

Knight/Jacobs Joint Venture WORK INSTRUCTION 	Work Instruction No.: 602	Pages: 4
	Revision: 1	Previous Revision date: 07/30/02
Subject: Work on or Near Energized Circuits	Prepared By: <i>Wayne E. Blou</i> Department Approval: <i>[Signature]</i> Project Management Approval: <i>[Signature] 11/07/2</i>	

1.0 PURPOSE

The purpose of this Work Instruction (WI) is to define requirements for safely performing work on or near energized circuits.

2.0 SCOPE

This WI covers work performed to troubleshoot, test, repair and work on or near energized electrical circuits where it is impractical to de-energize the circuit or equipment. This instruction does not apply to lock-out/tag-out process as explained in WI-601; "Lock-out/Tag-out."

3.0 DEFINITIONS

- 3.1. Authorized Electrical Supervisor – The Construction Manager or Designee, Subcontractor General Foreman, Foreman or a person functioning in a similar capacity who is also a "qualified person."
 - 3.1.1. Responsible for selecting qualified persons with experience, knowledge and training to perform the work.
 - 3.1.2. Responsible for completing the required "Work on or Near Energized Circuits Checklist" (Attachment 1) and the "Work on or Near Energized Circuits Memorandum" (Attachment 2).
- 3.2. Qualified Person – Person familiar with the construction and operation of the equipment and the hazards involved.

4.0 METHOD (PROCEDURE)

- 4.1. Work on or near energized circuits shall be coordinated with the Lock-out/Tag-out Supervisor or his/her designee defined in WI-601; "Lock-out/Tag-out."
- 4.2. The Authorized Electrical Supervisor will ensure the work area will be cleared of all unnecessary material and equipment prior to beginning work.
- 4.3. The Authorized Electrical Supervisor or qualified person will complete a Work on or Near Energized Circuits Memorandum (Attachment 2) and provide to the LOTO Supervisor for approval.
- 4.4. The Authorized Electrical Supervisor or a qualified person will assemble necessary tools and safety equipment in accordance with Work on or Near Energized Circuits Checklist.

WARNING: When a qualified person is not present, covers or barriers must remain in position to prevent energized parts from being exposed.

- 4.5. A qualified person shall be in the work area any time energized parts are exposed.
- 4.6. A qualified person shall complete the electrical safety checklist and initial the Work on or Near Energized Circuits Checklist (Attachment 1)

CAUTION: The completed Electrical Safety Checklist shall be displayed at the area where the work is to be performed, and removed only when work is complete.

- 4.7. This Work Instruction does not apply to the following conditions:
 - 4.7.1. Energized parts that operate at less than 50 volts to ground.
 - 4.7.2. There will be no increased exposure to electrical burns or to explosion due to electrical arc.
- 4.8. WHEN "Work on or Near Energized Circuits" has been completed, THEN the Authorized Electrical Supervisor shall ensure the following:
 - 4.8.1. All affected equipment has been returned to normal conditions.
 - 4.8.2. All removed covers are replaced and doors are closed.
 - 4.8.3. All flagging and barriers installed prior to beginning task has been removed.

5.0 RELATED DOCUMENTATION (REFERENCES)

- 5.1. WI-601; "Lock-out/Tag-out"

6.0 RECORDS

- 6.1. Work on or Near Energized Circuits Checklist
- 6.2. Work on or Near Energized Circuits Memorandum

7.0 ATTACHMENTS/APPENDICES

- 7.1. Attachment 1; Sample Work on or Near Energized Circuits Checklist
- 7.2. Attachment 2; Sample Work on or Near Energized Circuits Memorandum

Attachment 1
 Sample Work on or Near Energized Circuits Checklist

WORK ON OR NEAR ENERGIZED CIRCUITS CHECKLIST

Contractor	Location – Equipment #	Date

Description of work to be performed:

Volts

Electrical Safety Checklist	Yes	No	Employee Initials
Work on energized circuit			
Work near energized circuit			
Isolation device located			
Qualified person(s)			
Electrical safety observer (required for 480V or more)			
Memorandum attached (not required for testing)			
100% agreement on what/how work to be performed	Yes		
Insulating tools			
Insulating gloves			
Insulating blankets/barriers			
Face shield			
Work area to be flagged	Yes		
"Danger Energized Electrical Circuits" sign	Yes		
Work area housekeeping review	Yes		
Control of unauthorized personnel	Yes		
Sufficient illumination	Yes		
Removal of personal jewelry/conductive items	Yes		
Phone or fire alarm or other communication location	Yes		
Special instructions			

Attachment 2
Sample Work on or Near Energized Circuits Memorandum

WORK ON OR NEAR ENERGIZED CIRCUITS MEMORANDUM

When work on or near energized circuits is required, the Authorized Electrical Supervisor shall write a memorandum stating that the circuit or equipment cannot be de-energized due to introducing additional or increased hazards, or is not feasible due to equipment design or operational limitations.

Description of work to be performed:

Volts

Reason circuit or equipment cannot be de-energized:

Signature	Date

Comments:

LOTO Supervisor Signature	Date