

Office of Environmental Management – Grand Junction



Emergency Response Plan



U.S. Department
of Energy

Office of Environmental Management

Summary of Changes

The Emergency Response Plan has been revised to replace Jeff Warga with Tom Guthrie as Acting Emergency Response Coordinator.

The Signature Page has been moved to the end of the Table of Contents.

Table 2–1, Emergency Response Key Personnel/Agencies and Contact Information, has been updated to include Tom Guthrie as Acting Emergency Response Coordinator.

The Table of Contents has been updated to reflect the change.

Moab UMTRA Project

Emergency Response Plan

Work Performed by S.M. Stoller Corporation under DOE Contract No. DE-AC01-02GJ79491
for the U.S. Department of Energy Office of Environmental Management,
Grand Junction, Colorado

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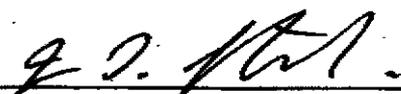
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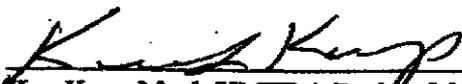
Signatures


 Tom Guthrie, Acting Emergency Response Coordinator
 Date 7/9/07


 Michael R. Hurshman, Health and Safety Lead
 Date 7/3/07


 Irwin Stewart, Moab Site Manager
 Date 7/3/07


 Jim Erickson, Crescent Junction Site Manager
 Date 7-10-07


 Ken Karp, Moab UMTRA Project Manager
 Date 7-2-07

1.0 Background

1.1 Purpose

This plan is intended to minimize adverse impacts on the safety and health of U.S. Department of Energy (DOE), Contractor and subcontractor personnel, and the public from an emergency or unusual occurrence during performance of work under the Moab Uranium Mill Tailings Remedial Action (UMTRA) Project. It outlines the actions to be taken and the roles and responsibilities of key personnel in the event of an emergency.

1.2 Project Description

The remediation of the Moab, Utah, mill tailings site, an UMTRA Project site, involves two primary activities: the transportation of mill tailings and contaminated soils and debris to a planned disposal site in Crescent Junction, Utah, and the cleanup of contaminated ground water at the Moab site.

1.3 Scope

This Emergency Response Plan (ERP) is applicable to emergencies that may occur at the Moab Project Site, the Crescent Junction Site, and while traveling and transporting material between these sites. This ERP contains Emergency Action Plans for:

- Fires
- Medical Emergencies
- Floods
- Public Disturbances

Hazardous materials response, as defined in the *U.S. Code of Federal Regulations* (29 CFR 1910.120 [q]), is outside the scope of this plan. Emergency response guidance for spills of hazardous or radioactive materials is provided in the *Moab Project Health and Safety Plan* (DOE-EM/GJ1038-2005) Section 13.0, "Spill Response Plan."

1.4 General Information

In the event of an emergency, site workers shall immediately notify the Moab or Crescent Junction Site Manager and the Project Safety Coordinator to report the emergency. Whatever means available shall be used to make the notification.

2.0 Emergency Response Key Personnel/Agencies

This section identifies the personnel and agencies that are crucial to handling an emergency and provides contact phone numbers. This section also identifies Key Personnel responsibilities.

Table 2–1 Emergency Response Key Personnel/Agencies and Contact Information

Key Person/Agency	Contact Name	Work Phone No.
DOE Moab Federal Project Director	Don Metzler	970-248-7612 240-676-2715 (cell)
DOE Public Affairs Specialist	Don Metzler	970-248-7612
Contractor Public Affairs Lead	Wendee Ryan	970-248-6765
Project Manager	Ken Karp	970-248-6564
Moab Site Manager (Emergency Response Director)	Irwin Stewart	435-259-5131 970-640-3188 (cell)
Crescent Junction Site Manager (Emergency Response Director)	Jim Erickson	970-248-6395 303-895-1489 (cell)
Project Safety Coordinator	Tom Guthrie	435-259-4892
Acting Emergency Response Coordinator		435-260-6055 (cell – work) 970-255-9268 (cell – personal)
Environmental Compliance Lead	Ed Baker	970-248-6566
Moab/Thompson Springs Fire Department	Corky Brewer, Fire Chief	911
Grand County Sheriff's Department	Sheriff's Dispatcher	911
Grand County Emergency Medical Services (EMS)	Jeff Davis, Director	911
Hospital	Allen Memorial	435-259-7191
Weather Data	National Weather Service (Salt Lake)	801-524-5133

2.1 Key Personnel Responsibilities

2.1.1 DOE Public Affairs Specialist (Moab Federal Project Director)

- Serve as the primary spokesperson for DOE for the Moab UMTRA Project.
- Obtain DOE emergency manager and emergency director approvals prior to issuing news releases.
- Provide interface between DOE and the media.
- Notify DOE Project and Headquarters offices of emergency conditions, classifications, and status, as required.

2.1.2 Contractor Public Affairs Lead

- Serve as the primary spokesperson for the Contractor for the Moab UMTRA Project.
- Obtain DOE Public Affairs Specialist approvals prior to issuing news releases.

2.1.3 Project Manager

Interface with the Moab and Crescent Junction site organizations, Contractor management, and DOE personnel.

2.1.4 Site Manager (Emergency Response Director)

- Maintain executive control of emergency situations on site.
- Direct emergency response actions using personnel and resources to mitigate the consequences of the emergency.
- Authorize site-wide evacuation of personnel.
- Maintain site personnel accountability.
- Maintain a Contractor succession of authority.
- Classify abnormal site conditions and activities.
- Ensure that the DOE Headquarters Emergency Operations Center is promptly notified of emergency situations within 15 minutes after categorizing the event as an emergency.
- Protect the safety and health of the public and site personnel.

2.1.5 Project Safety Coordinator

- Advise the Emergency Response Director on the health and safety aspects of an emergency condition or event.
- Assist the Site Manager with emergency response actions.
- Provide a current inventory of chemicals and hazardous substances/materials/wastes stored on site and identify storage locations to Off-Site Response Organizations.

2.1.6 Emergency Response Coordinator

- Assist the Site Manager with emergency response actions.
- Develop, implement, and update the Emergency Response Plan.
- Ensure that pertinent emergency information is adequately communicated to site personnel via training, briefings and postings.
- Coordinate emergency response activities with Off-Site Response Organizations.
- Ensure that emergency response communications systems are available and operational.
- Plan and conduct training, drills, and other emergency preparedness activities.
- Maintain records of emergency response events, including Post-Emergency Response Incident Investigation reports for emergency response improvement and noteworthy practices.

2.1.7 Environmental Compliance Lead

The Environmental Compliance Lead ensures that in the event of a release or spill of regulated materials, the appropriate regulatory agencies are notified when required.

3.0 Off-Site Response Organizations

Because of the limited resources available for the project, outside agencies will be utilized to assist with response to an emergency. This section identifies the emergency services that each of the Off-Site Response Organizations will provide at the DOE project sites in Moab and Crescent Junction, Utah, and for emergencies which may occur while traveling or transporting material between these sites. It also identifies DOE responsibilities and cost-reimbursement commitment to these organizations.

3.1 Moab/Thompson Springs Fire Department

- Fire protection, hazardous materials emergency response, and all other emergency services consistent with reasonable and prudent industrial emergency management practices.
- Emergency coordination for all emergency services that might be required by DOE and its Contractor.

3.2 Grand County Emergency Medical Services (EMS)

- Emergency medical services for all injured or ill DOE, Contractor, subcontractor, and vendor employees and site visitors.
- Ambulance or helicopter transportation of injured personnel to medical facilities from DOE property.

3.3 Grand County Sheriff's Department

- Law enforcement protection, emergency response, and all other law enforcement services consistent with reasonable and prudent law enforcement practices.
- Coordination for emergency law enforcement services that might be required by DOE and its Contractor.
- A suitable area or other accommodations for use as an Emergency Operations Center if requested by DOE.

3.4 Allen Memorial Hospital

- Medical treatment of injured personnel.
- Radiological decontamination of injured personnel.

3.5 Department of Energy (DOE)

- Provide all reasonably available resources, including information and technical assistance and expertise, to the fire department, EMS, sheriff's office, or hospital necessary to mitigate the effects of any emergency that may arise at the facility, and to protect the health, safety, and environmental impacts occasioned by all spills, leaks, fires, floods, or other natural or non-natural acts, incidents, breaches, damages, or events at the DOE facilities in

Grand County, and with DOE approval, at other locations where the fire department has determined that an imminent danger exists. Such resources shall be deployed at the direction of the fire department incident command staff.

- Provide access to DOE property for all personnel and equipment required for emergency response, including fire department equipment, police vehicles, ambulances, flight for life helicopters, etc.
- Decontaminate or replace any equipment contaminated with any hazardous substances (as defined in 42 U.S.C. §9601[14]) or radioactive materials as a result of an emergency response. The decision to replace rather than decontaminate equipment shall be made solely at the discretion of DOE based upon a determination of the most cost-effective option. Replacement costs shall be based upon the fair market value of the contaminated equipment. Decontamination facilities shall also be provided for all emergency response personnel.

3.6 Reimbursement for Response Organizations

Response organizations reserve the right to claim reimbursement for the reasonable and documented costs resulting from extraordinary emergency response actions taken to assist DOE in removing, containing, or otherwise mitigating the effects of an incident involving hazardous substances (as defined in 42 U.S.C. § 9601 [14]) or radioactive materials.

4.0 Contingency Planning and Training

4.1 Contingency Planning

The objective of contingency planning is to be prepared to safely respond to anticipated emergencies before they occur and before activities involving hazardous materials and wastes begin. Contingency planning also ensures that this Emergency Response Plan is compatible with the emergency response plans and capabilities of the local emergency response service organizations. The Federal Project Director, Project Manager and Emergency Response Coordinator will determine the methods by which emergency planning issues are coordinated with local emergency response organizations.

4.2 Training

The following training shall be provided to subject personnel:

- The Moab Project Site Pre-Entry Briefing, required for all site workers, shall include information on basic emergency response procedures.
- Visitors shall receive training on emergency alarms and evacuation procedures, and shall be escorted at all times by a qualified host.
- Vendor Safety Briefings, required for all unescorted vendors, shall include information on emergency alarms and evacuation procedures.
- Off-Site Response Organization personnel shall be offered training on pertinent information regarding hazards present at the sites, the types of injuries and illnesses which could result from contamination by contact, ingestion, or inhalation of radioactive or hazardous substances, and/or personal or environmental injury or contamination risks that may occur because of fire, explosion, or other releases. This training along with a site tour shall be offered at least annually.

5.0 Emergency Notifications and Evacuations

5.1 Notifications

- Personnel shall immediately notify the Site Manager or Project Safety Coordinator of any situation that may constitute an emergency or require emergency response actions.
- The Site Manager shall notify the Project Manager and the Project Safety Coordinator.
- All notifications to agencies and organizations other than the Contractor and DOE shall be approved by and coordinated through the Project Manager and the DOE Public Affairs Specialist.

5.2 Reporting Requirements

- All emergencies must be reported using the Incident/Safety Report (GJ 1743e) regardless of the nature of the emergency involved.
- The Project Manager and the Emergency Response Coordinator shall classify the emergency and verbally report it to Contractor management and DOE in accordance with the criteria in the *Health and Safety Manual* (STO 2), Standard 4.1, "Occurrence Reporting and Processing of Operations Information."

5.3 Emergency Alarms and Warning Signals

Emergency alarms, warning signals, and communication systems must be tested at least annually.

Table 5-1. Emergency Alarms and Warning Signals

Emergency	Alarm or Warning Signal	Action To Be Taken
Evacuation	<p>Primary Warning Signal With an air horn or vehicle horn, three (3) 10-second blasts with a 5-second pause in between. Repeat at least three (3) times.</p> <p>Secondary Warning Signal Two-way radio announcement.</p>	<ol style="list-style-type: none">1. Immediately evacuate the affected area.2. Proceed to the designated Assembly Area.3. Await further instructions.

5.4 Evacuation Routes

The following guidelines shall be used for establishing emergency evacuation routes:

- Locate evacuation routes upwind of the Contamination Area (Exclusion Zone), whenever possible.
- Establish an evacuation route through the access control point.
- Ensure that the primary and alternate routes are adequately separated from each other.
- Ensure evacuation routes are kept free of obstruction.

- Rehearse evacuation routes.

5.5 Assembly Areas

5.5.1 Moab Site Assembly Areas

- Personnel inside the Contamination Area shall assemble at the Access Control Trailer and await further instructions.
- Personnel outside the Contamination Area shall assemble in the main parking lot.
- Personnel in the Well Field shall assemble at the access road south gate.

5.5.2 Crescent Junction Site Assembly Area

Personnel shall assemble in the main parking lot.

5.6 Personnel Accountability

Personnel accountability during emergencies involving an evacuation shall be performed to determine that all personnel are accounted for and are either safe or being appropriately attended to. The senior employee present at the Assembly Area is responsible for performing a personnel accountability check and immediately notifying the Site Manager if any personnel are unaccounted for.

5.7 Evacuation Procedure

1. Exit the building or affected area through the nearest available exit.
2. Help disabled or impaired persons to evacuate the affected area.
3. Go directly to the designated Assembly Area.
4. Do not eat, drink, smoke, or chew during the evacuation or in the Assembly Area.
5. The senior employee present shall perform a personnel accountability check. If any personnel are missing and unaccounted for, immediately notify the Site Manager.
6. Await further instructions from the Site Manager.

6.0 Emergency Action Plans

Immediate Actions are the responsibility of affected personnel. Supplemental Actions will be directed by Emergency Response Key Personnel (Table 2–1) and should be carried out as quickly as is reasonable after Immediate Actions are completed.

Immediate Actions may be performed in any sequence, depending on the occurrence. At no time shall an emergency response action be performed if on-scene personnel determine that it would be dangerous to persons in the area.

6.1 Fire Action Plan

6.1.1 Immediate Actions

1. Stop the cause of the fire (e.g., stop hot work, de-energize electrical equipment).
2. Warn others in the area using whatever means available (e.g., voice, car horn, radio).
3. Dial 911 to request fire department response. Provide information on any other hazards that are known to be present in the fire area (e.g., radioactive or chemical hazards, presence of volatile or combustible materials).
4. Isolate the affected area and establish control boundaries, if possible.
5. Move personnel upwind to a safe distance away from the affected area.
6. Notify the Site Manager or Project Safety Coordinator.

6.1.2 Supplemental Actions

1. Establish an access control point at a safe distance upwind from the fire area.
2. Remove and isolate personnel who may have initially responded to the fire in a hazardous materials area without appropriate personal protective equipment (PPE).
3. Decontaminate personnel as necessary in accordance with the *Health and Safety Procedures Manual* (STO 201), Procedure HS 330.04, “Personnel Skin and Clothing Decontamination.”
4. Obtain radiological and hazardous materials exposure monitoring data at the perimeter of the isolated fire area, when conditions permit, to determine the extent of any spread of hazardous materials outside the established control areas.
5. Refer to Section 5.2 of this ERP and follow applicable reporting requirements.
6. Develop a follow-up action plan for reentry and recovery of the affected area. The follow-up action plan must be documented and approved by the Project Safety Coordinator and the Project Manager.
7. Initiate the post-emergency response incident investigation process as outlined in Section 7.0 of this ERP.

6.2 Medical Emergency Action Plan

While all employees are responsible for Immediate Actions and are expected to carry out the Immediate Actions, no employee is required to provide First Aid for which he or she has not been trained or is uneasy about providing.

Never move a victim in need of medical assistance unless:

1. Directed by a competent medical authority,
2. The injury will obviously not be aggravated or complicated by a move, or
3. The victim is in a location where greater physical harm would be likely if not moved.

Never delay EMS personnel access in order to apply administrative controls or to prescribe PPE.

Decontamination of victims, EMS personnel, and any associated equipment and materials will be in proportion to the nature and severity of the medical emergency. This decision will be made by a competent medical authority in consideration of radioactive material and hazardous substance information provided by Health and Safety personnel.

Figure 6–1 identifies travel routes to Allen Memorial Hospital from each site.

6.2.1 Immediate Actions

1. **Stop** the cause of the medical emergency and all work activity in the immediate vicinity of the medical emergency.
2. **Warn** others in the area using whatever means available (e.g., voice, car horn, radio).
3. **Dial 911** to request EMS. Provide information on any other hazards that are known to be present in the area to be entered (e.g., radioactive or chemical hazards, presence of volatile or combustible materials).
4. **Notify** the Site Manager or Project Safety Coordinator.
5. **IF** the scene is safe to enter, commence providing First Aid until relieved by EMS personnel.

6.2.2 Supplemental Actions

1. Assign an employee to standby at the Site Access to inform and direct emergency response personnel.
2. Coordinate with EMS and the hospital to determine decontamination requirements and specify a helicopter landing area, as necessary.
3. **IF** the injured person is radiologically contaminated and will be transported to Allen Memorial Hospital, **THEN**:
 - a. Notify Allen Memorial Hospital.
 - b. Assign a Radiological Control Technician (RCT) with radiological survey instruments to travel with the injured person to the hospital.

- c. The RCT shall continuously monitor radiological conditions and advise hospital staff on measures to minimize cross-contamination throughout treatment of the injured person.
 - d. If it is determined by a competent medical authority that decontamination needs to be performed, the Allen Memorial Hospital Decontamination Team will perform decontamination while the RCT monitors radiological conditions and informs when decontamination is complete.
 - e. RCT's shall perform radiological surveys of hospital staff, facilities and equipment after treatment is complete, and will assist with decontamination as necessary.
4. Refer to Section 5.2 of this ERP and follow applicable reporting requirements.
 5. Initiate the post-emergency response incident investigation process as outlined in Section 7.0 of this ERP.

6.3 Flood Action Plan

The objective of the Flood Action Plan is to take actions that might reduce the consequences of a flood. Actions are directed at first protecting personnel safety and then protecting DOE property (including materials, buildings, and equipment).

The actions taken in the event of a flood will largely depend upon the amount of warning received before a flood actually occurs. In every case, personal safety shall have the highest priority.

Flood conditions could occur from a sustained period of rain or from runoff associated with rapid snow melt.

Upon receipt of information or forecast that a potential flood condition exists, the Site Manager will determine if a Flood Alert should be declared.

6.3.1 Flood Alert

A Flood Alert will constitute a warning that flood conditions are anticipated. Once a Flood Alert is declared, Emergency Response Key Personnel shall determine what actions are necessary to prepare personnel and equipment for a site evacuation in accordance with the following guidelines.

6.3.2 Immediate Actions

1. **NOTIFY** site personnel that a Flood Alert has been declared.
2. **MOVE** vehicles and equipment to high ground.
3. **IF** protection of the Moab Site Well Field is required **THEN** turn off the associated systems and apply Lockout/Tagout.

6.3.3 Supplemental Actions

1. Contact the National Weather Service and other appropriate agencies to determine the estimated intensity, timing, and possible duration of high water conditions.
2. Consider additional flood protection measures such as placement of sandbags.
3. Plan for protection or off-site transport of radioactive check sources and other controlled hazardous materials.
4. Refer to Section 5.2 of this ERP and follow applicable reporting requirements.
5. Initiate the post-emergency response incident investigation process as outlined in Section 7.0 of this ERP.

6.4 Public Disturbance Action Plan

Because the range and magnitude of public disturbances that may occur can vary greatly, the Site Manager must determine the appropriate response actions needed to safeguard DOE, Contractor, and subcontractor personnel and DOE property and equipment. The time interval between receipt of warning of a public disturbance and the occurrence of the event may vary from several days to no warning at all. Therefore, the priority with which the response actions are carried out will also vary greatly. A public disturbance is defined as a demonstration by activists or threat to DOE operations that is relative to a DOE or Contractor operation conducted as a part of the Moab UMTRA Project and which:

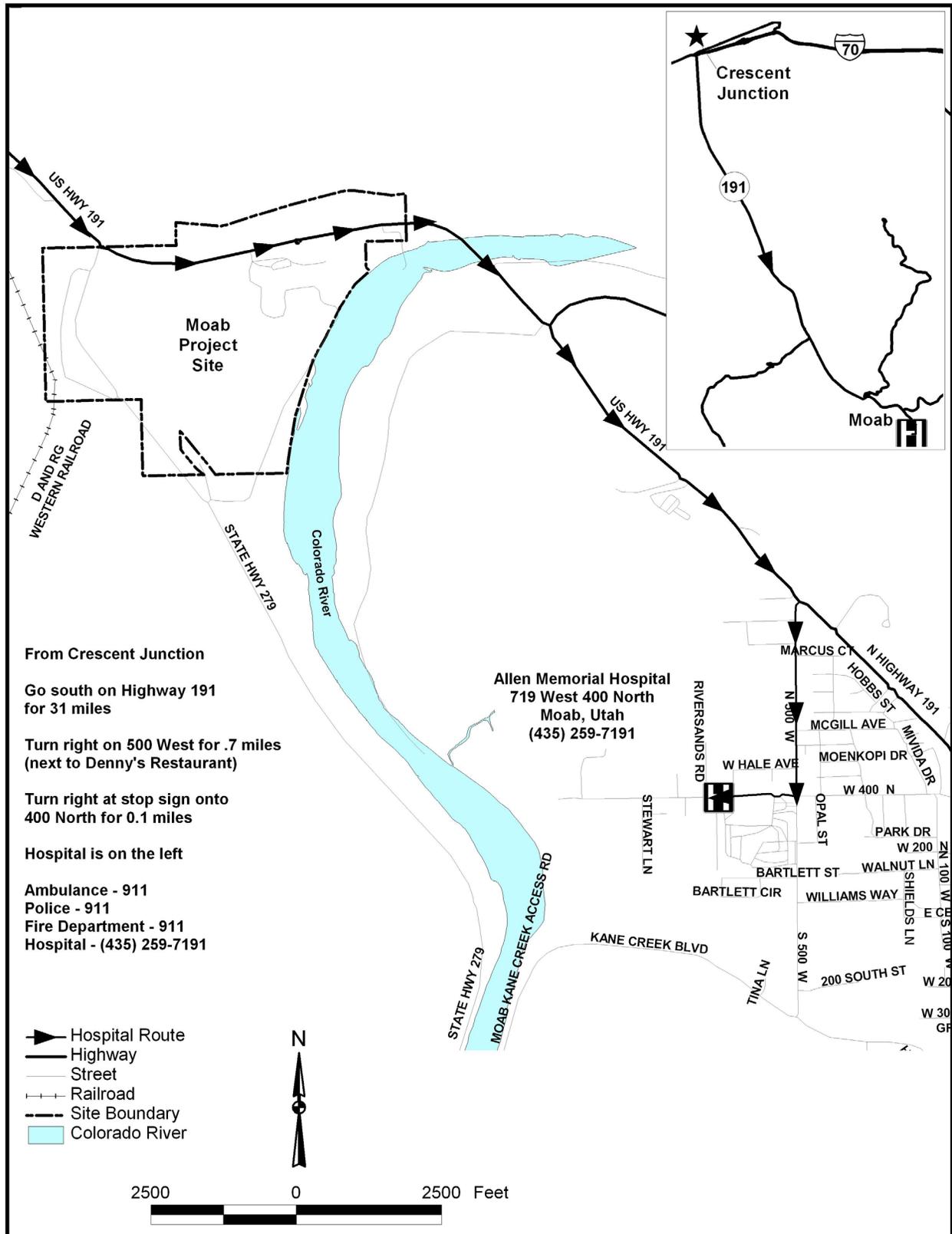
- Disrupts DOE, Contractor, or subcontractor operations.
- Adversely affects DOE or Contractor property.
- Jeopardizes the safety and health of DOE, Contractor, and subcontractor employees.
- Adversely affects the reputation or public image of DOE or the Contractor.

6.4.1 Immediate Actions

1. **ASSEMBLE** necessary Emergency Response Key Personnel.
2. **RECORD** the date, time, manner, and circumstances surrounding the identification or warning of a public disturbance.
3. **IF** DOE or Contractor property is being damaged or site personnel are in immediate danger, **THEN Dial 911** to request Sheriff's Department assistance.
4. If necessary, initiate a Site Evacuation.

6.4.2 Supplemental Actions

1. Refer to Section 5.2 of this ERP and follow applicable reporting requirements.
2. Initiate the post-emergency response incident investigation process as outlined in Section 7.0 of this ERP.



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Figure 6-1. Travel Routes from the Moab and Crescent Junction Sites to Allen Memorial Hospital

7.0 Post-Emergency Response Incident Investigation

A post-emergency critique shall be initiated by the Site Manager as soon as practicable following stabilization of the emergency condition.

If classification of the emergency or results of the critique indicate that further investigation is required, the Project Manager and the Project Safety Coordinator shall initiate additional investigation as required in the *Health and Safety Manual* (STO 2), Standard 4.1, "Occurrence Reporting and Processing of Operations Information."

Lessons learned from the critique and investigation shall be formally documented and distributed to appropriate personnel in an effort to prevent a similar emergency condition. Lessons learned report guidelines are available in the *Quality Assurance Manual* (STO 1), Quality Assurance Instruction 3.1. In addition, lessons learned will be incorporated into project personnel training and used to amend this plan as well as to institute corrective measures and procedures to avoid similar occurrences in the future.