

## Chapter 12

# JOB HAZARD ANALYSIS

November 1991



## POWER SYSTEM MAINTENANCE MANUAL



# JOB HAZARD ANALYSIS

DECEMBER 1991

WESTERN AREA POWER ADMINISTRATION  
POWER SYSTEM MAINTENANCE MANUAL  
CHAPTER 12

Approved for Publication and Distribution

*Gordon B. Greeny*

Director, Division of Power  
System Maintenance

11/14/91

Date

## **Disclaimer**

The information contained in this manual regarding commercial products or firms may not be used for advertising or promotional purposes and is not to be construed as an endorsement of any product or firm by the Western Area Power Administration (Western). The information contained in this manual was developed for Western; no warranty as to the accuracy, usefulness, or completeness is expressed or implied when used by other entities.

## **Preface**

This document is issued by Western Area Power Administration (Western) and is designed to provide general guidelines for the development and implementation of a comprehensive Job Hazard Analysis (JHA) program within Western.

The information in this document supplements the requirements of appendix A, paragraph 2, of the Power System Safety Manual (PSSM). Western policy regarding the use and application of JHA's is contained in the PSSM.

Any corrections or comments concerning this document may be addressed to the Western Area Power Administration, Division of Power System Maintenance, ATTN: A6210, Golden, Colorado.

# Table of Contents

1.	INTRODUCTION .....	1
2.	PURPOSE .....	1
3.	SCOPE .....	1
4.	INTERPRETATIONS AND DEFINITIONS .....	2
	4.1 Interpretations .....	2
	4.2 Definitions .....	2
5.	RESPONSIBILITIES .....	3
	5.1 Area/District Offices .....	3
	5.2 O&M Managers and Supervisors .....	3
	5.3 Job Supervisors .....	3
	5.4 Work Crew .....	3
	5.5 Safety Managers .....	3
6.	REQUIREMENTS FOR DEVELOPING, USING, AND MANAGING JHA'S ...	4
	6.1 Types of Activities Requiring Documented JHA's .....	4
	6.2 Jobs Which May Not Normally Require Documented JHA's .....	5
	6.3 Basic Guidelines for Developing JHA's. ....	5
	6.4 Recordkeeping Requirements .....	5
7.	TRAINING REQUIREMENTS .....	5
8.	REFERENCES .....	6
APPENDIX A	JHA Recording Form .....	7
APPENDIX B	JHA Examples .....	9
APPENDIX C	Common Jobs Requiring Written JHA's .....	15

# **1. Introduction**

The Western Area Power Administration (Western) regards safety and health as the primary consideration in any job, and is committed to preventing job-related accidents and illnesses by using proven methods of risk reduction such as “Job Hazard Analysis.”

Job Hazard Analysis (JHA) is a method of assessing the safety and health conditions that are peculiar to a job or task. It is a simple process and an effective tool for preventing job-related accidents and illnesses. The participatory process of identifying and then eliminating or controlling recognized hazards before commencing a task will create a safer and healthier work environment and can significantly contribute to the prevention of accidents. Therefore, it is important that all non-routine jobs be preceded with an analysis of the potential hazards and that the necessity for a documented JHA be determined.

## **2. Purpose**

The purpose of this document is to provide general direction and guidance in addressing the need for, developing, implementing, and managing a comprehensive JHA program within Western.

## **3. Scope**

The guidelines and recommendations for developing and establishing an effective JHA program provided in this document apply to all maintenance personnel in Western.

The objectives to be met are:

- Provide a work environment that is as safe and healthful as possible.
- Provide a means of recognizing and controlling work place hazards.
- Promote a cooperative and teamwork approach to risk reduction.

## 4. Interpretations and Definitions

4.1 Interpretations. The stated interpretations for the following words shall be applied throughout this document:

- “May” - Permissive Choice.
- “Must” or “Shall” - Mandatory under normal conditions.
- “Should” - Advisory. “Should” statements represent the best advice available at the time of printing.
- “Will” - Mandatory, but allowing the responsible employee or party some discretion as to when, where, and how.
- Male pronouns and related terms are used in reference to both male and female employees.

### 4.2 Definitions.

**Emergency** is a situation in which (1) facilities are in such a condition as to be a hazard to the public, Western personnel, or Western’s power system equipment or (2) there is a power outage to customers which could be a hazard to life or property.

**Hazard** is anything which can potentially endanger personnel, impair safe working conditions, and conceivably cause injury, loss of life, or damage to equipment.

**Job Hazard Analysis (JHA)** is a study of a job or activity to (1) identify hazards or potential accidents associated with each step or task and (2) develop solutions that will eliminate, modify, or prevent such hazards or accidents.

**Job Supervisor** is the person directly in charge at the work site.

**First Level Supervisors** are craft supervisors.

**Second Level Supervisors** are directors, branch chiefs, or section chiefs.

**Routine Job** is a periodic, normally scheduled task where the course of action is performed in accordance with established procedures.

**Non-Routine Job** is an infrequent task where the course of action is performed in accordance with the discussed or written work procedures.

**Specialized or Complex Jobs** are difficult and/or rare tasks where the course of action is performed in accordance with specific written work procedures and a documented JHA.

**Written Work Procedure** is a set of specific instructions outlining the course of action for performing tasks in a safe and timely manner.

**Critical Task** is a work procedure or process which, if not properly executed, could lead to an accident.

**Common Job** is a widely performed task whose basic work procedures are accepted Western-wide, such as live-line work.

## 5. Responsibilities

**5.1 Area/District Offices.** Each Area/District Office shall establish an effective JHA program in accordance with the requirements of the PSSM and the general guidelines given in this document. It will be the responsibility of each Area/District Office to clearly define which jobs require a written job hazard analysis. The Area/District Managers must assure that the guidelines contained in this document are reviewed and adopted for Area/District activities as appropriate. Sample copies of typical JHA's are listed in appendix B which can be referenced and used for developing specific JHA's.

**5.2 O&M Managers and Supervisors.** The O&M Managers and Supervisors shall:

- Ensure that the established JHA program is carried out in an effective manner.
- Assure that employees receive the proper training required to carry out the established JHA program.
- Participate in the development, review, and approval of JHA's for non-routine, specialized, and complex jobs as necessary.

**5.3 Job Supervisors.** The Job Supervisor will address the necessity for a JHA before engaging in the work activity. They must participate in the development, review, and approval of the JHA for the work activity. They are responsible for ensuring that the work crew accomplishes the particular job task according to the JHA. The Job Supervisor must ensure that every member of the work crew is given the opportunity to participate in the review of the JHA. The Job Supervisor should encourage crew members to participate in developing new JHA's. He should also ensure the completeness and consistency of all JHA's and route them for appropriate review and filing. Assuring that the safety requirements and pertinent work procedures are clearly defined and well understood by the work crew is also a responsibility of the Job Supervisor. If during the work activity, a safety concern is addressed by any member of the work crew, the job supervisor must resolve the issue and, if necessary, consult with higher management or safety personnel to resolve the issue. As the job progresses, the job supervisor must be alert for changes in conditions and events that may require review and modifications of a JHA.

**5.4 Work Crew.** Every member of a work crew has the responsibility to express their concerns as to unsafe and unhealthful conditions that exist or are anticipated at a job site. They are required to participate in the review of the JHA to obtain an understanding of the safety and health requirements and the work procedures of the job.

**5.5 Safety Managers.** The safety manager can assist in the development and establishment of the Area/District JHA program. The safety manager can assist in the development of the JHA's. Also, the safety manager can assist O&M personnel in identifying and arranging any required JHA training.

## 6. Requirements for Developing, Using, and Managing JHA's

### 6.1 Types of Activities Requiring Documented JHA's.

6.1.1 According to appendix A, paragraphs 1 (a) and 2(a) of the PSSM, the following tasks require a documented JHA:

- Live-line maintenance activities.
- Handling of materials classified by their material safety data sheets (MSDS) as highly toxic or extremely hazardous.
- Work in confined spaces requiring use of breathing apparatus.
- Work in excavations more than 4 feet deep in which a collapsing wall may trap employees within or cause vehicle or buildings to collapse into the excavation.
- Tasks which involve safety rule modification as allowed in the PSSM under section 1.3.a.
- Other work which the Area/District Office have identified as needing documented JHA's.

A list of the identified common jobs requiring a written JHA is summarized in appendix C. This list will be updated periodically to include other common jobs identified by the Area/District Offices requiring written JHA's. As each Area/District Office identifies these common jobs, the information needs to be forwarded to the Lines and Substations Branch (A6210) for inclusion in appendix C.

6.1.2 Other activities and criteria that should be taken into consideration when determining whether a documented JHA is needed.

- Do not just look for obvious hazards. Look at the total environment to identify all the potential hazards in a given task.
- Set priorities when developing JHA's. For example, most important priorities could be:
  - (a) Job Injury and Illness Severity - Those jobs that have involved disabling injuries or illnesses over those with minor injuries.
  - (b) Job Accident Frequency - Those jobs that have involved a lot of accidents, whether or not injury or illness has occurred.
  - (c) New Tasks - Even though there may be no accident histories for new tasks, the potential for accidents needs to be recognized. Also, new tasks may require a change in established procedures, which would require that everyone concerned with the task needs to be informed of the changes and instructed in the new procedures.
  - (d) Non-Routine Jobs - Tasks which are infrequently performed may involve hazardous conditions or have a history of accidents. These tasks need to be properly analyzed prior to engaging in the work activity to address and discuss the safety and health aspects of the job. Conducting a verbal JHA, coupled with the tailgate meeting, may be sufficient to address and discuss the potential hazards and countermeasures. However, if the job supervisor determines that a written JHA is deemed necessary, it is advisable that such document be appropriately developed and reviewed prior to engaging in the work activity.

- Health problems are not as visible or as dramatic as accidents because they usually do not occur all of a sudden. Nevertheless, those problems can be extremely costly and detrimental to employee health. A JHA can provide an effective means for uncovering such health hazards in a job operation.
- New employees on the job may require additional guidance and/or training. A JHA can show the new employee how to do the job correctly and safely.

### **6.2 Jobs Which May Not Normally Require Documented JHA's.**

- Routine jobs where the safety requirements and the pertinent work procedures are well defined and understood by the working personnel.
- Emergency jobs where the situation requires immediate response to the emergency. (see note below)

**Note:** Tailgate meetings must be conducted at the work site to identify the critical tasks associated with the work procedures and assess the safety and health requirements of the emergency job.

**6.3 Basic Guidelines for Developing JHA's.** It is recommended that WAPA Form 6500.56 shown in appendix A be used when documenting JHA's in Western. When developing the applicable JHA, keep in mind the following:

- (1) Examine each step of the given job to identify the potential hazards and critical tasks (action, conditions, and possibilities) that could lead to personal injury or equipment damage.
- (2) Determine the required corrective action needed to eliminate or control recognized hazards.
- (3) List and discuss the applicable safety and health requirements and standards, such as the PSSM, Power System Maintenance Manual (PSMM), and Power System Operations Manual (PSOM).
- (4) If written procedures are required, review and discuss them before engaging in the job activity.

**6.4 Recordkeeping Requirements.** After the documented JHA is discussed and reviewed, route a copy of the JHA as indicated on WAPA Form 6500.56 for information and proper filing if necessary. It is recommended that each Area or District Office file all JHA's for future reference.

**Note:** It is recommended that the written work procedures placed on file as part of a JHA be periodically reviewed for changes in safety and health requirements.

## **7. Training Requirements**

Each Area/District Office is responsible for addressing their appropriate JHA training requirements.

## 8. References

National Electric Safety Code, 1990 edition, The Institute of Electrical and Electronics Engineers, Inc., August 1989.

Occupational Safety and Health Administration (OSHA), Code of Federal Regulations, Title 20, Part 1926 (20 CFR 1926), Safety and Health Regulations for Construction.

Occupational Safety and Health Administration (OSHA), Code of Federal Regulations, Title 29, Part 1910 (29 CFR 1910), General Industry Occupational Safety and Health Regulations.

American Society for Testing and Materials (ASTM), F-855-83, 1988 and subsequent revisions.

American National Standards Institute (ANSI) Standards

American Welding Society (AWS) Rules

Environmental Protection Agency (EPA) Rules and Regulations

Institute of Electrical and Electronic Engineers (IEEE) Standards

National Fire Protection Association (NFPA) Rules and Regulations

**Power System Safety Manual**, Western Area Power Administration, February 1989.

**Power System Clearance Procedures (PSCP)**, Western Area Power Administration, January 1989, and subsequent revisions.

## APPENDIX A - JHA Recording Form



## APPENDIX B - JHA Examples

**U.S. DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
JOB HAZARD ANALYSIS**

Activity Description: Ground Mat Testing				Routing: _____	
Activity Location: XYZ Substation		Date of Activity: 9/12/90		_____	
JHA Prepared by: Job Supervisor		Date: 9/6/90		_____	
Joint JHA considered? <input type="checkbox"/> No (Yes, if more than one discipline is involved)				_____	
Are written procedures required? <input type="checkbox"/> No If so, attach copy.				_____	
<b>PERSONNEL INVOLVED</b> (include engineers, other crafts, and other agencies)				JHA Review Date:	
Responsible Job Supervisor: Job Supervisor				9/12/90	
<b>WORK CREW</b>			<b>OTHER PERSONNEL</b>		
Name	Init.	Name	Init.	Name	Init.
Job Supervisor					
Technician					
Engineer		(Use specific			
Journeyman Electrician		personnel names)			
<b>LIST OF SPECIAL EQUIPMENT AND TOOLS:</b>					
(1) Digital Earth Ground Tester, (2) Test leads and accessory equipment,					
(3) Portable radios, and (4) Hot-stick					
<b>SPECIAL INSTRUCTIONS OR LIMITATIONS:</b> Consider: (1) Energized equipment (2) Experience of work crew (3) Engineering expertise available (4) Clearances and grounding requirements (5) Emergency capabilities such as CPR, First Aid (6) List applicable sections of such standards as PSSM, PSOM.					
(1) Tests will be performed in accordance with the requirements of Chapter 8, Ground Mat Resistance Testing Procedures, PSMM. (2) A tailgate meeting will be held at the work site to review the JHA and the safety aspects of the job. (3) The work activity will be performed under the direction and continuous supervision of the job supervisor. (4) Working personnel will comply with the applicable sections of the PSSM.					
<b>LIST OF IDENTIFIED HAZARDS AND HOW TO MINIMIZE OR ELIMINATE THEM</b>					
ACTIVITY	IDENTIFIED HAZARDS		CORRECTIVE ACTION		
(1) Connection and Disconnection of P <sub>2</sub> lead from potential probe.	(1) Electric Shock		(1) Insulate P <sub>2</sub> connection from test instrument before handling it remotely.		
(2) Handling of test leads.	(2) Placing yourself in series with the circuit.		(2) Avoid placing yourself in series with the leads.		
(3) Walking on rough terrain.	(3) Fatigue, falling down,		(3) Be cautious, take appropriate rest periods, and wear appropriate footwear.		
(4) Work Environment.	(4) Fatigue, heat stroke, and dehydration.		(4) Take appropriate rest periods and have drinking water available.		

(USE BACK SIDE IF ADDITIONAL SPACE IS NEEDED)

**U.S. DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
JOB HAZARD ANALYSIS**

Activity Description: <u>Live-line Maintenance Work</u>				Routing: _____ _____ _____	
Activity Location: <u>Somewhere #2 - 230kV line</u>		Date of Activity: <u>6/11/87</u>			
JHA Prepared by: <u>Crew Supervisor</u>		Date: <u>6/8/87</u>			
Joint JHA considered? <u>No</u> (Yes, if more than one discipline is involved)					
Are written procedures required? <u>Yes</u> If so, attach copy. (*see back)					
<b>PERSONNEL INVOLVED</b> (include engineers, other crafts, and other agencies)				JHA Review Date:	
Responsible Job Supervisor: <u>Crew Supervisor</u>				<u>6/13/87</u>	
<b>WORK CREW</b>			<b>OTHER PERSONNEL</b>		
Name	Init.	Name	Init.	Name	Init.
<u>Line Supervisor</u>		<u>Apprentice Lineman</u>		<u>Engineer</u>	
<u>Journeyman Electrician</u>		<u>(Use specific</u>		<u>Technician</u>	
		<u>personnel names)</u>			
<b>LIST OF SPECIAL EQUIPMENT AND TOOLS:</b> <u>Heavy equipment such as line trucks and properly designed and tested live-line tools will be used during the work activity. Protective apparel such as hard hats, safety belts, and conductive footwear will be worn. Safety ropes, insulator tester, and portable generator will be used.</u>					
<b>SPECIAL INSTRUCTIONS OR LIMITATIONS:</b> Consider: (1) Energized equipment (2) Experience of work crew (3) Engineering expertise available (4) Clearances and grounding requirements (5) Emergency capabilities such as CPR, First Aid (6) List applicable sections of such standards as PSSM, PSOM.					
<u>(A) Hot-line orders will be secured during the exercise in accordance with the Power System Operations Manual (PSOM), Chapter 1.</u>					
<u>(B) Adhere to the guidelines and recommendations given in the Power System Maintenance Manual (PSMM), Chapter 3, Live-line Maintenance.</u>					
<b>LIST OF IDENTIFIED HAZARDS AND HOW TO MINIMIZE OR ELIMINATE THEM</b>					
ACTIVITY	IDENTIFIED HAZARDS		CORRECTIVE ACTION		
<u>Live-line maintenance work by the "hotstick" method.</u>	<u>(A) Performing work in the proximity of energized conductors.</u>		<u>(A)Follow formal written procedures for each work activity. Safety meetings will be held prior to Com-</u>		
			<u>mencing the work to analyze and discuss the Potential</u>		
			<u>hazards and to address the</u>		
			<u>appropriate countermeasures.</u>		
			<u>Personnel movement will be</u>		
			<u>continuously monitored by</u>		
			<u>supervisor to ensure that</u>		
			<u>minimum working distances</u>		
			<u>are not encroached. (Cont.)</u>		

(USE BACK SIDE IF ADDITIONAL SPACE IS NEEDED)

\*For written procedures, see Area manual.

SPECIAL INSTRUCTIONS OR LIMITATIONS (cont.):

- C) The work will be performed under the supervision and direction of knowledgeable supervisors using written specific procedures.\*
- D) Safety (tailgate) briefings will be conducted on site prior to commencing the work to review and discuss the pertinent procedures and to address the safety aspects of the job.
- E) Lineman will be currently trained in first aid, CPR, and rescue and resuscitation procedures.
- F) In-service porcelain insulator strings will be tested prior to removal.
- G) New porcelain insulator strings will be tested on the ground prior to installation (hi-lites insulator strings need not be tested).
- H) Proper protective grounding equipment will be utilized where necessary so as to ensure maximum safety.
- I) A list of local emergency telephone numbers is attached for emergency use if needed.

LIST OF IDENTIFIED HAZARDS AND HOW TO MINIMIZE OR ELIMINATE THEM (cont.)

- A) CORRECTIVE ACTION: Use of safety protective equipment and safety apparel will be required.
- B) IDENTIFIED HAZARD: Climbing heights in excess of six (6) feet.  
CORRECTIVE ACTION: Safety belts and safety straps will be used. Review specific procedures with supervisors and workmen in a safety briefing fully describing the work assignment, with emphasis on personnel movement and security of support devices. Inform workmen to keep alert.
- C) IDENTIFIED HAZARD: Falling tools.  
CORRECTIVE ACTION: Wear hard hats. Secure tools properly. Use canvas bag to raise and lower small tools. Keep non-working personnel away from working area.
- D) IDENTIFIED HAZARD: Excessive wind.  
CORRECTIVE ACTION: Postpone or stop work.
- E) IDENTIFIED HAZARD: Inclement weather (rain, lightning).  
CORRECTIVE ACTION: Stop work.
- F) IDENTIFIED HAZARD: Potential road hazards encountered while driving to/from the working area.  
CORRECTIVE ACTION: Observe and comply with all speed limits and traffic laws. Consult with land owners ahead of time to lessen any potential hazards which may be encountered when entering or leaving the property.
- G) IDENTIFIED HAZARD: Fatigue. CORRECTIVE ACTION: Monitor work activity at all times to observe physical performance and to provide rest periods at opportune times.
- H) IDENTIFIED HAZARD: Water on ground surface. CORRECTIVE ACTION: Proceed with caution, make sure that insulated tools are dry and free of contamination.

**U.S. DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
JOB HAZARD ANALYSIS**

Activity Description: Handling faulted sulfur hexafluoride gas and residue				Routing: _____	
Activity Location: Anywhere Substation		Date of Activity: 3/24/88		_____	
JHA Prepared by: Job Supervisor		Date: 3/21/88		_____	
Joint JHA considered? <input type="checkbox"/> No <input type="checkbox"/> Yes (Yes, if more than one discipline is involved)					
Are written procedures required? <input type="checkbox"/> No <input type="checkbox"/> If so, attach copy.					
PERSONNEL INVOLVED (include engineers, other crafts, and other agencies) Responsible Job Supervisor: Job Supervisor				JHA Review Date: 3/21/88	
<b>WORK CREW</b>				<b>OTHER PERSONNEL</b>	
Name	Init.	Name	Init.	Name	Init.
Electricians					
(Use specific personnel names)					
<b>LIST OF SPECIAL EQUIPMENT AND TOOLS:</b> <u>Chemical safety goggles, respirator (airline supplied hood), gloves, showers or portable wash tank, disposable coveralls, slip-on boots (if needed), oxygen detector (if available).</u>					
<b>SPECIAL INSTRUCTIONS OR LIMITATIONS:</b> Consider: (1) Energized equipment (2) Experience of work crew (3) Engineering expertise available (4) Clearances and grounding requirements (5) Emergency capabilities such as CPR, First Aid (6) List applicable sections of such standards as PSSM, PSOM.					
A) Obtain a clearance.					
B) Prepare the gas transfer cart to evacuate the equipment and back fill it with air.					
C) Equalize the pressure inside the equipment before opening it.					
D) Vacuum the inside of the breaker to remove any powder residue.					
E) Wear the appropriate safety apparel. F) Perform a moisture check.					
<b>LIST OF IDENTIFIED HAZARDS AND HOW TO MINIMIZE OR ELIMINATE THEM</b>					
ACTIVITY	IDENTIFIED HAZARDS		CORRECTIVE ACTION		
(1) Handling faulted SF <sub>6</sub> gas.	(1) Poisoning, skin and eye contact.		(1) Review the material safety data sheet (MSDS). Use the appropriate protective apparel (see above), never work alone.		
(2) Transfer of SF <sub>6</sub> gas between cart and breaker	(2) Skin and eye contact, frostbite, asphyxiation.		(2) Wear appropriate protective apparel (see above).		
(3) Handling power residue.	(3) Poisoning.		(3) Vacuum inside the breaker. wear appropriate protective apparel (see above).		

(USE BACK SIDE IF ADDITIONAL SPACE IS NEEDED)

**U.S. DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
JOB HAZARD ANALYSIS**

Activity Description: Pull transformer on cart from transformer pad.				Routing: _____	
Activity Location: Somewhere Substation			Date of Activity: 9/21/87		_____
JHA Prepared by: Job Supervisor			Date: 9/15/87		_____
Joint JHA considered? <input checked="" type="checkbox"/> Yes (Yes, if more than one discipline is involved)					
Are written procedures required? <input type="checkbox"/> No If so, attach copy.					
<b>PERSONNEL INVOLVED</b> (include engineers, other crafts, and other agencies)				JHA Review Date:	
Responsible Job Supervisor: Job Supervisor				9/21/87	
<b>WORK CREW</b>				<b>OTHER PERSONNEL</b>	
Name	Init.	Name	Init.	Name	Init.
Job Supervisor					
Journeyman Lineman #1					
Journeyman Lineman #2		(use specific			
Apprentice Lineman		personnel names)			
<b>LIST OF SPECIAL EQUIPMENT AND TOOLS:</b> <u>International line truck (deck winch), cable slings, shackles, jacks (hydraulic) on newly installed tracks for compaction, cable blocks, wrenches.</u>					
<b>SPECIAL INSTRUCTIONS OR LIMITATIONS:</b> Consider: (1) Energized equipment (2) Experience of work crew (3) Engineering expertise available (4) Clearances and grounding requirements (5) Emergency capabilities such as CPR, First Aid (6) List applicable sections of such standards as PSSM, PSOM.					
A) All personnel/job knowledge of what is to be done and how.					
B) Line truck deck winch/pulling transformer and cart.					
C) Cable slings of rated value of pull. D) Blocks for stabilization of cart.					
D) Vehicle grounds/protection from energization. F) Tailgate/prior to start of work.					
E) Emergency: fire, ambulance, sheriff, paramedics: dial 9-1-1.					
<b>LIST OF IDENTIFIED HAZARDS AND HOW TO MINIMIZE OR ELIMINATE THEM</b>					
ACTIVITY	IDENTIFIED HAZARDS			CORRECTIVE ACTION	
- Handling and setting up equipment and tools.	- Cuts, abrasions, hand injuries			- Wear gloves.	
	- Flying and falling objects.			- Wear safety glasses, hard hats, and steel toe shoes.	
	- Snapping of winch lines.			- Clear area prior to starting work.	
	- Crushing weights.			- Clear work area.	
	- Tipping of equipment			- Proceed at minimum speed.	

(USE BACK SIDE IF ADDITIONAL SPACE IS NEEDED)

## APPENDIX C - Common Jobs Requiring Written JHAs

Insert identified common jobs Area/District Offices here.

**Note:** A copy of these identified common jobs shall also be sent to: Chief, Lines and Substations Branch (A6210), Golden, Colorado.