or DOE contractor employee. This includes privately-owned as well as Federal Government-owned, -leased or -rented marine craft.
- Item F - Railroad - any unit of equipment (or combination) listed below, which is operated by a DOE or DOE contractor employee:
  - Locomotive: self-propelled unit of equipment designed solely for moving other equipment.
  - Light Locomotive: self-propelled unit of equipment not coupled to any other equipment.
  - Motor Car: self-propelled unit of equipment; designed to carry freight or passengers (not a locomotive).
  - Car: examples include freight, passenger, dining equipment, caboose, chemical, gondola, mining, ATMX, courier.
- Item G - DOE Federal Government reporting units should include data for private vehicles used in Federal Government work and operated by a DOE employee. (Necessary to satisfy OSHA Federal reporting requirements).
- Item H - DOE Federal Government reporting units should include data for material handling equipment operated by a DOE employee. (Necessary to satisfy the OSHA Federal reporting requirements).
- Item I - Include the hours worked for the quarter being reported. Cumulative year-to-date totals are not necessary.
- Item J - "Work-hours by Category" is provided as an option to those reporting units which desire rate data for their specific categories. Rates can be calculated for any category (department, occupation class, age group, etc.) which is identified in the injury investigation and reported on form DOE F 5484.X (Report of Occupational Injury/Illness, Property Damage or Motor Vehicle Accident).
- Item K - Report at the end of each calendar year the total dollar amount paid by DOE for tort claims. Include only tort claims which are ES&H-related and result from an occupational occurrence.
- Item L - Update the DOE Federal Government property valuation at the end of each calendar year.











FORMAL ACCIDENT INVESTIGATION PACKETInstructions:

This packet contains a number of accident investigation forms which are to be completed in case of fatalities. It can also be used for serious injury investigations or as directed by the Director of Safety.

These forms are legal documents and should be treated as confidential. Only persons who have a need to know shall be allowed access.

1. All forms must be typed or plainly printed in ink.
2. Assign a case file number to each investigation and make sure this number is placed on all forms, maps, blueprints, photos, and correspondence. This number shall be derived as follows:  
  
MK contract number--year--sequential number.  
(For example: 2634-82-01; contract 2634, 1982, case number 1)
3. Follow the specific instructions contained on each form.
4. Utilize the checklist, MK Form CAS 9.1 to ensure all necessary documentation for the formal investigation is completed.
5. This accident investigation packet is designed to be used as an intra-company instrument to document and analyze serious accidents and to develop preventive measures. It may also provide valuable data in case of an accident claim or suit against the company. Therefore, the forms contained herein shall not be transmitted to the insurance carrier or other agencies or persons outside of the company unless approved by the Corporate Safety and Legal Departments.
6. Distribution -- The originals of all forms must be forwarded to the Director of Safety and a copy shall be placed in the project file. A copy of all insurance reports must be included with the investigation report forms and mailed to the Director of Safety in the Boise Office.



CHECKLIST

Instructions: Use this checklist to ensure all forms and required actions for a fatality or serious injury are completed.

<u>Initials</u>	<u>Time/Date Completed</u>	<u>Item</u>
_____	_____	Refer to Administrative Bulletin No. 12.1.2 and complete required notifications.
_____	_____	Set up case file and determine file number.
_____	_____	Distribute and have witnesses complete Witness Statement forms. (MK Form CAS 9.2)
_____	_____	Distribute and have supervisor complete Supervisor Accident Investigation Report form (MK Form CAS 24)
_____	_____	Collect and process film taken at accident scene. Set up Photo Evidence Sheets. (MK Form CAS 9.3)
_____	_____	Research and collect background documents, i.e. training meeting reports, safety indoctrination, equipment inspection reports, prior accident history, blueprints, maps.
_____	_____	Maintain "Visitors Log." (MK Form CAS 9.4)
_____	_____	Prepare insurance report of injury and property equipment damage reports if applicable.
_____	_____	Complete injury card. (MK Form CAS 6/2)
_____	_____	Complete Narrative Report. (MK Form CAS 9.5)
_____	_____	Collect copies of any safety citations, police and coroners reports.
_____	_____	Organize entire file and forward to Boise Safety Dept.
_____	_____	Distribute insurance reports as required. Do not forward other reports or internal documents to insurance carrier or other authority without approval of Corporate Safety and Legal Departments.



WITNESS STATEMENTS

Instructions:

Each person who witnessed the accident or who witnessed an event prior to the accident which may have a bearing on the accident should be given a witness statement form to complete. These statements must be typewritten or written plainly in ink. Ensure each statement is signed and dated by the witness.

Prior to issuing forms, write the case number in the upper right hand corner of each form. Also assign a different witness number (i.e. W-1, W-2, W-3, W-4, etc.) to each form.



WITNESS STATEMENT

Witness's Name \_\_\_\_\_  
Last First M.I.

Social Security No. \_\_\_\_\_ Birthdate \_\_\_\_\_

Employer: \_\_\_\_\_

Occupation: \_\_\_\_\_

Home Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: \_\_\_\_\_  
(include area code)

Instructions:

Complete all sections on this form and remember to sign and date the form. Use additional sheets if necessary. It is important to include the following elements in your statement:

WHO - Who did you see, who was injured, and/or involved in the accident.

WHAT - Give a brief description of the accident.

WHEN - Indicate time of day, date of accident and any unusual weather conditions (i.e. wet, clear, dark, dusty, foggy, etc.)

HOW - According to what you saw, how did the accident occur? What equipment was involved (include model serial numbers, license numbers, if known.)

WHERE - Accurately describe where the accident occurred, the location on the facility or project site should be clearly indicated. If necessary draw a map or reference a fixed landmark.

Witness Statement:



Case No. \_\_\_\_\_

Witness No. W- \_\_\_\_\_

Witness Statement (Cont'd):

Date \_\_\_\_\_ Signature of Witness \_\_\_\_\_





PHOTO EVIDENCE SHEETS

Instructions:

All photographs must be identified by number on the back and then they must be attached to a photo evidence sheet. Pertinent information such as print number, time and date photos were taken, direction camera was pointing and relationship to accident must be recorded below each photo.

Date of Accident: \_\_\_\_\_

Photos Taken By: \_\_\_\_\_  
last first m.i.

Job Title: \_\_\_\_\_

Evidence Sheet Prepared By: \_\_\_\_\_  
last first m.i.

Job Title: \_\_\_\_\_



ATTACH PHOTO HERE

ATTACH PHOTO HERE

Print Number:

Time/Date Taken:

Direction:

Notes:

Print Number:

Time/Date Taken:

Direction:

Notes:





NARRATIVE REPORT

Instructions:

This report is to be completed by the MK supervisor in charge of the accident investigation. All sections must be completed and the report must be signed and dated.

The purpose of this report is to give a narrative summary of the significant events during and after the accident. Persons and equipment involved, probable causes and corrective actions should be delineated.

Use additional sheets as necessary.

Pre-Accident Conditions/Events:



Describe Accident:

Probable Primary Cause:



MORRISON-KNUDSEN COMPANY, INC.

Case No. \_\_\_\_\_

Possible Secondary Causes:

Post-Accident Events:



Corrective Actions Taken/Recommended:

Investigator's Name \_\_\_\_\_  
last first m.i.

Job Title \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_







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UNUSUAL OCCURRENCE REPORT CONTINUATION SHEET

Page \_\_\_\_\_ of \_\_\_\_\_

UOR No. \_\_\_\_\_  
UOR Date \_\_\_\_\_

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Note: Please use this form when there is insufficient space for providing complete information on pages 1 and 2. Indicate the appropriate page number, UOR number, and UOR date. When entering information on this form, use the appropriate item number and title for each item carried over from pages 1 and 2.

INSTRUCTIONS FOR COMPLETING AN UNUSUAL OCCURRENCE REPORT

The following item numbers correspond with the numbers used on the sample UOR form. Efforts concerning certain sensitive facilities or activities may contain classified information and shall be reviewed for classification where appropriate.

1. UOR Number. Assign an alphanumeric designation consisting of the acronym of the contractor/laboratory, the last two digits of the year in which the incident occurred, and a sequential report identification number. This number shall be followed by a facility designation consisting of the acronym of the facility in which the event occurred followed by either (1) a sequential number; or (2) the last two digits of the year followed by a sequential number; e.g., EG&G 81-21--ATR 81-8. The number assigned to an initial UOR shall be used to identify subsequent interim and final UORs for the same occurrence.
2. Status and Date. Initial \_\_\_\_\_  
Interim \_\_\_\_\_  
Final \_\_\_\_\_

Show all dates. That is, for a final report, show the date and the dates of preceding initial and interim reports. If more than one interim UOR was submitted, only the latest date needs to be shown.

3. Division or Project. Identify in full the organizational unit responsible for the facility in which the occurrence took place.
4. Facility, System, or Equipment. Identify the facility in which the occurrence took place, and the system or equipment item involved as applicable.
5. Date of Occurrence. Enter the date of the occurrence, if known, otherwise enter the date on which the occurrence was identified and so state.
6. Time of Occurrence. Enter the exact time of the occurrence, or the best approximate time if the exact time is not known. This may be important in the case where a sequence of events may have occurred, and thus provide some clue as to what might have happened.
7. Subject of Occurrence. Enter a brief title or description (20 words or less) that best details the nature of the occurrence.
8. Apparent Cause. Check the box that best describes the apparent cause. If more than one cause, check all that apply. If the box "Other" is checked, it is to be explained under item 14.

9. Description of Occurrence. Enter a clear, concise, objective description of what happened and what was observed including, when applicable, the mode of failure and the effect of the failure. Do not include in this item an evaluation of the occurrence or corrective actions taken. Include, as attachments, copies of photos, sketches, or drawings, when appropriate, for clarification.
10. Operating Conditions of Facility at Time of Occurrence. Describe the operational status of the facility or equipment at the time of failure, including pertinent temperatures, pressures, or other parameters necessary for evaluation of the occurrence and its consequences. If this information is not applicable, enter "Does not apply."
11. Immediate Evaluation. With the information available, provide a description of the immediate evaluation as to the cause of the unusual occurrence and its effect or possible effect on the plant, system, program, etc.
12. Immediate Action Taken and Results. Describe the immediate or remedial actions taken to return the facility, system, or equipment item to service, or to correct or alleviate the anomalous condition, and the results of those actions. These may be temporary measures to keep the facility in a safe standby condition or to permit continued operation of the facility without compromising safety until a more searching investigation or permanent solution can be effected.
13. Is Further Evaluation Required?  
Yes \_\_\_\_\_ No \_\_\_\_\_; If Yes, Before Further Operation? Yes \_\_\_\_\_ No \_\_\_\_\_;  
If Yes, By Whom? \_\_\_\_\_  
When? \_\_\_\_\_
14. Final Evaluation and Lessons Learned. This item should be completed only in the final UOR. The final evaluation should include a discussion of cause, if appropriate, to supplement item 8, including an analysis of the root and contributing causes, and contributory factors disclosed by investigation. Include any lessons that others might learn from the occurrence that could be of importance to facility operators or that should be addressed in personnel training or facility procedures. Consequences of the occurrence and steps taken to alleviate those consequences should not be described unless they contribute to an understanding of the occurrence.
15. Corrective Action.  
Taken: \_\_\_\_\_; Recommended: \_\_\_\_\_; To be supplied: \_\_\_\_\_.

Check the appropriate box and describe the action taken to prevent recurrence. Corrective action which is identical to the immediate action identified in Item 12 need not be repeated; however, a reference to Item 12 should be entered. The UOR cannot be considered final until corrective action has been completed.

16. Programmatic Impact. Describe the impact on the program or project affected by the occurrence. This could be a loss of data, loss of plant availability for a specified period, additional costs, delay in schedule, or other measurable consequences of the occurrence.
17. Impact Upon Codes and Standards. If the unusual occurrence impacts upon the requirements of the national codes and standards, or program standards, the adequacy of the codes or standards to prevent recurrence should be stated.
18. Similar Unusual Occurrence Report Numbers. Indicate any similar unusual occurrences for this facility or other facilities of which you are aware. Also enter any known commercial reactor License Event Report (LER) or other related documents that describes a similar occurrence. The purpose of this item is to identify, if recognized, occurrences that might suggest a generic problem.
19. Signatures. Each UOR must be signed by, as a minimum, the individual originating the report, the cognizant supervisor, and the responsible line manager. In addition to the written signatures, the typed names and titles of the signatories shall be provided.

Note: Each page of the UOR shall be numbered (preferably at the top right) using the following format: Page \_\_\_\_\_ of \_\_\_\_\_. The total number of pages is to include any continuation pages or extra attachments.





DIAGRAM:  
(Show measuring location with an X.)

Location on Project: \_\_\_\_\_

DIAGRAM:  
(Show measuring location with an X.)

Location on Project: \_\_\_\_\_

PERMISSIBLE MAXIMUM LEVEL PER DAY	PERIOD OF NOISE EXPOSURE
OVER 115	NONE
115	1/4
110	1/2
105	1
102	1 1/2
100	2
97	3
95	4
92	6
90	8
UNDER 90	ANY

$$\frac{T1}{L1} + \frac{T2}{L2} + \frac{T3}{L3} \text{ etc.} = F$$

Where T = period of noise exposure at a constant level,

L = duration of permissible noise exposure at that level,

F = cumulative noise exposure factor which should not exceed 1.

(Impact check must be under 140 dB(C) at peak sound pressure, fast response)

ADDITIONAL NOTES: \_\_\_\_\_

RECOMMENDATIONS: \_\_\_\_\_

SURVEY DATE \_\_\_\_\_ TIME \_\_\_\_\_

Signature \_\_\_\_\_

TEST MADE BY \_\_\_\_\_ Name

Title



MORRISON-KNUDSEN COMPANY, INC.

## MEDICAL RESUME

CAS 23/76

Name			Date of Birth
Permanent Address			
Street		Tel. No. _____	
City		Area Code	_____
State		Zip Code	_____
In care of (if necessary)			
Occupation			Date

**HISTORY (to be filled out by applicant)**

1. What disabling injuries or diseases have you had? \_\_\_\_\_  
When? \_\_\_\_\_ Where? \_\_\_\_\_  
Explain: \_\_\_\_\_
2. What operations have you had or been advised to have? \_\_\_\_\_
3. Do you wear a back support or brace? \_\_\_\_\_
4. Ever refused employment for health or physical reasons? \_\_\_\_\_
5. Ever disqualified for duty in the Armed Forces, or discharged therefrom for medical reasons? \_\_\_\_\_  
If medically discharged, what was nature of disability? \_\_\_\_\_
7. Have you ever had, or have you now, any of the following: (Check Yes or No)

NOTE: Explain any positive answers on the back.

	YES	NO		YES	NO		YES	NO
Frequent Headaches			Tuberculosis			High Blood Pressure		
Dizziness or Fainting			Pleurisy/Pneumonia			Hearing Loss		
Convulsions/Epilepsy			Indigestion/Ulcers			Hives, Eczema or skin rash		
Paralysis including Polio			Abdominal Pain			Serum Reaction		
Persistent Fatigue			Nausea or Vomiting			Other Allergies		
Mental illness			Kidney Disease			Metallic Poisoning		
Nervous Breakdown			Boils			Diabetes		
Chest Pains			Backache or Spinal disc disorder			Tumor or Growth		
Difficulty in breathing			Joint Pains			Rupture/Hernia		
Rheumatic fever			Foot Ailment			Drug Addiction		
Heart Disease			Eye Ailment			Under Medication		
Spitting Blood			Infectious Diseases			Alcoholism		
Other								

I, the undersigned, applying for employment, do hereby certify that the answers to the above questions are true to the best of my knowledge, and I understand that a false statement will be considered sufficient cause for future disciplinary action.

Applicant's Signature \_\_\_\_\_

## MEDICAL AUTHORIZATION AND RELEASE FORM

### MEDICAL AUTHORIZATION

To be taken to the Doctor by Employee. Doctor will detach and retain upper section.

To \_\_\_\_\_, M.D. \_\_\_\_\_  
(Name) (Address)

Please render medical attention to \_\_\_\_\_  
(Name)

Authorized by \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

Date \_\_\_\_\_ Time \_\_\_\_\_

---

### DOCTOR'S RELEASE

To be completed by Doctor and given to Employee. Employee must present this release to his Employer prior to resuming work.

Employee Name \_\_\_\_\_ Job Title/Craft \_\_\_\_\_

Whom I have treated for \_\_\_\_\_  
(Type of Injury/Illness)

Is Hereby: Released for Work

Not Released for Work  Until \_\_\_\_\_

Released for Light Duty

Additional Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

\_\_\_\_\_  
(Signature)



Appendix A 16

NOTE: This form is required by Public Law 91-596 and must be kept in the establishment for 2 years. Failure to maintain and post can result in the issuance of citations and assessment of penalties. (See posting requirements on the other side of form.)

Form Approved O.M.B. No. 1220-0029

Case or File Number	Date of Injury or Illness	Employer's Name	Occupation	Department	Description of Injury or Illness	Extent of and Outcome of INJURY				Type, Extent of, and Outcome of ILLNESS								
						Days Lost	Days Restricted	Days Away from Work	Days of Restricted Work	Days Lost	Days Restricted	Days Away from Work	Days of Restricted Work					
(A)	(B)	(C)	(D)	(E)	(F)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
PREVIOUS PAGE TOTALS																		
TOTALS (Instructions on other side of form.)																		

## Instructions for OSHA No. 200

## I. Log and Summary of Occupational Injuries and Illnesses

Each employer who is subject to the recordkeeping requirements of the Occupational Safety and Health Act of 1970 must maintain for each establishment a log of all recordable occupational injuries and illnesses. This form (OSHA No. 200) may be used for that purpose. A substitute for the OSHA No. 200 is acceptable if it is detailed, easily readable, and understandable as the OSHA No. 200.

Enter each recordable case on the log within six (6) workdays after learning of its occurrence. Although other records must be maintained at the establishment to which they refer, it is possible to prepare and maintain the log at another location, using data processing equipment if desired. If the log is prepared elsewhere, a copy updated to within 45 calendar days must be present at all times in the establishment.

Logs must be maintained and retained for five (5) years following the end of the calendar year to which they relate. Logs must be available (monthly at the establishment) for inspection and copying by representatives of the Department of Labor, or the Department of Health and Human Services, or States accorded jurisdiction under the Act. Access to the log is also provided to employees, former employees and their representatives.

## II. Changes in Extent of or Outcome of Injury or Illness

If, during the 5 year period the log must be retained, there is a change in an extent and outcome of an injury or illness which affects entries in columns 1, 2, 6, 8, 9, or 13, the first entry should be lined out and a new entry made. For example, if an injured employee at first required only medical treatment but later lost workdays away from work, the check in column 6 should be lined out, and checks entered in columns 2 and 3 and the number of lost workdays entered in column 4.

In another example, if an employee with an occupational illness lost workdays, returned to work, and then died of the illness, any entries in columns 9 through 12 should be lined out and the date of death entered in column 8.

The entire entry for an injury or illness should be lined out if later found to be nonrecordable. For example, an injury which is later determined not to be work related, or which was initially thought to involve medical treatment but later was determined to have involved only first aid.

## III. Posting Requirements

A copy of the totals and information following the fold line of the last page for the year must be posted at each establishment in the place or places where notices to employees are customarily posted. This copy must be posted no later than **February 1 and must remain in place until March 1.**

Even though there were no injuries or illnesses during the year, zeros must be entered on the totals line, and the form posted.

The person responsible for the **annual summary totals** shall certify that the totals are true and complete by signing at the bottom of the form.

## IV. Instructions for Completing Log and Summary of Occupational Injuries and Illnesses

**Column A** — CASE OR FILE NUMBER. Self-explanatory.

**Column B** — DATE OF INJURY OR ONSET OF ILLNESS.

For occupational injuries, enter the date of the work accident which resulted in injury. For occupational illnesses, enter the date of initial diagnosis of illness, or, if absence from work occurred before diagnosis, enter the first day of absence attributable to the illness which was later diagnosed or recognized.

**Columns C through F** — Self-explanatory.

**Columns 1 and 8** — INJURY OR ILLNESS RELATED DEATHS. Self-explanatory.

**Columns 2 and 9** — INJURIES OR ILLNESSES WITH LOST WORKDAYS. Self-explanatory.

Any injury which involves days away from work, or days of restricted work activity, or both must be recorded since it always involves one or more of the criteria for recordability.

**Columns 3 and 10** — INJURIES OR ILLNESSES INVOLVING DAYS AWAY FROM WORK. Self-explanatory.

**Columns 4 and 11** — LOST WORKDAYS—DAYS AWAY FROM WORK.

Enter the number of workdays (consecutive or not) on which the employer would have worked but could not because of occupational injury or illness. The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

**NOTE:** For employees not having a regularly scheduled shift, such as certain truck drivers, construction workers, farm labor, casual labor, part-time employees, etc., it may be necessary to estimate the number of lost workdays. Estimates of lost workdays shall be based on prior work history of the employee AND days worked by employees, not ill or injured, working in the department and/or occupation of the ill or injured employee.

**Columns 5 and 12** — LOST WORKDAYS—DAYS OF RESTRICTED WORK ACTIVITY.

Enter the number of workdays (consecutive or not) on which because of injury or illness:

- (1) the employee was assigned to another job on a temporary basis, or
- (2) the employee worked at a permanent job less than full time, or
- (3) the employee worked at a permanently assigned job but could not perform all duties normally connected with it.

The number of lost workdays should not include the day of injury or onset of illness or any days on which the employee would not have worked even though able to work.

**Columns 6 and 13** — INJURIES OR ILLNESSES WITHOUT LOST WORKDAYS. Self-explanatory.

**Columns 7a through 7g** — TYPE OF ILLNESS. Enter a check in only one column for each illness.

**TERMINATION OR PERMANENT TRANSFER**—Place an asterisk to the right of the entry in columns 7a through 7g (type of illness) which represented a termination of employment or permanent transfer.

## V. Totals

Add number of entries in columns 1 and 8.  
Add number of checks in columns 2, 3, 6, 7, 9, 10, and 13.  
Add number of days in columns 4, 5, 11, and 12.  
Yearly totals for each column (1-13) are required for posting. Running or page totals may be generated at the discretion of the employer.

If an employee's loss of workdays is continuing at the time the totals are summarized, estimate the number of future workdays the employee will lose and add that estimate to the workdays already lost and include this figure in the annual totals. No further entries are to be made with respect to such cases in the next year's log.

## VI. Definitions

**OCCUPATIONAL INJURY** is any injury such as a cut, fracture, sprain, amputation, etc., which results from a work accident or from an exposure involving a single incident in the work environment.

**NOTE:** Conditions resulting from animal bites, such as insect or snake bites or from one-time exposure to chemicals, are considered to be injuries.

**OCCUPATIONAL ILLNESS** is an employee's any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or diseases which may be caused by inhalation, absorption, ingestion, or direct contact.

The following listing gives the categories of occupational diseases and disorders that will be utilized for the purpose of classifying recordable illnesses. For purposes of information, examples of each category are given. These are typical examples, however, and are not to be considered the complete listing of the types of illnesses and disorders that are to be counted under each category.

## 7a. Occupational Skin Diseases or Disorders

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants, oil acne, chemical ulcers, chemical burns or inflammations, etc.

## 7b. Dust Diseases of the Lungs (Pneumoconioses)

Examples: Silicosis, asbestosis and other asbestos-related diseases, coal worker's pneumoconiosis, byssinosis, siderosis, and other pneumoconioses.

## 7c. Respiratory Conditions Due to Toxic Agents

Examples: Pharyngitis, pharyngitis, rhinitis or acute congestion due to chemicals, dusts, gases, or fumes; farmer's lung, etc.

## 7d. Poisoning (Systemic Effect of Toxic Materials)

Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays such as parathion; lead arsenate; poisoning by other chemicals such as formaldehyde, plastics, and resins, etc.

## 7e. Disorders Due to Physical Agents (Other than Toxic Materials)

Examples: Heatstroke, sunstroke, heat exhaustion, and other effects of environmental heat; freezing, frostbite, and effects of exposure to low temperatures; cataract disease, effects of ionizing radiation (isotopes, X-rays, radium); effects of nonionizing radiation (welding flash, ultraviolet rays, microwave, sunburn), etc.

## 7f. Disorders Associated With Repeated Trauma

Examples: Noise-induced hearing loss, tendonitis, tenosynovitis, and bursts; Raynaud's phenomena, and other conditions due to repeated motion, vibration, or pressure.

## 7g. All Other Occupational Illnesses

Examples: Anthrax, brucellosis, infectious hepatitis, malignant and benign tumors, food poisoning, histoplasmosis, candidiasis, mononucleosis, etc.

**MEDICAL TREATMENT** includes treatment (other than first aid) administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does NOT include first aid treatment (first-aid treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care) even though provided by a physician or registered professional personnel.

**ESTABLISHMENT.** A single physical location where business is conducted or where services or industrial operations are performed (for example, a factory, mill, store, hotel, restaurant, movie theater, farm, ranch, bank, sales office, warehouse, or central administrative office). Where distinctly separate activities are performed at a single physical location, such as construction activities operated from the same physical location as a building yard, each activity shall be treated as a separate establishment.

For firms engaged in activities which may be physically dispersed, such as agriculture, construction, transportation, communications, and electric, gas, and sanitary services, records may be maintained at a place to which employees report each day.

Records for personnel who do not primarily report or work at a single establishment, such as traveling salesmen, technicians, engineers, etc., shall be maintained at the location from which they are paid or the base from which personnel operate to carry out their activities.

**WORK ENVIRONMENT** is comprised of the physical location, equipment, materials processed or used, and the kinds of operations performed in the course of an employee's work, whether on or off the employer's premises.

# job safety and health protection

The Occupational Safety and Health Act of 1970 provides job safety and health protection for workers through the promotion of safe and healthful working conditions throughout the Nation. Requirements of the Act include the following:

**Employers:** Each employer shall furnish to each of his employees employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious harm to his employees; and shall comply with occupational safety and health standards issued under the Act.

**Employees:** Each employee shall comply with all occupational safety and health standards, rules, regulations and orders issued under the Act that apply to his own actions and conduct on the job.

The Occupational Safety and Health Administration (OSHA) of the Department of Labor has the primary responsibility for administering the Act. OSHA issues occupational safety and health standards, and its Compliance Safety and Health Officers conduct jobsite inspections to ensure compliance with the Act.

**Inspection:** The Act requires that a representative of the employer and a representative authorized by the employees be given an opportunity to accompany the OSHA inspector for the purpose of aiding the inspection.

Where there is no authorized employee representative, the OSHA Compliance Officer must consult with a reasonable number of employees concerning safety and health conditions in the workplace.

**Complaint:** Employees or their representatives have the right to file a complaint with the nearest OSHA office requesting an inspection if they believe unsafe or unhealthful conditions exist in their workplace. OSHA will withhold, on request, names of employees complaining.

The Act provides that employees may not be discharged or discriminated against in any way for filing safety and health complaints or otherwise exercising their rights under the Act.

An employee who believes he has been discriminated against may file a complaint with the nearest OSHA office within 30 days of the alleged discrimination.

**Citation:** If upon inspection OSHA believes an employer has violated the Act, a citation alleging such violations will be issued to the employer. Each citation will specify a time period within which the alleged violation must be corrected.

The OSHA citation must be prominently displayed at or near the place of alleged violation for three days, or until it is corrected, whichever is later, to warn employees of dangers that may exist there.

**Proposed Penalty:** The Act provides for mandatory penalties against employers of up to \$1,000 for each serious violation and for optional penalties of up to \$1,000 for each nonserious violation. Penalties of up to \$1,000 per day may be proposed for failure to correct violations within the proposed time period. Also, any employer who willfully or repeatedly violates the Act may be assessed penalties of up to \$10,000 for each such violation.

Criminal penalties are also provided for in the Act. Any willful violation resulting in death of an employee, upon conviction, is punishable by a fine of not more than \$10,000 or by imprisonment for not more than six months, or by both. Conviction of an employer after a first conviction doubles these maximum penalties.

**Voluntary Activity:** While providing penalties for violations, the Act also encourages efforts by labor and management, before an OSHA inspection, to reduce injuries and illnesses arising out of employment.

The Department of Labor encourages employers and employees to reduce workplace hazards voluntarily and to develop and improve safety and health programs in all workplaces and industries.

Such cooperative action would initially focus on the identification and elimination of hazards that could cause death, injury, or illness to employees and supervisors. There are many public and private organizations that can provide information and assistance in this effort, if requested.

**More Information:** Additional information and copies of the Act, specific OSHA safety and health standards, and other applicable regulations may be obtained from your employer or from the nearest OSHA Regional Office in the following locations:

Atlanta, Georgia  
Boston, Massachusetts  
Chicago, Illinois  
Dallas, Texas  
Denver, Colorado  
Kansas City, Missouri  
New York, New York  
Philadelphia, Pennsylvania  
San Francisco, California  
Seattle, Washington

Telephone numbers for these offices, and additional Area Office locations, are listed in the telephone directory under the United States Department of Labor in the United States Government listing.

Washington, D.C.  
1976  
OSHA 2203

W. J. Usery, Jr.  
Secretary of Labor

U. S. Department of Labor  
Occupational Safety and Health Administration





# SEGURIDAD Y PROTECCION DE LA SALUD EN EL EMPLEO

La Ley Williams-Steiger de 1970 para la Seguridad y Salud Ocupacionales ofrece seguridad y protección de la salud en el empleo a los trabajadores. El propósito de esta ley federal es garantizar condiciones de trabajo seguras y saludables en todo el país.

El Departamento del Trabajo de los Estados Unidos tiene la responsabilidad principal de administrar esta Ley. El Departamento dispone normas de seguridad y salud en el empleo, y los patronos, así como los empleados y obreros, deben obedecer y cumplir con dichas normas.

## POR LEY: ¡LA SEGURIDAD EN EL EMPLEO ES LA RESPONSABILIDAD DE TODOS!

**PATRONOS:** La Ley Williams-Steiger exige que cada patrono ofrezca a sus trabajadores un lugar de empleo libre de riesgos evidentes que pudieran causar heridas graves o la muerte; además, la Ley exige que los patronos obedezcan las normas específicas de seguridad y salud que emita el Departamento del Trabajo.

**EMPLEADOS:** La Ley Williams-Steiger también exige que cada trabajador obedezca las normas, reglas, reglamentos y órdenes de seguridad y salud que sean emitidas conforme a esta Ley y que se apliquen a su propia conducta.

## CUMPLIMIENTO DE LOS REQUISITOS SOBRE SEGURIDAD Y SALUD

Para garantizar el cumplimiento de los requisitos sobre seguridad y salud, el Departamento del Trabajo inspecciona periódicamente los lugares de empleo. Las inspecciones son hechas por funcionarios preparados en materia de seguridad y salud. La ley dispone que se dé la oportunidad a un representante del patrono y a un representante de los trabajadores de acompañar al inspector a fines de ayudarlo a realizar la inspección. Los trabajadores también tienen el derecho de notificar al Departamento del Trabajo solicitando que se lleve a cabo una inspección si opinan que existen condiciones insalubres o falta de seguridad en su lugar de empleo. Además, los empleados tienen el derecho de señalar condiciones de faltas de seguridad en materia de seguridad y salud al funcionario que lleve a cabo la inspección. Si después de realizar la inspección el Departamento del Trabajo opina que se ha cometido una infracción a la Ley, le enviará al patrono un aviso de infracción indicando la multa propuesta.

Los avisos de infracción emitidos por el Departamento del Trabajo tendrán que colocarse a la vista en forma destacada en o cerca del lugar donde se cometió la infracción.

La Ley dispone la aplicación obligatoria de multas de hasta 1.000 dólares por cada infracción grave y multas opcionales de hasta 1.000 dólares por cada infracción de menor grado. Las multas de hasta 1.000 dólares se aplicarán para cada día en el que el patrono no haya subsanado la infracción dentro del plazo indicado en el aviso. Asimismo, todo patrono que a sabidas o repetidas veces comete infracciones de la Ley se verá sujeto a multas de tipo civil que no excederán de 10.000 dólares por cada infracción.

La Ley también dispone castigos de tipo penal. Toda infracción intencionada que resulte en la muerte de un empleado quedará sujeta, una vez que se rinda un veredicto de culpabilidad, a una multa máxima de 10.000 dólares y a una condena máxima de seis meses de cárcel, o ambas. De hallarse culpable a un patrono por segunda vez, quedará sujeto a una condena equivalente al doble de los anteriores castigos.

La Ley dispone que ningún empleado u obrero será despedido ni sufrirá discriminación alguna por haber presentado quejas sobre seguridad o salud, o por haber ejercido sus derechos según esta Ley.

Para mayor información y asistencia, así como para obtener copias de la Ley o de normas específicas sobre seguridad y salud, consulte con su patrono o con la oficina más cercana del Departamento del Trabajo.



*L. B. Hoover*



# Appendix A 20

NAME (Last, First, M I.)		CONTRACT NUMBER		CIRCLE ONE NUMBER IN EACH OF THE EIGHT SECTIONS BELOW FOR APPLICABLE INFORMATION			
SOCIAL SECURITY NUMBER		LOST WORK DAYS		1-WORKER/CLASSIFICATION	4-CRAFT	5-WORK PHASE	7-APPROXIMATE AGE
		ESTIMATED	ACTUAL				
DATE OF INJURY	DATE REPORTED	DATE RETURNED/WORK		2-TYPE OF INJURY			8-TIME OF INJURY
PROJECT ADDRESS				3-TYPE OF ACCIDENT			
DESCRIPTION OF INJURY							
NAME OF SUPERVISOR(S)		MK FORM CAS 6/2/81					
Foreman		INJURY CARD					
Superintendent							

NAME (Last, First, M I.)		CONTRACT NUMBER		CIRCLE ONE NUMBER IN EACH OF THE EIGHT SECTIONS BELOW FOR APPLICABLE INFORMATION				
SOCIAL SECURITY NUMBER		LOST WORK DAYS			1-WORKER/CLASSIFICATION	4-CRAFT	5-WORK PHASE	7-APPROXIMATE AGE
		EST	ACTUAL	ADJ				
DATE OF INJURY	DATE REPORTED	DATE RETURNED/WORK		2-TYPE OF INJURY			8-TIME OF INJURY	
PROJECT ADDRESS				3-TYPE OF ACCIDENT				
DESCRIPTION OF INJURY								
NAME OF SUPERVISOR(S)		MK FORM CAS 6/1/81						
Foreman		CORRECTION CARD						
Superintendent								



**MORRISON-KNUDSEN COMPANY, INC.**  
FORM CAS-10/81

## SAFETY AWARD APPLICATION

NAME (Please print)		LAST	FIRST	M I.	SOCIAL SECURITY NUMBER	
CONTRACT NO.	CONTRACT LOCATION	JOB TITLE PAYROLL CLASSIFICATION			ELIGIBILITY PERIOD	
					DATE FROM	DATE TO

I HEREBY MAKE APPLICATION FOR A SAFETY AWARD AND CERTIFY THAT THE ABOVE EMPLOYMENT RECORD IS CORRECT, AND THAT NO LOST TIME INJURY TO MYSELF, A FELLOW EMPLOYEE UNDER MY SUPERVISION, OR DAMAGE TO EQUIPMENT OF WHICH I WAS THE OPERATOR OCCURRED DURING THE 12 CONSECUTIVE MONTHS OF WORK OUTLINED ABOVE.

THE ABOVE APPLICATION APPROVED

	FOREMAN	
	SUPERINTENDENT	APPLICANT'S SIGNATURE
	PROJECT MANAGER	SAFETY SUPERVISOR/REPRESENTATIVE
	VERIFIED BY	

# EMERGENCY PHONE NUMBERS

PHYSICIAN \_\_\_\_\_ or \_\_\_\_\_

HOSPITAL \_\_\_\_\_ or \_\_\_\_\_

AMBULANCE \_\_\_\_\_ or \_\_\_\_\_

FIRE DEPARTMENT \_\_\_\_\_ or \_\_\_\_\_

POLICE \_\_\_\_\_ or \_\_\_\_\_



**MORRISON-KNUDSEN COMPANY, INC.**  
CONTRACTORS - ENGINEERS - DEVELOPERS  
HEADQUARTERS OFFICE: BOISE, IDAHO



APPENDIX B

Job Safety Analysis

REV. NO.	0
PAGE NO.	64



APPENDIX C

Project Forms and Distribution Table

Appendix C

PROJECT FORMS AND DISTRIBUTION TABLE

<u>Form #</u>	<u>Form Title</u>	<u>Form Completed By</u>	<u>Form Distribution</u>
Each state has their own No.	Employers First Report of Injury (notice of injury and claim for benefits)	The Employer of the injured Employee	Original & one copy to Insurance Company. One copy to RAC Safety Department Albuquerque. One copy to Employer File (within 72 hours)
M-K Form CAS-8	Daily First Aid Treatment Record	Set-up by Subcontractor Completed by person rendering first aid	Original each month to the RAC Safety Department in Albuquerque. One copy retained by the subcontractor (Submittal within 5 days of month end)
OSHA Form No. 200	Log of Occupational Injuries & Illnesses	The Employer of the injured Employee (Recordable Cases)	It must be maintained at the work site readily available for review by anyone with jurisdictional authority.
DOE Form F5484.X	Report of Occupational Injury/Illness, Property Damage or Motor Vehicle Accident	The Employer of the injured Employee; the subcontractor responsible for property damage	Original and one copy to the Remedial Action Contractor Construction Safety and Health Manager in Albuquerque, NM (within 72 hour)
DOE Form F5484.Y	Quarterly Tabulation of Vehicle Usage, Work Hours Tort Claims, and Property Valuation	All subcontractors and the RAC	Original and one copy to the Remedial Action Contractor Subcontract Administrator in Albuquerque by the 10th following the quarter end.

PROJECT FORMS AND DISTRIBUTION TABLE

<u>Form I</u>	<u>Form Title</u>	<u>Form Completed By</u>	<u>Form Distribution</u>
M-K Form CAS-24	Supervisors Accident Investigation Report	For fatalities, lost work day, recordable and near miss cases by the employees immediate supervisor	The original report must be transmitted to RAC Safety Department as soon as possible but not to exceed 72 hours.
OSHA Form No. 2203	Occupational Safety and Health Protection (Poster)	Nothing to complete It is the responsibility of the subcontractor to post	This poster must be posted at the work site for all employees to see.
DOE Form EV-627	Occupational Safety and Health Protection (Poster)	Nothing to complete It is the responsibility of the subcontractor to post	This poster must be posted at the work site for all employees to see.
OSHA Form No. 200	Summary Portion from Log of Occupational Injuries & Illnesses	The Employer of the Employees at the work site.	The summary portion of OSHA 200 log must be posted for 30 days following the calender year end between Feb. 1st and Mar. 1st at the site.
M-K Form CAS-22	Emergency Poster	The Remedial Action Contractor and the Subcontractor	The poster has emergency phone numbers on it for ready reference in case of emergency and must be posted.
M-K Form CAS-11	Weekly Saftey Training Meetings	Subcontractor with employees attending names or signatures	The original form must be trans- mitted to the Remedial Action Contractor Safety Department in Albuquerque, NM.

PROJECT FORMS AND DISTRIBUTION TABLE

<u>Form #</u>	<u>Form Title</u>	<u>Form Completed By</u>	<u>Form Distribution</u>
M-K Form CAS-21	Safety Violation Notice	Remedial Action Contractor Personnel	Original issued to Subcontractor; one copy for project site file for follow-up; and one copy to the RAC Safety Department, Albuquerque, NM.
M-K Form CAS-6/2 CAS-6/1	Injury Card Correction Card	Completed By Construction Safety & Health Manager For M-K Personnel	The original to M-K Corporate Safety Department with copy to project files.
M-K Form CAS-9	Formal Accident Investigation Package	Completed by the RAC Construction Safety & Health Manager or Representative	As instructions state in the packets.
M-K Form CAS-10	Safety Award Application (M-K Employees) only)	Completed by each M-K Employee	The card is submitted by the employee to the RAC Construction Safety Health Manager.
DOE 5484.2 Attachment 2	Unusual Occurrence Report Format	Completed by the RAC Construction Safety & Health Manager or Representative	As instructions state in DOE 5484.2 attachment 2.
M-K Form CAS-19	Noise Survey	Completed by the RAC Construction Safety & Health Manager or Representative	RAC Safety Department Project File.



PROJECT FORMS AND DISTRIBUTION TABLE

<u>Form 3</u>	<u>Form Title</u>	<u>Form Completed By</u>	<u>Form Distribution</u>
EG&G SSDC CAIRS 300	Transmittal of DOE F5484.X & Y	Completed by the RAC Construction Safety & Health Manager or Representative	Form with appropriate attachments to SSDL EG&G, Inc. P.O. Box 1626 Idaho Falls, ID 83415



**MORRISON-KNUDSEN COMPANY, INC.**

UMTRA PROJECT OFFICE  
P.O. BOX 9136  
ALBUQUERQUE, NEW MEXICO 87119